Discussion on space weather impacts database (Lead: Joe Minow)

- --Workshop participants agreed that a database of space environment effects on space systems would be useful
- --Avoiding the word "anomaly" and instead use something like "events" or "space weather impact" will possible help avoid the negative connotation of
- --Lists of space environment impacts on satellites already exist and can form a starting point (e.g., Spitzer, ISS, Chandra)
- --CCMC DONKI tools provide a good framework to start work on the database

R. Walker (NSF) impressions:

- CCMC is doing a great deal of very good work.

- I am impressed, but

  … There are many tasks and limited resources. Prioritization is important and the community should be involved in that.

- I think there is a need for a reconstituted steering committee.
- The issue of adequate funding for things like code development deeply concerns me and I think the others at NSF
- I really liked the progress that the modelers showed.

Applications, Prototyping, Services, Metrics and Validation (T. Gombosi)

- Mike Horner: AFWA
- Joseph Hunt: Spitzer
- Rebecca Besser: CARA
- Karen Shelton-Mur: FAA
- Susanne Vennerstroem: DTU
- John Allen: NASA HEOMD
- Dan Fry: SRAG
- Henry Garrett: Surface charging
- Joe Minow: Internal charging
- Eftyhia Zesta: Satellite drag

- "Do more with less" – where is the limit?
- There is a lot of fragmented space weather impact information available at the various program levels.
- We need an integrated space weather impact data base (at least from various NASA programs)
- We need better first-principles based models for spacecraft charging and energetic particle fluxes
  - keV electrons
  - >10 MeV ions
  - >30 MeV ions
- We need better satellite drag models
  - Local density
  - Move away from "orbital averages"
  - Drag coefficients
  - Free molecular techniques?