

## Interplanetary shock on December 16, 2012

According to the CELIAS/MTOF Proton Monitor on the SOHO Spacecraft, on Dec 16, 2012 there was an interplanetary forward shock at 16:51 UT. The signal of this shock there is also in the ACE spacecraft, as is shown in the first three figures, ACE MAG (Bt component) and ACE SWEAPAM (speed and temperature of solar wind). The bottom figure is the signal as observed in the Tupa vertical telescope (as a fall in the counting rate). The signal on Tupa was delayed in 24 minutes relative to the ACE signal.

