



Birkeland Current Boundary Flows



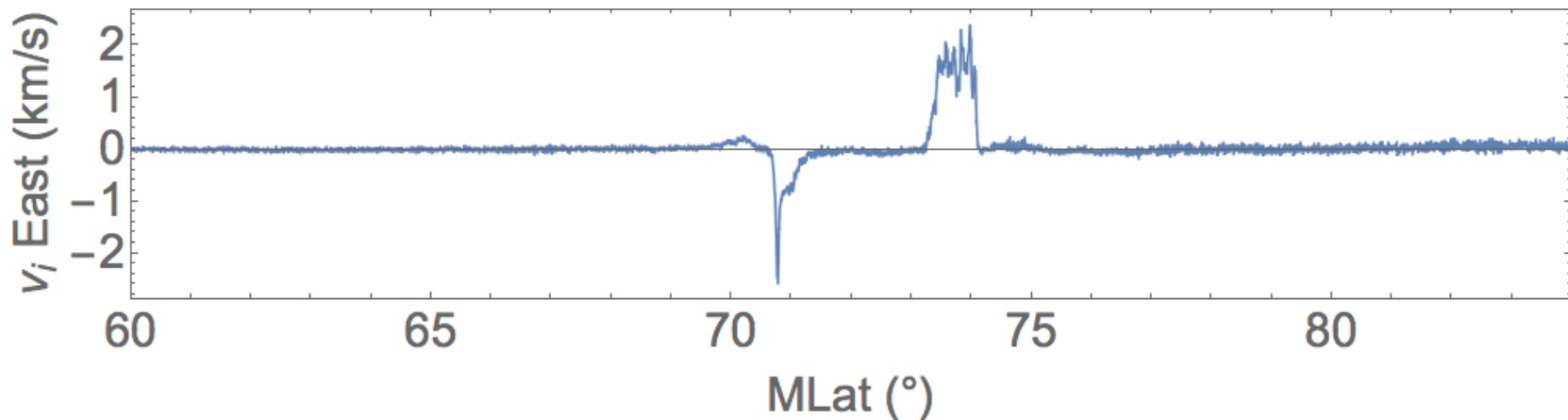
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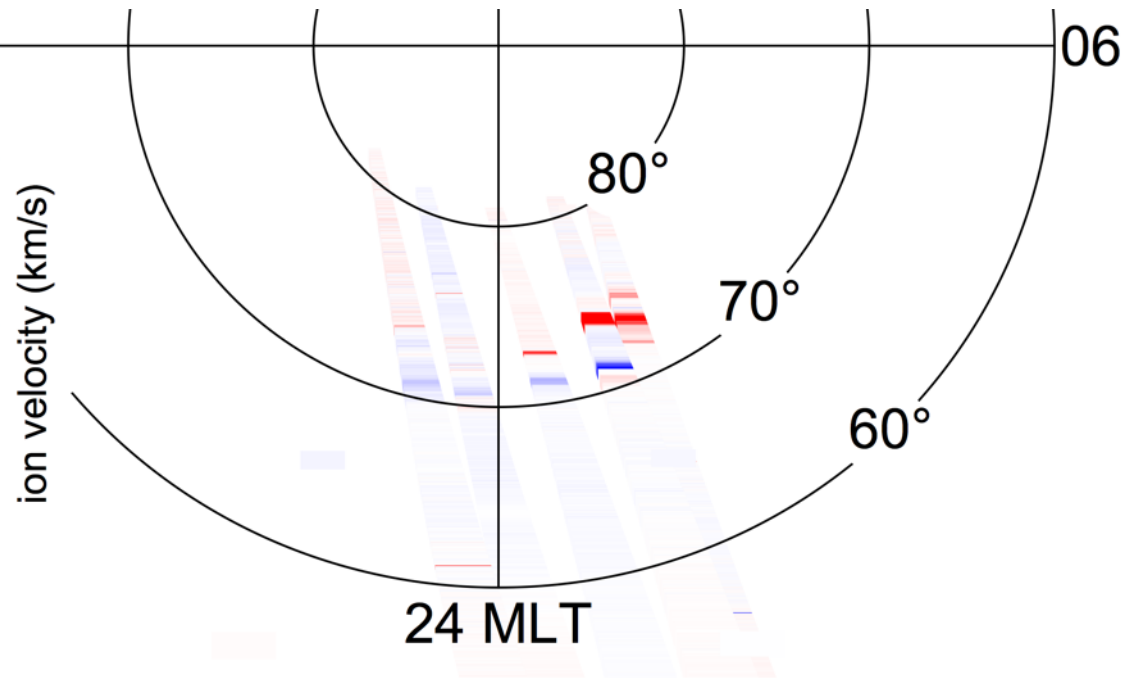


- Fast flows (>1 km/s)
- Latitudinally narrow (<100 km)
- Common (153/309 orbits)
- Isolated
- Near local midnight
- High latitude
- Winter hemisphere
- Geomagnetically quiet

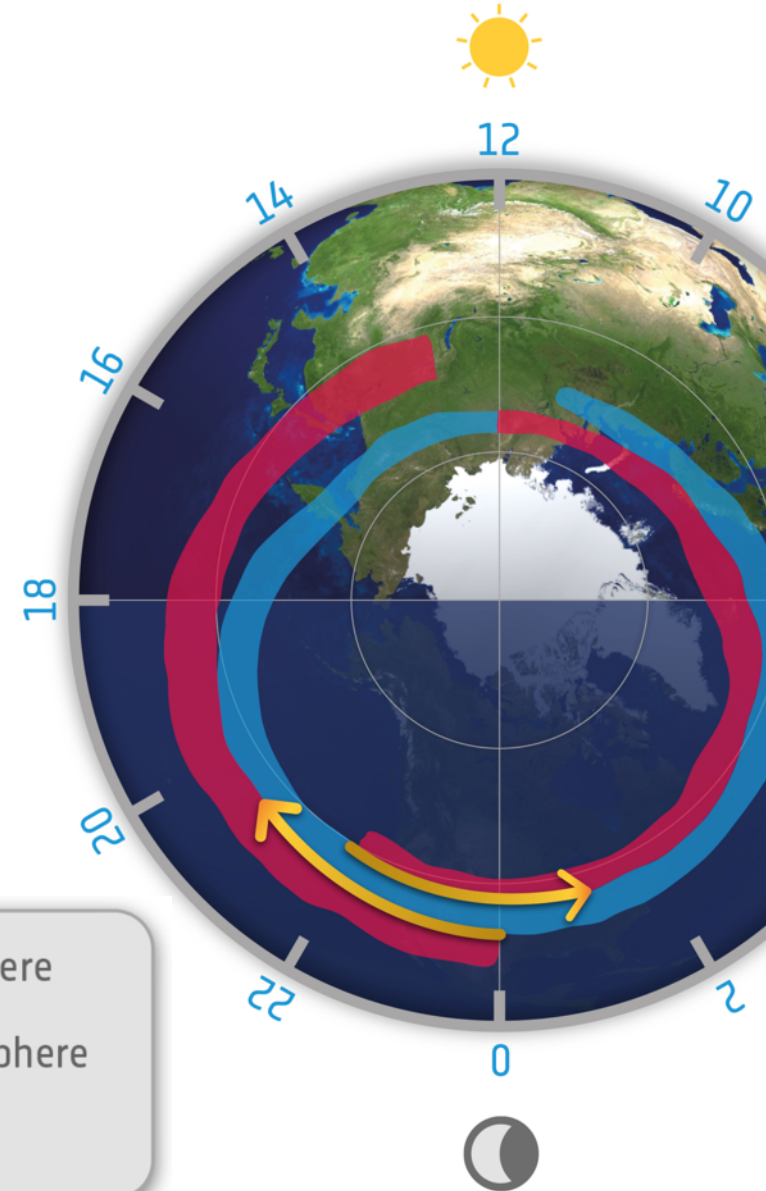
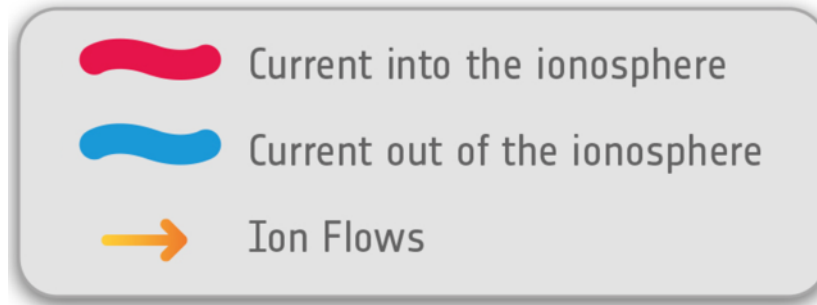
~~Substorm related?~~

~~Subauroral ion drift?~~

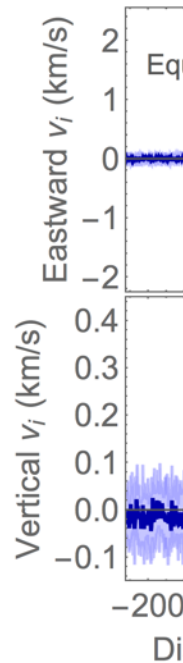
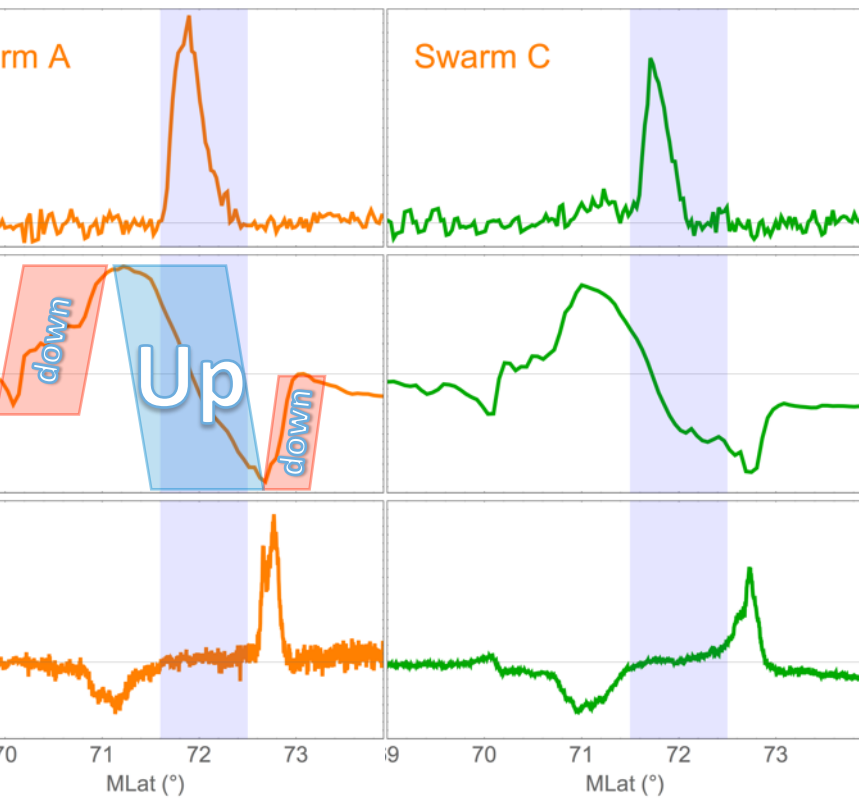
Larger Perspective



Consecutive orbits
December 2013

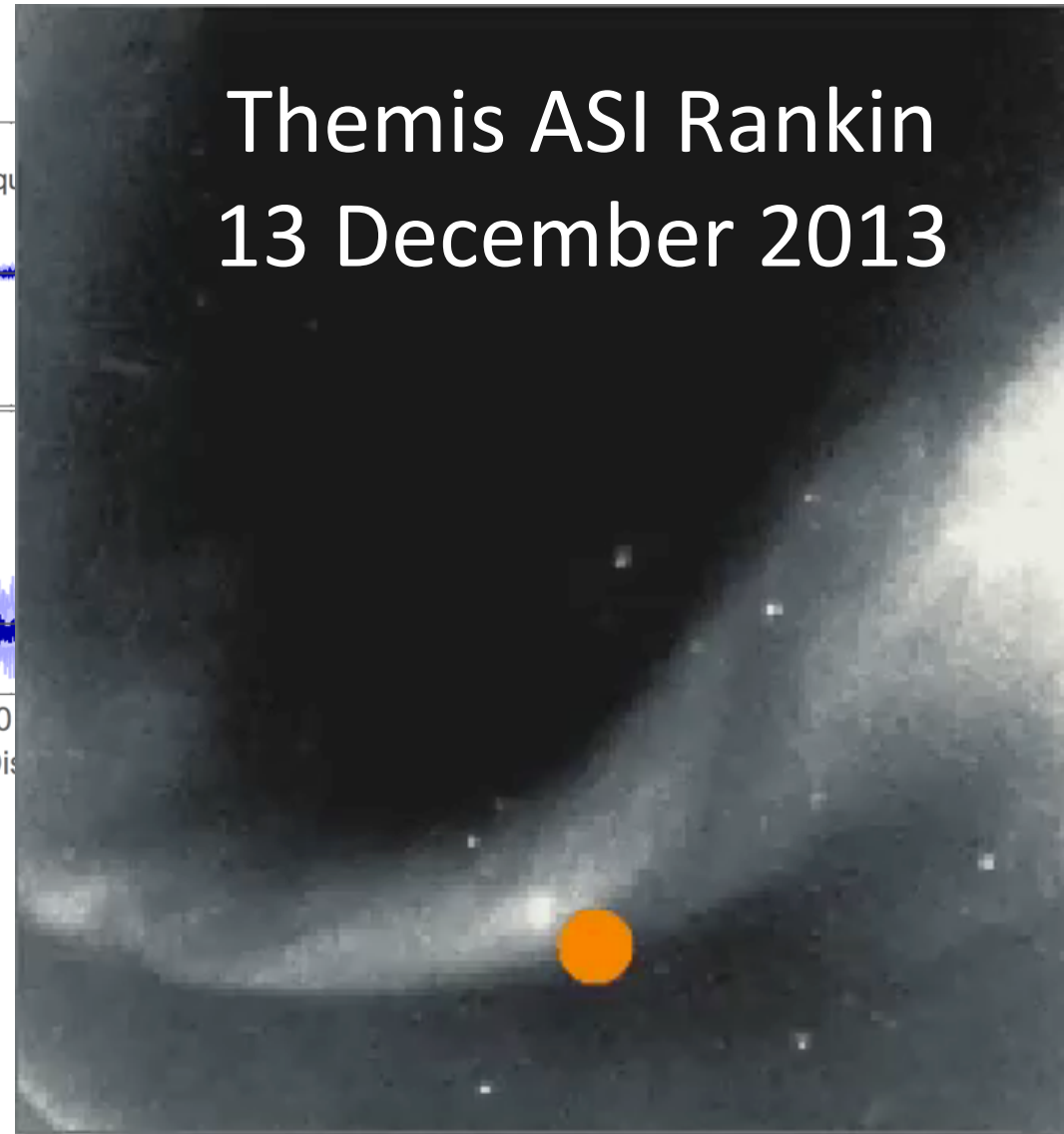


Superposed epoch analysis

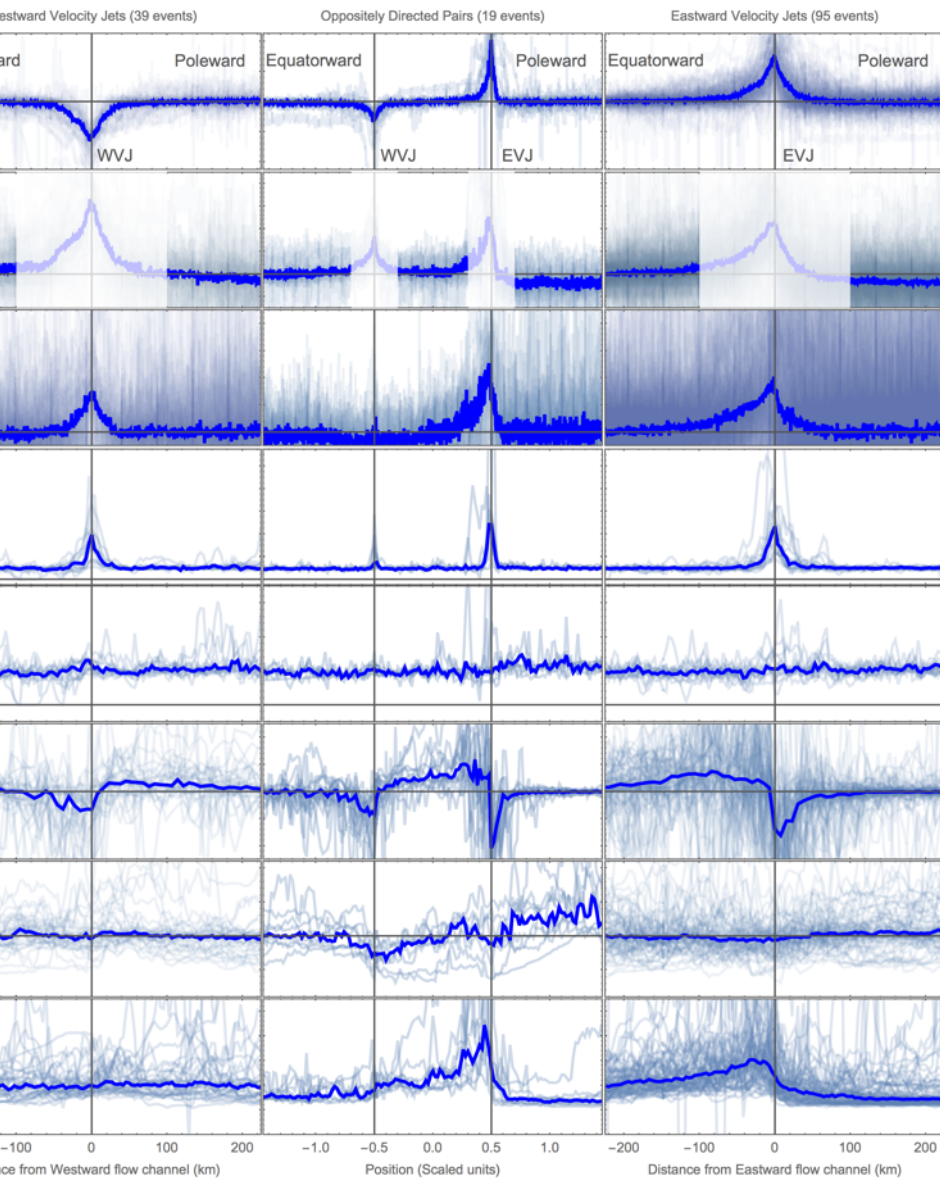


Themis ASI Rankin
13 December 2013

ward current sheet associated
n:
Precipitating electrons
Hot electrons



Summary



- Fast flows
- Quiet conditions
- Winter hemisphere
- Harang Region
- Common

The "ground state" of large scale auroral current closure consistently involves fast flow channels

Thank you for your time.

For more information, please read "Birkeland Current Boundary Flows", *JGR* 2015.
Alternatively, come talk to me.