ISS Packet Digipeater on 437.550 MHz

After the failure of the Ericsson VHF HT used with the ARISS packet system in the European Columbus module in October 2016, the UHF twin of the failed radio was put into service. The Ericsson UHF HT is using the ARISS 70cm frequency of 437.550 MHz. With the move to 70cm, this means users of the packet digipeater will have to make adjustments for Doppler on both the uplink and downlink. Even with the change in frequency, the digipeater operates exactly as it did on 145.825 MHz.

For HTs or FM mobile transceivers, and possibly other radios capable of operating on 70cm FM, programming a group of 5 memory channels which compensate for Doppler will allow for 70cm packet operation. Use the following group of memory channels for the ISS packet digipeater on 437.550 MHz:

Channel	Receive (MHz)	Transmit (MHz)	Offset
1	437.560	437.540	-0.02 MHz
2	437.555	437.545	-0.01 MHz
3	437.550	437.550	(no offset, simplex)
4	437.545	437.555	+0.01 MHz
5	437.540	437.560	+0.02 MHz

Memory channels in some radios will accept separate receive and transmit frequencies, while others will accept the receive frequency and the offset size/direction.

Be ready to flip-flop between the first two memories after a minute or so into the pass, and near the end flip-flop between 4 and 5. There could be moments near AOS and LOS - and maybe other points in the middle - where the signal is just in between the two RX frequencies, and your TNC or software won't decode it.

More useful advice for working the ISS packet digipeater is available from K9JKM's document "Add ISS Packet Operation to Your Satellite Operation", available from the AMSAT Station and Operating Hints page at:

http://www.amsat.org/?page_id=2144