FSSC Operations Status
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for the FSSC Operations Team

Overall FSSC Ops Status

- Current team:
  - Jerry Bonnell
  - Robin Corbet
  - Joe Eggen
  - (Elizabeth Ferrara emergency backup!)

Assumption of ISOC Ops Responsibilities

- The FSSC ops team is in the process of training for assuming ISOC Ops responsibilities.
- Currently routine ISOC ops tasks are divided between the 3 FSSC ops personnel and Rob Cameron at ISOC.
  - Weekly ATS (command) generation for LAT.
  - Review of weekly ATS
  - Presentation of status at weekly and monthly meetings.
- Standard, but less frequent procedures:
  - Charge injection calibration
  - hot-strip masking

Status of Assuming ISOC Ops Responsibilities

- Weekly LAT commanding and review now regularly performed by FSSC ~75% of time.
- Weekly reports given by FSSC 75% of time.
- Quarterly reports more complicated and occur less frequently. Most knowledge transferred to FSSC as a group.
- Charge injection calibration and hot-strip masking has been performed by FSSC.
  - There are some issues mainly associated with permissions of some user accounts.
  - Use of group account may resolve these.

Effects of Solar Array Drive Failure

- Constraints on Fermi operations:
  - sufficient power
  - thermal constraints (primarily battery radiator)
  - minimize solar array movement
  - ARRs are now disabled.
  - TOO observations not performed.
  - Effect on sky survey profiles
  - Ops team working with Julie McE., and other elements to select appropriate sky survey modes, and investigate sky coverage.

Current Sky Survey Profiles

- The sky survey profile used depends on the beta angle: angle between orbital plane and Sun.
- For low beta angles (< 25 degrees) perform "one-sided rocking"
  - Rock angle matches sign of beta angle (e.g. +50 rock for positive beta angle).
- For beta angle > 25, used "modified sine profile".
  - During spacecraft day, approximate sine wave with amplitude and sign dependent on beta angle.
  - At orbit night, use 50 degree rock angle with opposite sign.

Future Effects on Sky Survey

- As engineers continue to evaluate constraints, changes to the profile may be required.
- e.g. if other drive were to fail, we'd wish to be able to continue observations, even if more restricted observing.
- The new observing profiles are more complicated than previous operations.
  - We already have scripts to provide some checks on the timelines (e.g. ensure ARRs remain disabled), check beta angles.
  - Expect to add more checks to the scripts.