



THE BREWER TROPHY AVIATION EDUCATION ASSOCIATION

December 21, 2008

Dear BTAEA Members:

AMATEUR RADIO and AVIATION EDUCATION (II)

The Amateur Radio on the International Space Station (ARISS) team is currently celebrating the silver anniversary -- 25 years -- of Amateur Radio operations from space. According to ARISS International Chairman Frank Bauer, KA3HDO, the crew on the International Space Station (ISS) has configured the radio to support cross-band repeater operations. They have also supported some SSTV downlinks and participated in a special test of 9600 baud packet radio operations on the simplex frequency of 145.825 MHz. After December 19, Bauer said he expects the ISS ham radio system to be on the 145.825 MHz frequency supporting 1200 baud packet. If PCSAT is configured during the week, he said double hop APRS is possible.

"During the week of December 21-26, we plan to support the cross-band repeater mode with a twist," Bauer said.

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"Our intent is to configure the radio for 145.99 MHz uplink -- including CTCSS tone of 67.0 and 437.80 MHz down. This will be performed in low power mode. We should also note that an extra-vehicular activity (EVA) is planned for that week -- Expedition 18 Commander Mike Fincke, KE5AIT, and Flight Engineer Yury Lonchakov, RA3DT, plan to perform a spacewalk on December 22. As per standard procedure, the ISS ham radio system will be turned off for the EVA."

Bauer said that from December 28-January 3, the cross-band repeater will be reconfigured for what he called "a special experiment. This will be a test of our L-Band uplink capability, which, to date, has not been proven out. Plan for an uplink of 1269.65 MHz and a downlink on the standard frequency of 145.80 MHz, using low power," he said. "Given the substantial cable losses of the L-band system, we hope some 'big guns' are able to penetrate through, keep up with Doppler and make the connection."

A special certificate is being developed for those who communicate with the ISS from November 30, 2008 to January 15, 2009. This certificate will be awarded to those who have had two-way communications with the ISS on voice, packet (APRS) or through the voice repeater.

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Those who hear the ISS from space in any of the ARISS operations modes -- voice, SSTV, school contact, voice repeater or digital - will also be eligible to receive a certificate.

To receive the certificate, Bauer said to note the ARISS mode of operation (such as SSTV, voice or school) on your QSL and whether the contact was one-way (receive only) or two-way. "You should send your self-addressed, stamped envelope to the normal ARISS QSL volunteer distributor in your area of the world," he explained. "On the outside of the QSL envelope, please include the words '25th Anniversary Certificate.' Make sure your envelope is big enough to accept an 8.5 x 11 inch certificate and includes the proper postage."

If you do not know where to send your QSL, check the ARISS Web site to find the one that serves your part of the world.

"We will be sending your certificate to the volunteer distributors in bulk after the event is over," Bauer said. "This saves workload and money."

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So do not expect to see it until 1-2 months after the event closes on January 15." Bauer reminded hams that due to ISS flight requirements related to spacewalks and vehicle activity, the radio onboard the ISS may be off for some portion of this schedule.

School contacts and general QSO opportunities by the crew will also preempt this schedule for short periods of time. "But remember that if you hear these," he said, "you still qualify for a commemorative certificate. Enjoy the ARISS ops on ISS!"⁷³,

Best of the Holiday Season to you all !

Frank G. Brewer, III

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President and CEO