Subject: 2004/107 DS TC1 event
From: David Winningham <dwinningham@swri.edu>
Date: Tue, 06 Jun 2006 14:12:51 -0500
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Content-Type: multipart/mixed; boundary="------------000406070506080003040405"
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Ok we have made a temporary fix to ur database manager so I can plot DS test data.
Ondrej I have focused on the time period you said definitely has chorus. Attached is a spectrogram of 0710 to 0720 where you note chorus. I have adjusted the color bar to highlight features. Things are much better and interesting than I thought. If you look at the top right panel for 0 deg PA there is spatial or temporal dispersion. I suspect
it may be spatial as it is backwards to what one would expect for temporal. If you follow the
mid rnge red dispersion signature in the PA panels it flattens and goes up in energy. This is consistent with time of flight dispersion along B ie flight from a distant source.
Higher PA requires a higher total velocity to get the same parallel velocity to arrive at
this point in space. The aforementioned spatial feature could be due to the 3d structure of the distant source and how far things have to "fly"

If what I say is true then we are seing in Peace in this mid energy feature heating and/or acceleration for electrons at a remote site with subsequent velocity dispersion features ate a measurement point.

I also attach a contour. Th eVx axis is parallel to B. At the highest energies and probably
on into Rapid energies above 30 keV one see a population with a minor loss cone. Inside the "funnel" one sees the mid range dispersion population. I have blanked out the low energy photoelectron population. One sees counterstreaming beams at 0 and 180 PA and a "squashed" feature at other PA. This is the velocity dispersion aspect requiring a higher total velocity Ie energy at larger PA to get the same parallel velocity. The parallel
beams change over time and can be absent and also unidirectional. The squashed part stays. OK more later.