

## **The Fast Solar Wind and Polar Plumes**

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Polar plumes appear to be associated with magnetic field concentrations ('rosettes') in the supergranular network, which is the main source of the high speed solar wind. In the solar corona, where the field is strong, the plumes appear to follow magnetic field lines which lead into interplanetary space. Accordingly, plasma that escapes from plumes must eventually be part of the high speed wind, which, however, does not seem to have any prominent features that might be associated with plumes at large distances from the Sun. It is suggested that the plume plasma, which is denser and perhaps cooler than the surrounding plasma, is accelerated up to high speeds by externally generated Alfvén waves which refract into the plumes, become trapped and accelerate the plasma up to the speed of the surrounding solar wind.