

Coronal holes and high-speed solar wind during solar minimum

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There are the continuous long-term observations of coronal holes by the SXT (Soft X-ray Telescope) on board the Yohkoh satellite (1991-2000) and the EIT (Extreme ultraviolet Imaging Telescope) on board the SOHO (1995-present) spacecraft. Adding to these observations, the ACE spacecraft (1995-present) makes continuous in-situ solar wind observations. Using these data sets, we made an analysis of the relationship between coronal hole and high-speed solar wind during the solar minimums of cycles 22 and 23. We found that high-speed solar winds were often observed without a clear signature of coronal holes during the solar minimum. The magnetic structures of the Sun associated with these high speed-solar winds were analyzed using the source surface model.