This Grant supplemented our work on data analysis from the Wind spacecraft which was one of the ISTP fleet of spacecraft. It was targeted at observations related to the time of solar maximum in 2000. It was to cover the time period January 15, 1999 to January 14, 2001, but the period was modified so that it expired August, 2000 due to funding changes at Goddard Space Flight Center.

The work we proposed to do under this grant included comparison of solar wind parameters obtained from different spacecraft in order to establish correlation lengths appropriate to the solar wind and also to compare parameters to explore solar cycle effects.

The work supported in part by this grant included the following scientific studies:

- Correlation studies between ISEE 1, ISEE 3, IMP 8 and Wind were carried out by Jurac and Richardson:


- Comparisons between Wind and SoHo by Coplan, Ogilvie, and Lazarus studied the orientations of shock normals and found that their normals were between the Sun-Earth line and the direction of the magnetic field:


- The establishment of an unexpected, but very clear dependence of the He/H ratio on both solar wind speed and the time in the solar cycle; that work was reported at two meetings and was published.


- Reports at the October, 2000 ISTP meeting at UCLA of observations 1) of Sunward-flowing protons after the passage of interplanetary shocks, and 2) measurements of proton anisotropies. The first topic is being pursued with support from another grant as is the second. Some results from the second study have been presented at meetings and are in press: