2023 HRC Status – CUC Briefing

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Current Status of the HRC

- Following a set of strict mission planning guidelines designed to ensure the health, safety, and longevity of the HRC, the HRC has been operating since April, 2023
  - The 15V LVPS may not be powered on for more than 15ks at a time
  - There must be at least 30ks between ”power-ON” blocks of HRC time
  - The HRC CEA temperature cannot exceed 10C during the time when the 15V LVPS is on
HRC Status

- SOTMP is working through backlog of HRC observations
  - SOT/FOTMP typically schedule about 30-45ks of HRC time per week
- We have completed > 100 HRC observations since the restart
  - 1 observation was lost and needed to be replanned due to a commanding error that occurred following a resumption of science after a radiation shutdown
- Thermal model, used for weekly planning, has performed within the +/- 2C error but improvements are being pursued
- Small changes in detector analog monitor values have been noted since the swap back to the side-A electronics, but they do not reflect issues with the detector (just differences in A/D conversion of telemetry between A and B side electronics)
  - Some values are used in automated processing, so an update to the calibration database is in the works
HRC Goals for the next year

- Complete work for on board HRC thermal and voltage monitor to enable autonomous safing – FOT lead
- Continue revisions to HRC thermal model
  - Refinements to the thermal model could enable more efficient and less restrictive scheduling of HRC observations in future cycles