



Validation of solar wind high-speed stream predictions

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Solar wind high-speed streams emanating from coronal holes are frequently impinging on the Earth's magnetosphere causing recurrent, medium-level geomagnetic storm activity. As major contributors to space weather disturbances at times of low solar activity, prediction models of solar wind high-speed streams are becoming highly desirable. We present a verification analysis of two operational solar wind prediction models (empirical model, Wang-Sheeley-Argé like model) by comparing the model runs for the period 2011 to 2014 with in-situ plasma measurements from the ACE spacecraft located at 1 AU. We find that both prediction models achieve a similar accuracy but demonstrate the tendency to under-predict and over-predict events of solar wind high-speed streams, respectively. General advantages and disadvantages of both models are diagnosed and outlined.