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Solar-Heliospheric-Interstellar Cosmic Ray Tour with the NASA Virtual Energetic Particle Observatory and the Space Physics Data Facility JOHN F. COOPER, NASA Goddard Space Flight Center, NATALIA E. PAPITASHVILI, RITA C. JOHNSON, Adnet/NASA Goddard Space Flight Center, NAND LAL, ROBERT E. MCGUIRE, NASA Goddard Space Flight Center — NASA now has a large collection of solar, heliospheric, and local interstellar (Voyager 1) cosmic ray particle data sets that can be accessed through the data system services of the NASA Virtual Energetic Particle Observatory (VEPO) in collaboration with the NASA Space Physics Data Facility (SPDF), respectively led by the first and last authors. The VEPO services were developed to enhance the long-existing OMNIWeb solar wind and energetic particle services of SPDF for on-line browse, correlative, and statistical analysis of NASA and ESA mission fields, plasma, and energetic particle data. In this presentation we take of tour through VEPO and SPDF of SEP reservoir events, the outer heliosphere earlier surveyed by the Pioneer, Voyager, and Ulysses spacecraft and now being probed by New Horizons, and the heliosheath-heliopause-interstellar regions now being explored by the Voyagers and IBEX. Implications of the latter measurements are also considered for the flux spectra of low to high energy cosmic rays in interstellar space.

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