



**Federal Aviation  
Administration**

# Report to COMSTAC of the Operations Working Group

Presented to: COMSTAC

By: Janet Karika,  
OWG Chair

Ray Johnson, OWG Deputy Chair

Date: September 17, 2014



# OWG Agenda

## Operations Working Group 3:00 p.m. – 5:00 p.m. Janet C. Karika, Chair

3:00 – 3:15	Introductions, Review of Previous OWG	Janet Karika, Chair
3:15 – 3:40	Air Force Current Launch Schedule Review Board (CLSRB) Overview	TSgt Wilson Lugo, HQ AFSPC
3:40 – 4:00	Proposed Spaceport Guide	Robert Consolo, ERAU
4:00 – 4:15	Recommended Practices for Human Spaceflight Occupant Safety	Mr. Randy Repcheck, FAA/AST
4:15 – 4:45	Proposed Initial Commercial Spaceflight Standards	Janet Karika, Chair
4:45 – 5:00	New Business, Wrap Up, OFRs	Janet Karika, Chair



# Operations Working Group (OWG) Overview

- **Operations Working Group Charter**

- Identifies key launch operations, support, and processing issues affecting U.S. commercial space competitiveness
- Supports accessibility of new commercial space ventures to launch sites and services
- Investigates options for commercialization/privatization of launch services, support, and facilities.

- **COMSTAC OWG members**

Chair: Janet Karika, Vice Chair: Ray Johnson

- |                      |                     |                         |
|----------------------|---------------------|-------------------------|
| – Brett Alexander    | - Mike Gold         | - Debra Facktor Lepore  |
| – Christine Anderson | - Jeff Greason      | - Michael Lopez-Alegria |
| – Mark Campbell      | - Livingston Holder | - Russ McMurry          |
| – Dan Collins        | - Tim Hughes        | - Charlie Precourt      |
| – Patricia Cooper    | - Steve Isakowitz   | - Carl Rising           |
| – Pete Fahrenthold   | - Bill Khourie      | - Mark Sundahl          |
| – Oscar Garcia       | - Chris Kunstadter  | - Will Trafton          |



# **Air Force Current Launch Schedule Review Board (CLSRB) Overview**

## **Observation**

- **Current Air Force CLSRB process meets current Air Force Range needs**
- **The full potential commercial use of Air Force Ranges is unknown at this time**

## **Finding**

- **Transparency into Air Force Range Scheduling is beneficial to both Government Agencies and Industry**
- **Future demand by both commercial and government launch customers on Air Force Ranges may present a challenge that will continue to be evaluated**



# **Recommended Practices for Human Spaceflight Occupant Safety**

## **Observations**

- **FAA's response to COMSTAC collected comments has generated some questions**

## **Recommendation**

- **FAA/AST and COMSTAC continue to work together to further define the recommended practices**



# Medical Issues for Commercial Suborbital Space Flight Crewmembers

## Observation

- Minimal suborbital flight operational experience above 100 km exists

## Finding

- Database needs to be expanded, medical evaluations and an independent data repository would be helpful

## Recommendations

- *FAA/AST should require an FAA First Class medical certificate for pilots with a well defined, documented, and communicated waiver process inherent to medical certification similar to past spaceflight experience. FAA/AST should begin the process of modifying the regulation.*
- FAA/AST should periodically re-evaluate medical standards for flight critical crewmembers
- FAA/AST should advocate to the suborbital industry for investigation and documentation on the effects on flight critical crewmembers performance from effects of multiple suborbital flights
- FAA/AST should establish a non-attributable repository for flight critical crewmember medical data



# Proposed Initial Commercial Spaceflight Standards

## Observations

- **Industry standards for commercial spaceflight are beneficial and needed**
  - Congress and the FAA have stressed the need for the creation of industry standards
- **Standards must be prioritized and an initial list created and submitted to establish the standards development process**

## Recommendation

- **FAA/AST and industry via COMSTAC engage in on-going dialogue on development of human commercial spaceflight industry standards and establish the process through which a prioritized list of these standards will be ratified.**
  - An initial list is attached. The COMSTAC will begin vetting the next list for submission via the newly formed Standards Working Group



Attachment 1  
Proposed Initial Commercial Spaceflight Standards  
Submitted to the FAA by COMSTAC, 17 September 2014

1. Breathable Atmosphere
2. Crew-Imparted Loads
3. Hazardous Test Notification
4. Landing Gear
5. Occupant Restraints and Acceleration Support
6. Propellant Handling
7. Risk Communication

