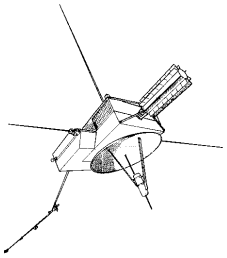
Ulysses Radio Observations of Jupiter's Space Weather



- **Beginning in February 1999, a well-developed interaction region formed in the solar wind beyond 1 AU; large, cyclic variations in solar wind velocity (not shown) and density were observed by the Ulysses spacecraft. The Ulysses radio investigation also observed the response of the Jovian magnetosphere to the interaction region, as subsequent compression and expansion allowed the escape of trapped radio emission known as Jovian nonthermal continuum. The Ulysses-Jupiter separation was nearly 10 AU, a very large distance for the detection of this radio emission. The Ulysses observations provide useful diagnostics of changing Jovian "space weather" for correlation with observations by Galileo (inside the Jovian magnetosphere) and by Earth-based observatories.**

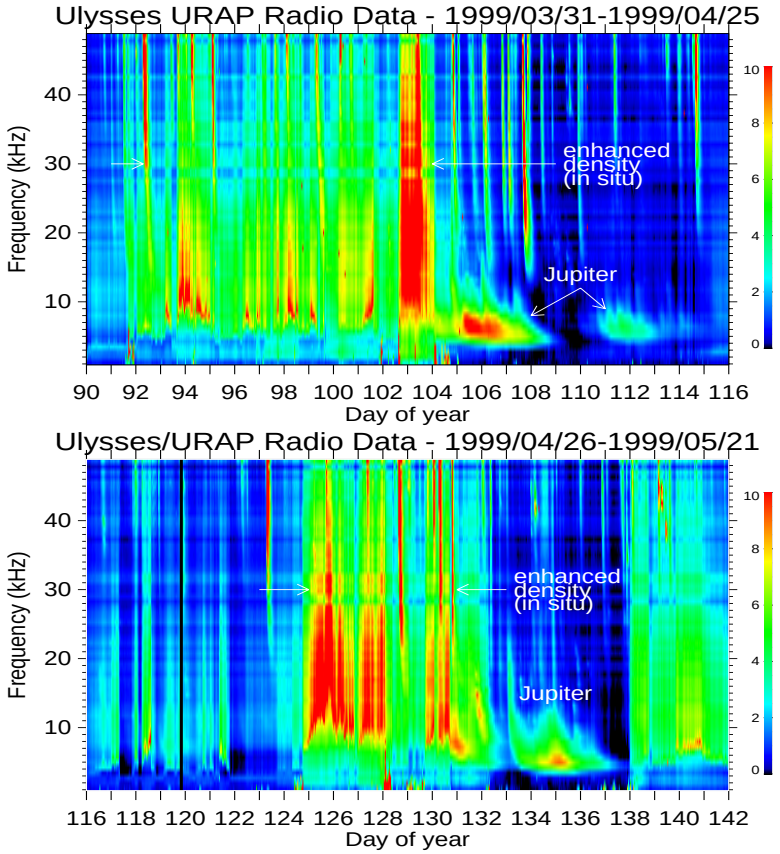


Figure caption: Two 26-day intervals of Ulysses radio spectrograms showing in situ density enhancements and associated radio emission escaping from the Jovian magnetosphere. (Color scale indicates relative intensity.)

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