SpaceCam on ISS Frequency

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What's the best frequency

- 2-meter mono band will provide the best results world wide.
- Low Doppler (3.3k Max vrs 10k on 70cm)
- Unattended Earth Reception of Images.
- Largest possible TX and RX Audience.
- Lowest cost Earth station (TX and RX)
- Will work with 5k channel step radios.

70cm Issues

- Doppler (+10 and -10k) will prevent unattended operations.

- Increased costs for Earth Stations.

- Fast Doppler changes,

  * 2 minutes before perigee Doppler changes at 2000 Hz per minute, increasing to 7000 Hz per minute just before perigee then reversing.

Simplex or Split

- For Packet and SSTV Mono band operations there is no benefit to running Split frequency.

- Split frequency mono band increases collisions, while Simplex reduces collisions.

- I recommend running SpaceCam on a 2-meter Simplex channel, 145.800 preferred.

Keep it Simple

- Configure the Kenwood D700 for PM1 Voice mode for both Voice and SSTV.

- This will allow the crew to easily switch between School channels and SSTV, without having to push any function keys.

- Just turn the channel knob.

KIS 145.800 Simplex

- The crew will set the correct channel number and activate the PC.

- The crew will be told that they can Operate Voice on the SSTV channel, world wide.

- No geographical restrictions, SSTV and Voice allowed on the same simplex channel.

Conflicts

- The PCSAT2 Navy project was designed to use a 2-meter input and 70cm output.

- Bob Bruninga said that the 2-minute SSTV delay time will allow him enough time to down load his telemetry for the Navy.

- ARISS projects should stay mono band projects until we have a need for 3 or more simultaneous projects.

SSTV Project Duration

- SpaceCam should be viewed as a long term project, replacing the D700 packet mode.

- SSTV will usually run 24/7, 480 Images per day in slide show mode (1 -2 years)

- SSTV can even be left on during school schedules, to receive images from schools.

70cm Packet

- The PCSAT2 project will run for approximately 1 year.

- When the project is over, the Erickson 70cm radio can be used with the PacCom TNC to replace the PCSAT2 functionality.

- PacCom supports Email, Unproto and APRS.