

RE-EXAMINATION OF THE OCTOBER 20, 1989 ESP EVENT

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The energetic storm particle (ESP) event of October 20, 1989 has been repeatedly used as an example of high-energy (>500 MeV) proton acceleration at the arrival of CME-driven shocks at the earth. In this paper we re-examine high time resolution solar wind, magnetic field and energetic particle data from the IMP-8 spacecraft. We show that the population of particles observed around the shock passage is not a locally shock-accelerated population but rather a population of particles convected by the complex plasma structures formed in front of the shock.