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A Polar satellite study of the role of chorus in electron acceleration in the outer radiation belt

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The role of whistler mode chorus emissions in accelerating electrons in the outer radiation belt is investigated. Chorus plasma wave emissions observed by the plasma wave instrument on board Polar are correlated with energetic electrons 0.8 MeV < E< 6.4 MeV observed by the Polar CEPPAD experiment in the outer radiation belt. The data is also correlated with magnetic local time, invariant latitude, and interplanetary magnetic field activity indices. The paper represents a progress report of the analysis to date.