THE BREWER TROPHY
AVIATION EDUCATION ASSOCIATION

October 9, 2008

AMATEUR RADIO IN SPACE

On Sunday, October 12, Richard Garriott, W5KWQ, is scheduled to begin his journey to the International Space Station (ISS) as he blasts off into space via a Russian Soyuz and dock with the ISS two days later. He is due to return to Earth on Thursday, October 23.
Richard, the sixth private citizen to be accepted by the Russian Federal Space Agency (RKA) for a short-term mission on the ISS, is the son of Owen Garriott, W5LFL.

In 1983, Owen was the very first amateur radio operator to make Amateur radio contacts from space. Richard said he plans to build on his father's legacy by also making Amateur radio contacts from the ISS: He plans to perform several school contacts and downlink SSTV images during his flight, as well as contact the general amateur radio operator community in his free time and perform random scout contacts during the Boy Scout Jamboree on the Air (JOTA).

According to ARRL Amateur Radio on the International Space Station (ARISS) Program Manager Rosalie White, K1STO, excitement is building for this launch. "Richard and Owen have been working as a team to plan how to cram in all of the objectives Richard hopes to achieve in space, including scientific experiments."

Through White, Richard and Owen sent this message for all teacher and student amateur radio operators:

"We are both very pleased and appreciative of the ARISS and ARRL support in making the voice and SSTV amateur radio operator operations more fun, interesting to the public, and valuable for research on Richard's flight this October. One of the most exciting aspects of living and working in space is the chance to look back at the Earth. Owen had one of the first opportunities to do this 35 years ago on Skylab. He also had the first opportunity to talk with the amateur radio operator community from space 25 years ago aboard [NASA shuttle mission] STS-9. Richard now has the opportunity to connect with the amateur radio operator community almost exactly 25 years after his father's shuttle flight and 35 years after Skylab. One of Richard's primary objectives with his flight is to photograph the Earth 35 years after the first orbital laboratory and look for changes on the Earth in the intervening time. While Richard is at the ISS window, he will be operating the amateur SSTV equipment and sending its images down to amateur radio operators around the world. These downlinks can then be sent to an ARISS central repository for delayed and wider use. We further expect to be able to compare many of the images with near simultaneous, handheld, high resolution digital photo images. We are very excited to share this experience with the teacher and student Amateur Radio community, and thank our fellow amateur radio operators for their support of this project."

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According to White, AO-51 will be operated in a special mode to the ISS this weekend in preparation for Richard's Slow Scan Television (SSTV) operations. "Since Richard wants to experiment with the SSTV equipment on the ISS, a test will take place with AO-51 configured with dual repeaters. This will be during October 11 and 12," White said.

"The primary repeater on AO-51 will be configured with an uplink on 1268.700 FM and downlink of 435.300 FM, and will be designated for this period as an SSTV repeater," reported ARISS Team Member Drew Glasbrenner, KO4MA. "Users are encouraged to exchange SSTV images in ROBOT 36 mode, as an opportunity for others to practice receiving SSTV images from space before the ARISS activity."

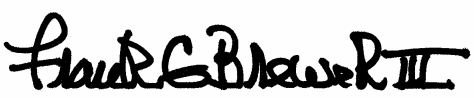
The ARISS Team requests that the images amateur radio operators transmit be related to space and to the ROBOT 36 mode. As always, White said, "good Amateur Radio practice -- including cooperation in sharing the uplink – is crucial to the success of this test mode." Glasbrenner said that there will be a low power voice repeater running concurrently on 145.880 FM uplink and 435.150 FM downlink. Users are asked to use 10 W or less, and omni directional or handheld antennas only.

As Richard gets ready for his voyage, he only had kind words to say about the amateur community: "I am very impressed with the amateur radio operator community and ARISS and how well it puts together such complicated activities! I am very excited about my amateur radio operator radio part -- I hope to perform well."

All of us from the Brewer Trophy Aviation Education Association wish Richard the best success and hope that **your** school will have an opportunity to contact the International Space Station during the upcoming ISS visit.

Over the past years, many school children have had the thrill of not only hearing amateur radio communications from the ISS, but have actually made schedules to have the children talk with the astronauts as the ISS passes within their schools' footprint from space.

Students and teachers can track the exact location and progress of the ISS using the link at http://spaceflight.nasa.gov/realdata/tracking/ .



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