

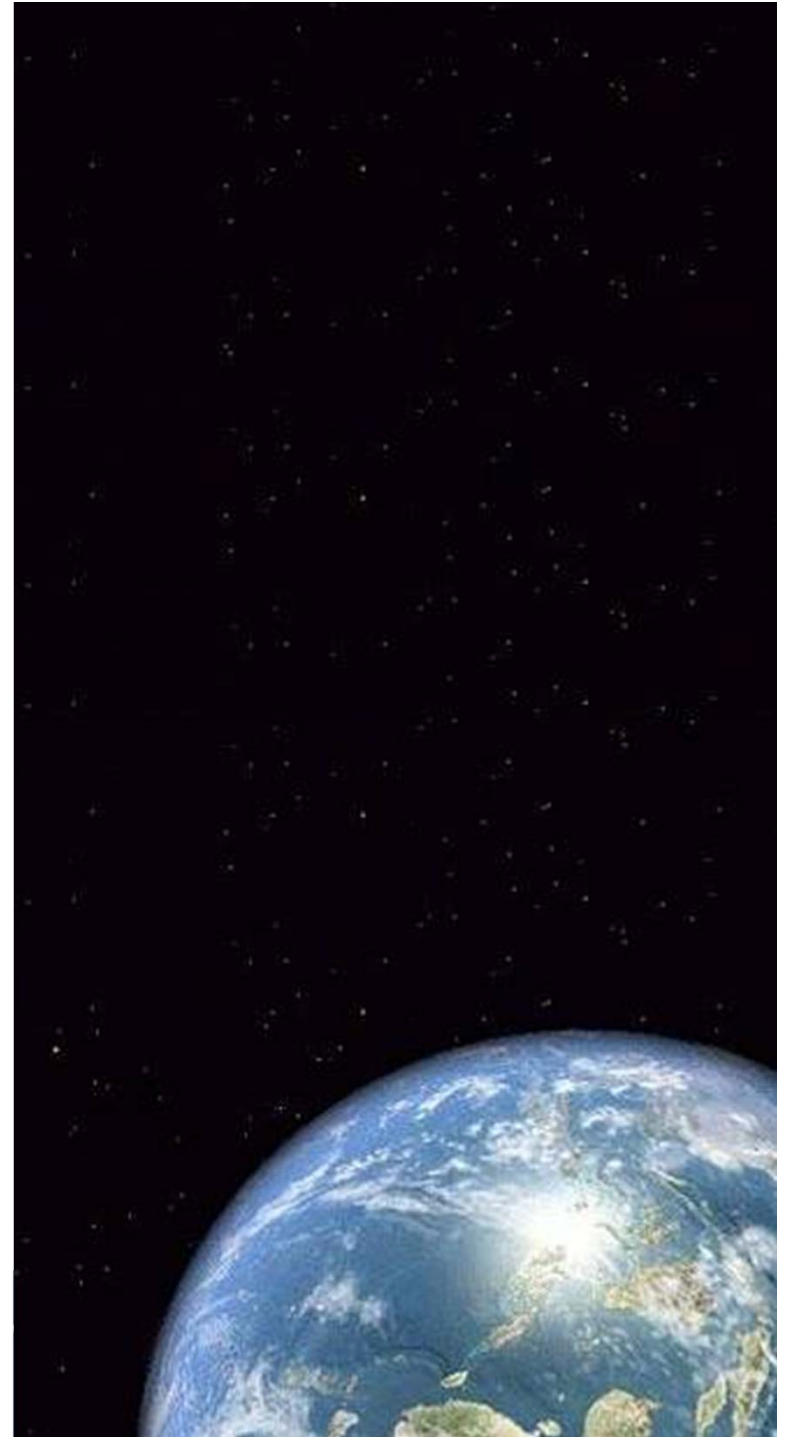


COE CST First Annual Technical Meeting:

Wearable Biomedical Monitoring Equipment for Passengers on Suborbital & Orbital Flights

Richard T. Jennings, MD

November 10, 2011



Overview

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



Team Members

- Jon Clark, Baylor Center for Space Medicine
- Jimmy Wu, Wyle
- Christine Smith, Wyle
- John B. Charles, NASA-JSC
- Anil Menon, MD, MPH*
- Jennifer Law, MD, MPH*
- Jim Vanderploeg, MD, MPH UTMB (Co-PI)

Objectives

- Determine human physiological parameters and data to be collected
- Identify/set design requirements and procure prototype biomedical monitoring equipment to be incorporated into a wearable vest, harness, or flight suit to support the operational monitoring needs of flight surgeons as well as the research interests of space scientists and physiologists.

Research Methodology

- Comprehensive review of existing wearable biomedical monitoring equipment to determine availability of off-the-shelf equipment.
- Survey flight surgeons, research scientists, and space vehicle operators to seek input on the features and capabilities needed from biomedical monitoring.
- The capabilities of existing hardware and software will then be compared with the needs and desires of the operational and research community to identify gaps.

Research Methodology

- Using gap analysis, the team will identify new technologies that are needed to fill these gaps. The gap analysis will explore which existing technologies can be repackaged and incorporated into a wearable system.
- The prototype hardware configurations will be tested under the expected G profiles in various operator's launch/landing systems using the NASTAR Center.



COE CST First Annual Technical Meeting (ATM1)
November 9 & 10, 2011



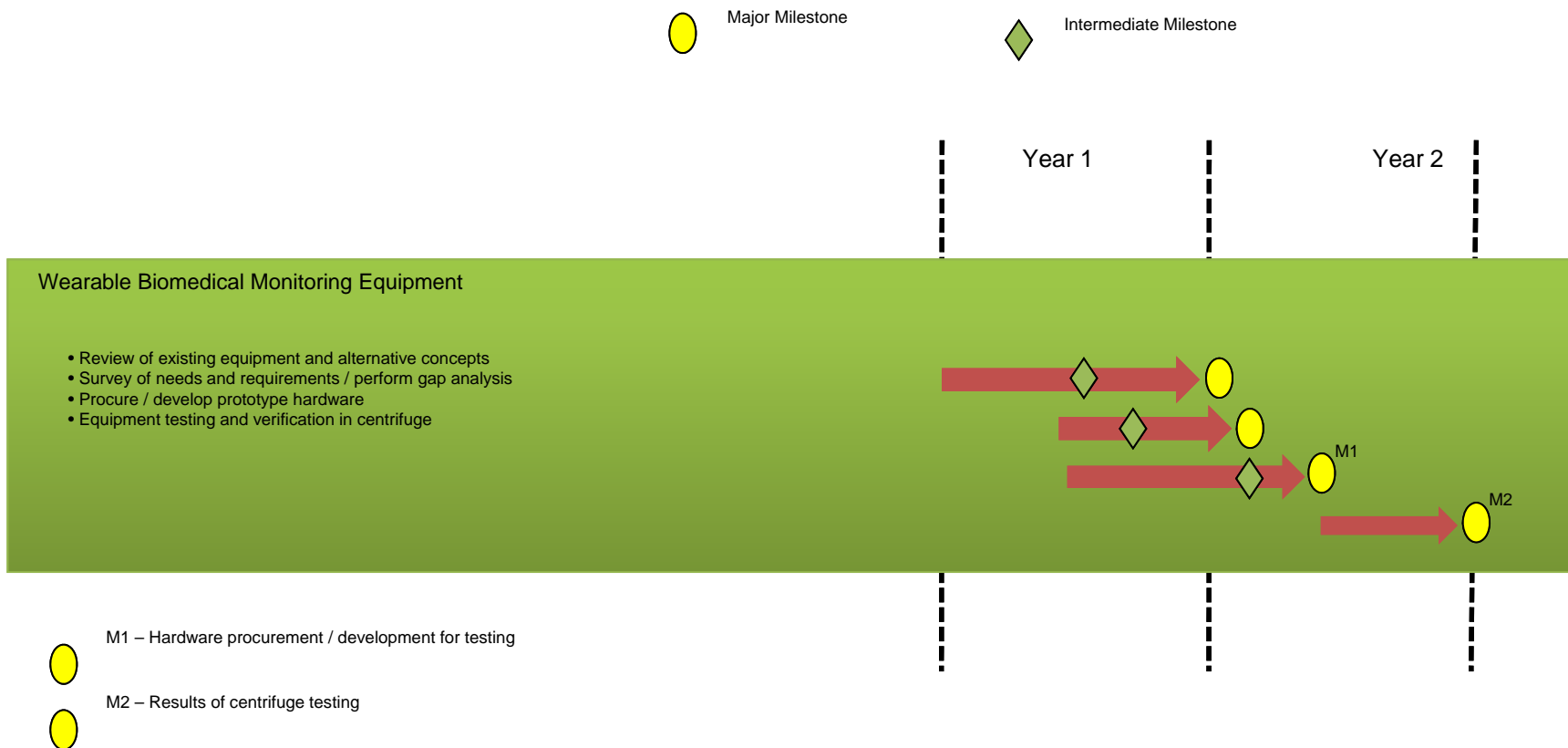
Federal Aviation
Administration

“ I see that you’ve been to NASTAR.”



Results and Schedule

- Initial Team Meeting April 27, 2011
- Market Survey Completed(NASA Partnership)
- Draft Document and Gap Analysis Underway



Contact Information

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