

## **BIDIRECTIONAL COSMIC RAY AND $\sim 1$ MEV ION FLOWS, AND THEIR ASSOCIATION WITH EJECTA.**

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Recently, using observations in 1982, we demonstrated that bi-directional cosmic ray flows observed by the world-wide neutron monitor network are well-correlated with bi-directional flows of  $\sim 1$  MeV ions observed by near-Earth spacecraft. We also noted that these unusual flows occurred in association with ejecta, the interplanetary material associated with coronal mass ejections at the Sun. We discuss recent episodes of bi-directional flows of  $\sim 1$  MeV ions observed by the IMP 8 spacecraft and cosmic rays, and examine the associated solar wind structures. We discuss the implications of the energetic particle flows for the structure of the magnetic fields in which they occur.