Proposal for Ground Safety Review Coordination at ISS Launch Sites

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Chairman, ISS GSRP at KSC
Introduction

• As the transportation of ISS payloads and cargo shifts from KSC to other launch sites, close coordination of ground safety review processes would be of benefit to all parties.

• The benefit would have the launch sites receiving consistent data that would require less effort to review while still meeting their needs.
Background

• Until recently, ground safety focus for the ISS program has been almost exclusively for pre-launch processing at KSC/post-landing processing at KSC/DFRC

• Each launch site, used by the ISS Program, has a ground safety review process
  — Ground safety viewed as local prerogative

• Up till now, ground processing has consisted of low risk/low hazard items; but this will not always be the case.
Issues

• Recent coordination issues associated with the ground safety review of ORU’s to be processed at Tanegashima for HTV-2, illustrate that IP ground safety review processes are not well understood by the ISS community at large
  – Confusion for data providers (US only?)
• Lack of internal review process for data being submitted to launch sites can lead to inconsistent submittals
  – NCRs/HRs
• Majority of IP ground safety requirements are based upon old KHB 1700.7 (now KNPR 8715.3, Chapter 20)
Proposals

• Establish a ground safety working group as part of the MS&MAP
  – Search for efficiencies in requirements and data submittal processes
  – Document processes in NSTS 13830/SSP 30599
• Each launch site report out its payload ground safety status at the F2F (Monthly’s as required)
  – Completions/due dates/NCRs/issues/changes
• Establish internal processes for review of ground safety submittals
COPV TIM

- A TIM is planned to be held at KSC on 7/8/9 December
- Topics include:
  - Status of the 1993 NASA/USAF Policy Letter
  - Viability of 1.1 Pressure Test
  - Metal Liner Testing
  - Moving towards common requirements
    - Flight and Ground
  - CPV/CPS/Hybrid requirements
ISS/STS Ground Status
@ KSC

Paul Kirkpatrick
NASA/KSC Safety
Space Shuttle Status

• Discovery (OV-103)
  – Location – On-Orbit/KSC (OPF3)
  – Last Mission – STS-133/ULF5 (PMM)
  – Next Mission – Museum (Smithsonian)
• Endeavor (OV-105)
  – Location – OPF Bay 2
  – Last Mission – STS-130/20A (Node3/Cupola)
  – Next Mission – STS-134/ULF6 (AMS)
    • Rescue for STS-133
  – Scheduled Launch Date – 26 FEB 2011 ~1600 EST
• Atlantis (OV-104)
  – Location – OPF Bay 1
  – Last Mission – STS-132/ULF4
  – Next Mission – STS-135/ULF6
    • Rescue for STS-134
  – Scheduled Launch Date – 28 JUN 2011 ~1530 EDT
KSC Flight Hardware Quicklook/STS Mainline Facilities

**Launch Pad 39-B**
- STS-133 OV-103
- Launch 11-1-10 MLP-3
- Return/Parachute (East)

**Launch Pad 39-A**
- STS-133 OV-103
- New MLP
- Return/Parachute (West)

**Vehicle Assembly Building**

**Orbiter Processing Facilities**

**Legend**
- STS-135 OV-103 P1 NH
- ET-137 MLP-2 / VAB HS5 / PAD A
- ET-132 MLP-2 / VAB HS1-1 / PAD A
- ET-135 MLP-1 / VAB HS2 / PAD A
- ET-134 MLP-2 / VAB HS1-1 / PAD A
- ET-136 MLP-2 / VAB HS2 / PAD A

**STS Assignments**
- OV-103/STS-135: Discovery
- OV-104/STS-134: Endeavor
- OV-105/STS-335: Atlantis

**HMF OV Assignment/Location**

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Space Shuttle Program (SSP) Manifest

103
Discovery
128 (17A)
8/28/09
MPLM (P)
LMC

104
Atlantis
129 (ULF3)
11/16/09
ELC1
ELC2

105
Endeavour
130 (20A)
2/8/10
Cupola
Node3

Flight Rate:

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Chart updated: 10-September-2010