Amateur Radio on the International Space Station (ARISS)



ARISS Overview Package

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Amateur Radio on Human Spaceflight Missions

Since 1983, organizations in the U.S. (SAREX), Germany (SAFEX) and Russia (MIREX), have worked with the space agencies to fly amateur radio and to support Educational Outreach on:



Space Shuttle







Mir

ARISS Objectives







Spark Student's InterestCrew Family ContactsIn Science & Technology(Crew Psychological Ops)

Promote Interest In Amateur Radio



Human Spaceflight Awareness





Mir SSTV Dec 12 99 17:29 UTC Rec W8ZCF

Experimentation

Development & Operations on the International Space Station (ISS)

Working with our international partners to develop & operate Amateur Radio on the International Space Station (ARISS)

ARISS Organization

- Nine international partners thus far— Belgium, Canada, France, Germany, Italy, Netherlands, Japan, Russia and United States
- MOU—Formed ARISS to represent the amateur radio community to the ISS Program
- Rules & Bylaws developed with delegates from Europe (4), America (4), Russia (2) and Japan (2)



Planned Capabilities for Initial Station ISS Ham Phase 1



2-way voice

Planned Capabilities for Initial Station ISS Ham Phase 1 (Continued)

Computer-to-Computer Radio Links

Amateur Radio E-mail from Mike Foale after Progress collision with Mir Spektr Module Posted : 06/28/97 17:58 To : ALL From : R0MIR Subject: Mir Status

We have now got the base block, the module Kvant 2 back on line, leaving 2 more modules. Working very hard, lights in our mouths, in the dark, moving batteries about, to enable better charging, with solar arrays. O2 electrolysis soon, in old Kvant. Much interest from control center to do internal eva to reconnect power to lost Spkektr module, to receive its substantial electrical power from its large arrays.

Thanks for all your good wishes. Mike.

CMD(B/H/J/K/KM/L/M/R/S/SR/V/?)>

Planned Capabilities for Initial Station ISS Ham Phase 2





DigiTalker (Voice Repeater) Slow Scan TV (Photos/JPEG Images)

Future Capabilities



Amateur TV (Standard, Spread spectrum, & MPEG)

SPRE Pass Over U.S.



R/T Internet TLM using amateur radio



Express Pallet---External payloads w/ antennas & student experiments

General Contact Operations

- Downlink:
 - Worldwide both voice & packet: 145.80
- Uplink:
 - Packet: 145.99
 - Voice:
 - Region 1 (Europe, Africa) 145.20
 - Region 2 & 3
 - (Americas, Asia,
 - Australia) 144.49

- Callsigns:
 - RS0ISS
 - NA1SS

DIRECT CONTACT INSTALLATION



Telebridge Network



ARISS Information (Including School Group Application)

http://www.rac.ca/ariss

