

National Aeronautics and Space Administration

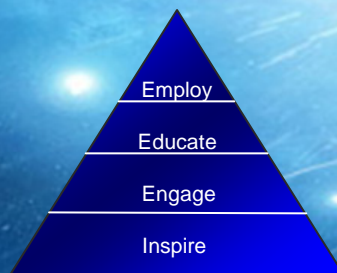


ISS National Lab Education Project

ARISS International Delegates Meeting

Houston, TX - USA

October 28 - 29, 2011



Dr. Regina B. Blue

regina.b.blue@nasa.gov

www.nasa.gov

ARRISS ISS Ham Radio Status

Operational Workarounds For Power Port Allocation in Columbus

ISS Ham and TEPC simultaneous powered operations in Columbus.

- 1. Chit 9823 – complete (clarified power port locations in Columbus)**
- 2. Chit TBD**
 - Includes incorporation of W cable into ISS Ham-Columbus configuration
 - Update to ICD is required (still in development)



ARISS ISS Ham Radio Status

Delivery of Spare Ericsson VHF Transceiver + Cable (TBD flight)

ISS Ham Radio in Columbus consists of Ericsson Radio UHF and VHF single band radio

- ✚ At this time only the UHF transceiver is operational
- ✚ VHF transceiver is not working properly and is stowed
- ✚ VHF unit/cable replacement is being prepared for launch aboard TBD flight



Payload Integration Manager (PIM) Status

- ✚ **Manifest:** CEF is in work to request manifest on TBD flight
- ✚ **HFIT:** completed by HFIT group at KSC; hardware is packed for flight at the Cargo Mission Contractor in Florida. All H/W reviews, labels, documentation, delivery - handled by KSC HFIT group. HFIT will take care of the CofCs.
- ✚ **PEI-ICD/PIRN:** in work
 - Updated verification submittals are in work
- ✚ **Safety:** 906 and GSCL (both pending additional safety data) were submitted to OC and PSRP (though GSCL not required by PSRP).
- ✚ PSRP Series assessment Safety Data Package and Form 622 is complete (will update TBD flight when baselined and annotate previous flight history)
- ✚ **Schedule and S/L:** Posted to PIM webpage





Kenwood D700E Ham radio

- The ARISS program would like to deploy the Kenwood D700E dual band HAM radio in the Columbus Module.
 - ✚ **The same system is currently being used in the ISS Service Module**
 - ✚ **Modifications to the D700E COTS radio would include:**
 - Install a new power cable with Teflon insulated wire and a new connector that will be compatible with our planned power supply
 - Install a new cable for the Microphone and remote panel
 - Change out the Data connector to make it compatible with existing equipment onboard ISS
- AMSAT proposes to provide a dedicated power converter that would:
 - ✚ **convert the Columbus module 120V DC power**
 - ✚ **be derived from the Black Brick power supply currently being used on the ISS**
 - ✚ **meet COL-RIBRE-0164_1-B**
 - ✚ **interface to a Columbus UOP directly or to the PS-120**
- The details of the engineering and safety reviews & overall schedule are still in work
- It is planned for a ISS National Lab Payload Implementation Partner (PIP) agreement (i.e., Nanoracks, LLC) to conduct the flight certification/PSRP coordination for the Kenwood D700E + Power Supply delivery to ISS planned for 2013



Open Forum Discussion

- Mission Planning Methodology
 -  Current
 -  Future
- Center for the Advancement of Science in Space (CASIS)