

As the solar cycle is at minimum and there is just nothing to report, other than the monthly records, I thought it might be of interest to look back at some of the more unusual and interesting topics that have occurred over the past decade. So lets call it;

The Bigger Picture

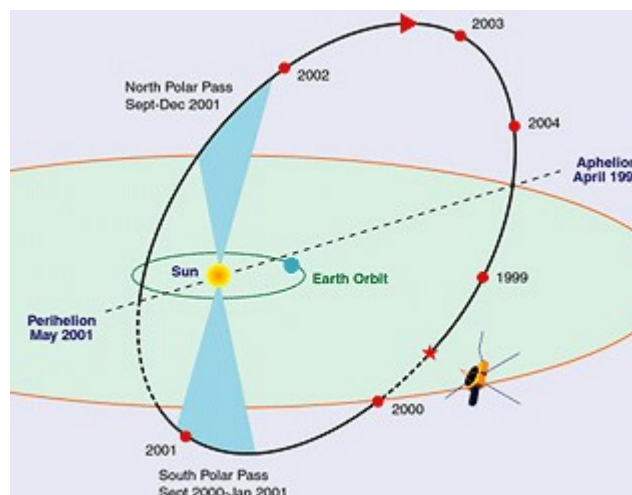
There are many satellites orbiting the earth that are there for the various studies of the sun, ACE, SOHO, TRACE, YOHKOH, GOES 8 - 12, to name just a few, but this satellite is quite unique.

Launched by the space shuttle Discovery from launch pad 39B at Cape Canaveral on the 6th October 1990

Ulysses

Unlike every satellite that has been launched into an orbit about the solar ecliptic, Ulysses, with the help of Jupiter, is circling the sun in a polar orbit, inclined at 80.2 degrees.

The scientific studies of the sun, over the past sixteen years have been most successful, and in some fields, have confirmed, what up till then had been theories and opinions based on computer models, to be correct. Of course, some surprises along the way as well.



The figure above, from a paper by Dr Tony Phillips, gives Ulysses' travel over the past four years. From September 2000 to December 2002 the satellite covered both poles at the time of maximum activity in Solar Cycle 23 and is expected to be in a position to observe the sun's poles again at the time of minimum activity in cycle 24 in 2006-2007. There were concerns at one time as to the life expectancy of Ulysses but NASA have until 2008 to complete their studies when Ulysses' services will be reviewed again.

The results of the various investigations conducted by solar physicists, since the launch of Ulysses, can be found on numerous websites, three of which I've entered below.

Enjoy your reading
Alan Buck

“The Sun Does a Flip” at http://science.nasa.gov/headlines/y2001/ast15feb_1.htm

“A Star with two North Poles” http://science.nasa.gov/headlines/y2003/22apr_currentsheet.htm

“The Sun's Fury in Three Dimensions” <http://agu.org/journals/sw/swa/free/newarticle/print.php?id>

“Ulysses” at http://www.esa.int/esaSC/120395_index_0_m.html