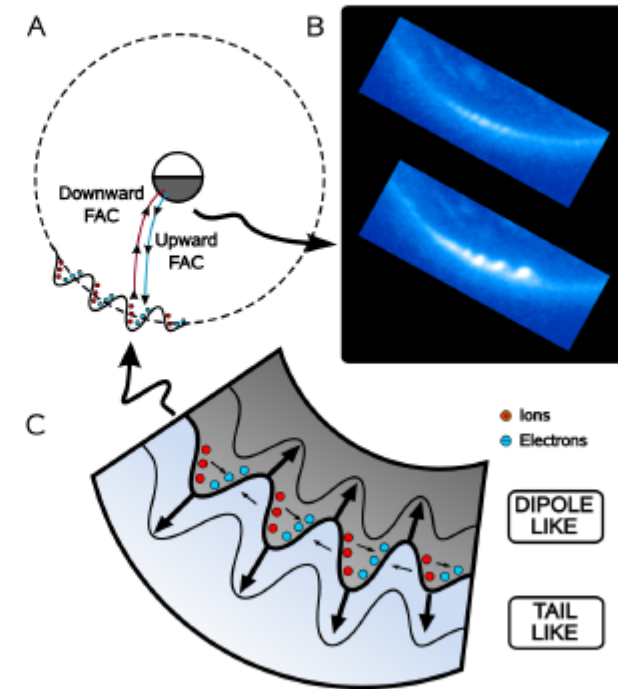
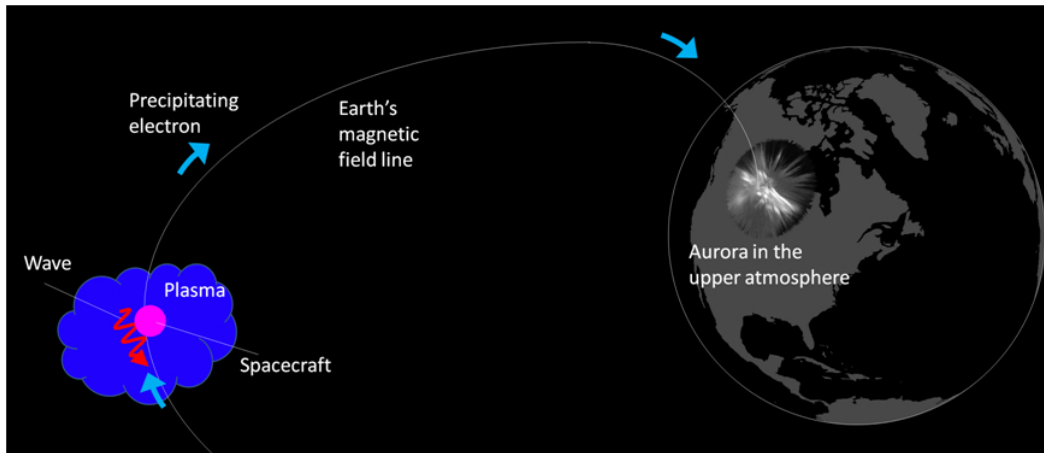


FG: Scientific Mapping and Techniques (MacDonald, Millan, Donovan)



Courtesy Toshi Nishimura (above), Mike Henderson (right).

Deliverables

From our FG Proposal

The deliverables will be

1. A review of existing mapping techniques.
2. New metrics for assessing the validity of different techniques.
3. Quantifiable improvements of existing techniques.
4. Demonstration of how those improvements will benefit GGCM, and the GEM program (e.g., other focus groups) in general.

We anticipate that deliverable 1 will be met by a review paper prepared by the focus group leaders, and that deliverables 2 and 3 will be met through publications by community members who will contribute to the focus group activities. The demonstration of how improved mapping benefits GEM and GGCM will be achieved through one or several community challenges.

FG: Scientific Mapping and Techniques (MacDonald, Millan, Donovan)

Mapping in the late growth phase: *Shin Ohtani, Toshi Nishimura*: Onset arc location relative to the Birkeland Currents; *Jun Liang*: Magnetospheric "root" of the onset arc; *Larry Lyons*: Implications of the very thin auroral oval in the late growth phase; *Jian Yiang*: Growth phase magnetic field model.

Techniques: *Natalia Ganushkina*: Interhemispheric conjugacy; *Chia-Lin Huang*: comparison of models to GOES; *Mike Henderson*: Event-Based Modeling; *Kyungguk Min*: New L* calculation; *Jun Liang*, In-situ B field-line curvature; *Gang Lu*: B field modeling constrained by GOES and THEMIS; *Rob Redmon*, DMSP auroral boundaries; *Joachim Birn*: mapping tail dynamics; *Bob Strangeway*: You young guys are often careless (☺).

Mapping Challenge: *Robyn Millan* spoke about mapping for RBSP. Discussion about what would constitute a challenge, how to work with CCMC, and what specifically we should do (e.g., challenges for empirical & physics-based models organized around times we “know” the mapping).

We agreed: **1)** Surveyed techniques and will collate (review paper); **2)** Second joint session with substorm FG; **3)** call for lists of known mappings, events for which event-based models have been set up, events of interest for a challenge, etc.; **4)** We will choose two or so challenges at the mini-workshop; **5)** We don't know how to put error bars on mapping; **6)** We encourage proposals under this theme.

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