



Figure 1

Orbits of Ulysses and SOHO/Earth. SOHO orbits the Sun with the Earth so no distinction is made between the two. Ulysses' orbit is inclined to the heliographic equator by  $80^\circ$ , has an aphelion of 5.4 AU, a perihelion of 1.34 AU, and is essentially stationary with respect to the Sun. Since it takes the Earth and SOHO 1 year to circumnavigate the Sun, the included angle between Ulysses and SOHO, as measured with respect to the Sun, is generally  $90^\circ$  twice a year. The locations where this occurs in the SOHO orbit are marked here with triangles and these times are when Ulysses and SOHO are in quadrature. The May 1997 quadrature geometry is indicated with the red lines/triangle and the December 1998 quadrature geometry is indicated with the blue lines/triangle. In May 1997 SOHO was on the near side of the Sun, at the upward pointing red triangle, observing  $10^\circ$  north of the equator off the east limb. Ulysses was at 5.1 AU,  $10^\circ$  north of the equator on the east limb. In December 1998 SOHO was on the far side of the Sun, at the downward pointing blue triangle, observing  $17^\circ$  south of the equator off the west limb. Ulysses was at 5.4 AU,  $17^\circ$  south of the equator on the west limb. (Suess et al., *JGR*, **105**(A11), 25033-25051, 2000)