



AMSAT-Italia

Proposal for Columbus use

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ARISS Operations

TODAY :

- Unattended
 - Packet BBS
- Scheduled
 - Voice school contact
- Random
 - Voice (as rare DX)
- Communications *with* ISS

TOMORROW :

- Unattended
 - Packet BBS
- Scheduled
 - Voice school contact
- Random
 - Voice (as rare DX)
- Communications *with AND through* ISS

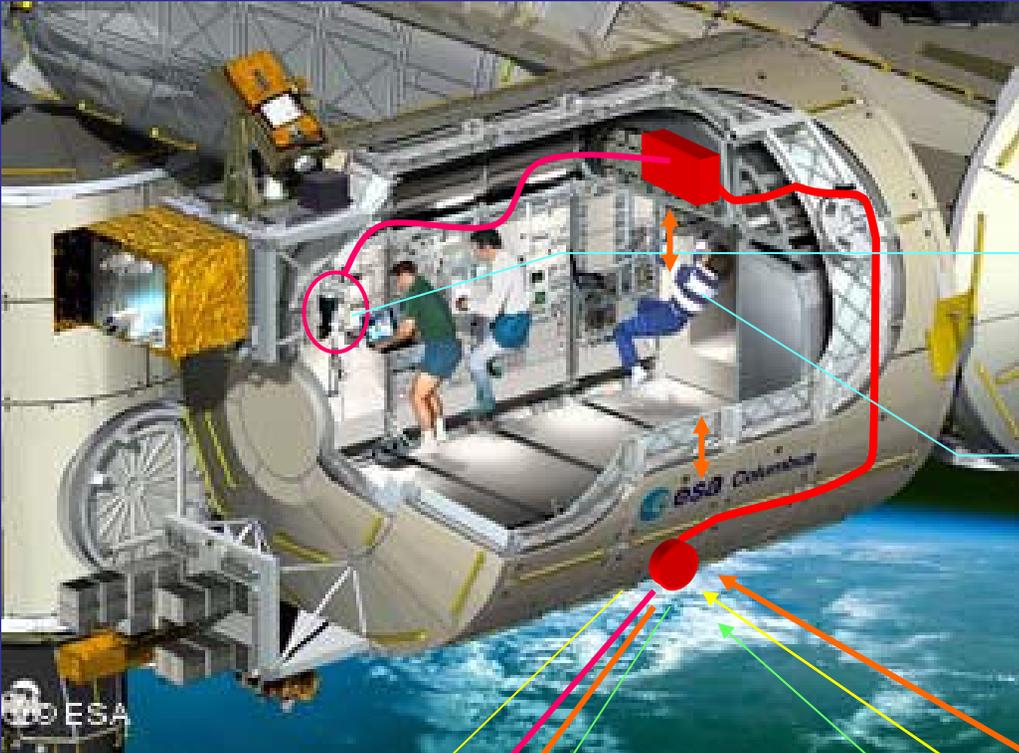
ARISS Operations

- We propose a leap in communications mode to accommodate new environment to be used in next future
- Communications on L and S bands with new antennas and new space inside ISS
- Use of ISS outpost as a useful and easy accessible “spacecraft” not limited to few minutes and few people

Proposed Operations

- New and evolved transponder
 - Uplink on L band
 - Downlink on S band
 - Segmented system
 - Classic bandwidth for linear systems (SSB, CW)
 - New bandwidth for digital systems (hi-speed)
 - Dedicated bandwidth (FM-ATV transmission from CCD camera onboard ISS)
 - Available access to Astronauts (a real two-way communications, as round-table)

Communications WITH but also WITHOUT crew :



CCD camera with FM-ATV transmission

Two-ways comms with Astronauts

Analogue comms

Digital, high-speed comms

Proposed Goals

- Use of ISS as testbed for young students to apply space-comms tech w/o build sats
- Participation of larger number of radio amateurs around the world
- Applying exciting and well-know public return of interest using easy ATV systems
- Use of hi-tech and served outpost for new experiments