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## Narrowband VLF observations as validation of plasmaspheric model

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### Abstract content <br> &nbsp; (Max 300 words)

PLASMON is a European Union FP7 project which will use observations of whistlers and field line resonances to construct a data assimilative model of the plasmasphere. This model will be validated by comparison with electron precipitation data derived from narrowband VLF observations of subionospheric propagation from the AARDDVARK network. A VLF receiver on Marion Island, located at 46.9 S 37.1 E ( $L = 2.60$ ), is able to observe the powerful NWC transmitter in Australia over a  $1.4 < L < 3.0$  path which passes exclusively over the ocean. The signal is thus very strong and exhibits an excellent signal-to-noise ratio. Data from the UltraMSK narrowband VLF receiver on Marion Island are used to examine evidence of particle precipitation along this path, thereby inferring the rate at which electrons are scattered into the bounce loss cone. This path covers a small range of L-values so that there is little ambiguity in the source of any perturbations. Perturbations detected on the path during geomagnetic storms should predominantly be responses to energetic electron precipitation processes occurring inside the plasmasphere. Comparisons will be made to preliminary plasmaspheric results from the PLASMON project.

### Apply to be<br> consider for a student <br> &nbsp; award (Yes / No)?

No

### Would you like to <br> submit a short paper <br> for the Conference <br> Proceedings (Yes / No)?

Yes

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