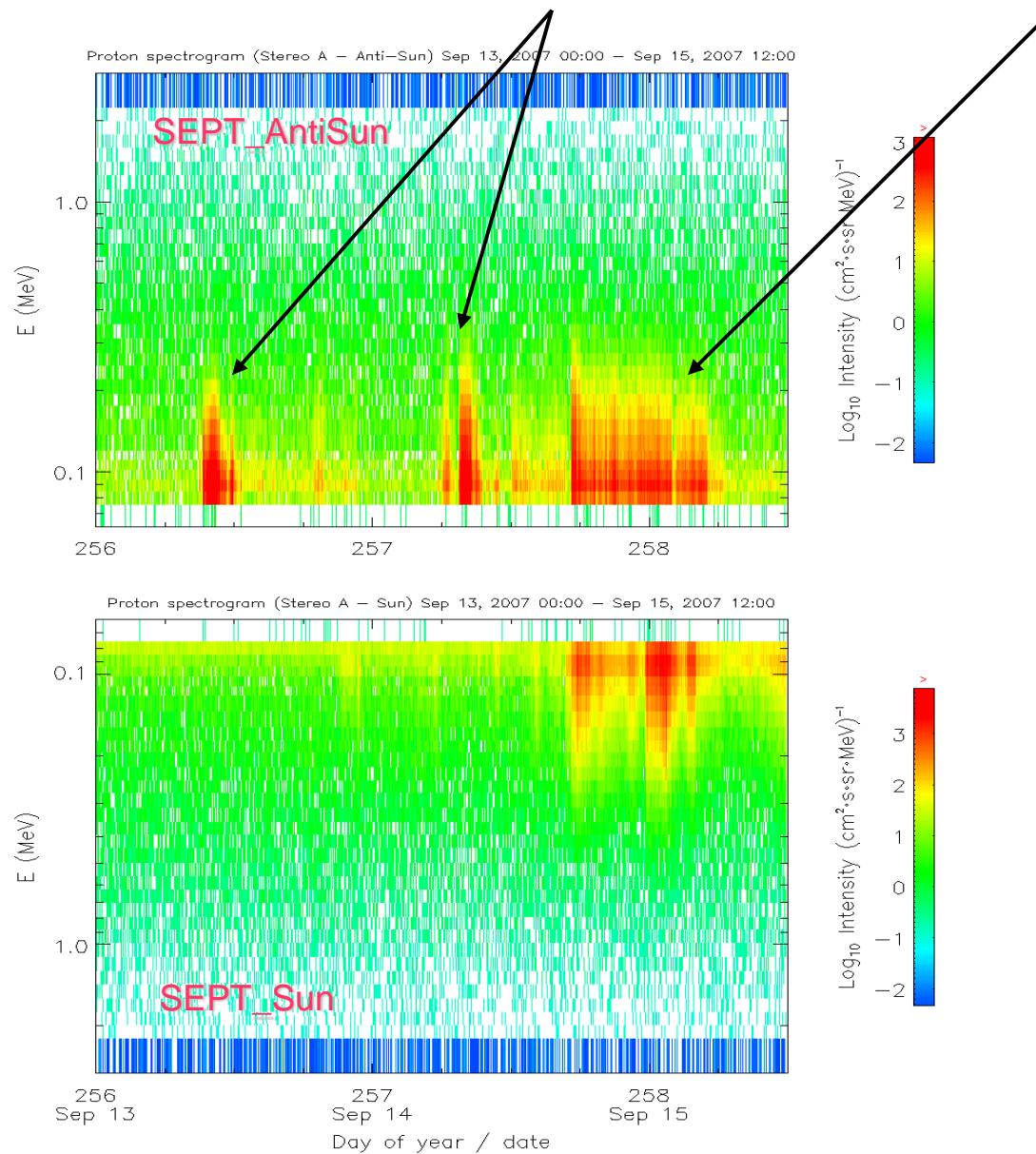


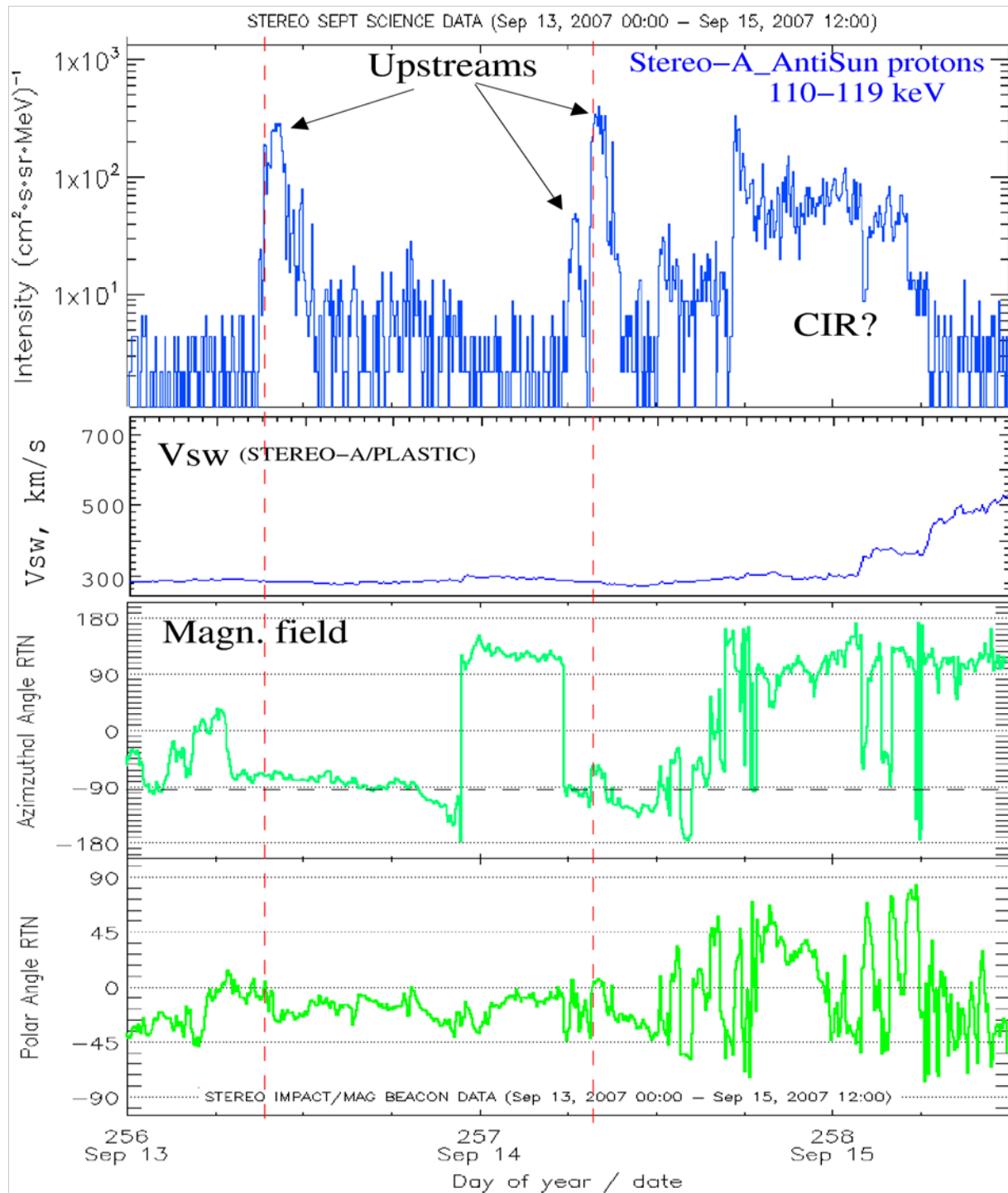
# Upstream events at a record distance of 0.3 AU from the bow-shock

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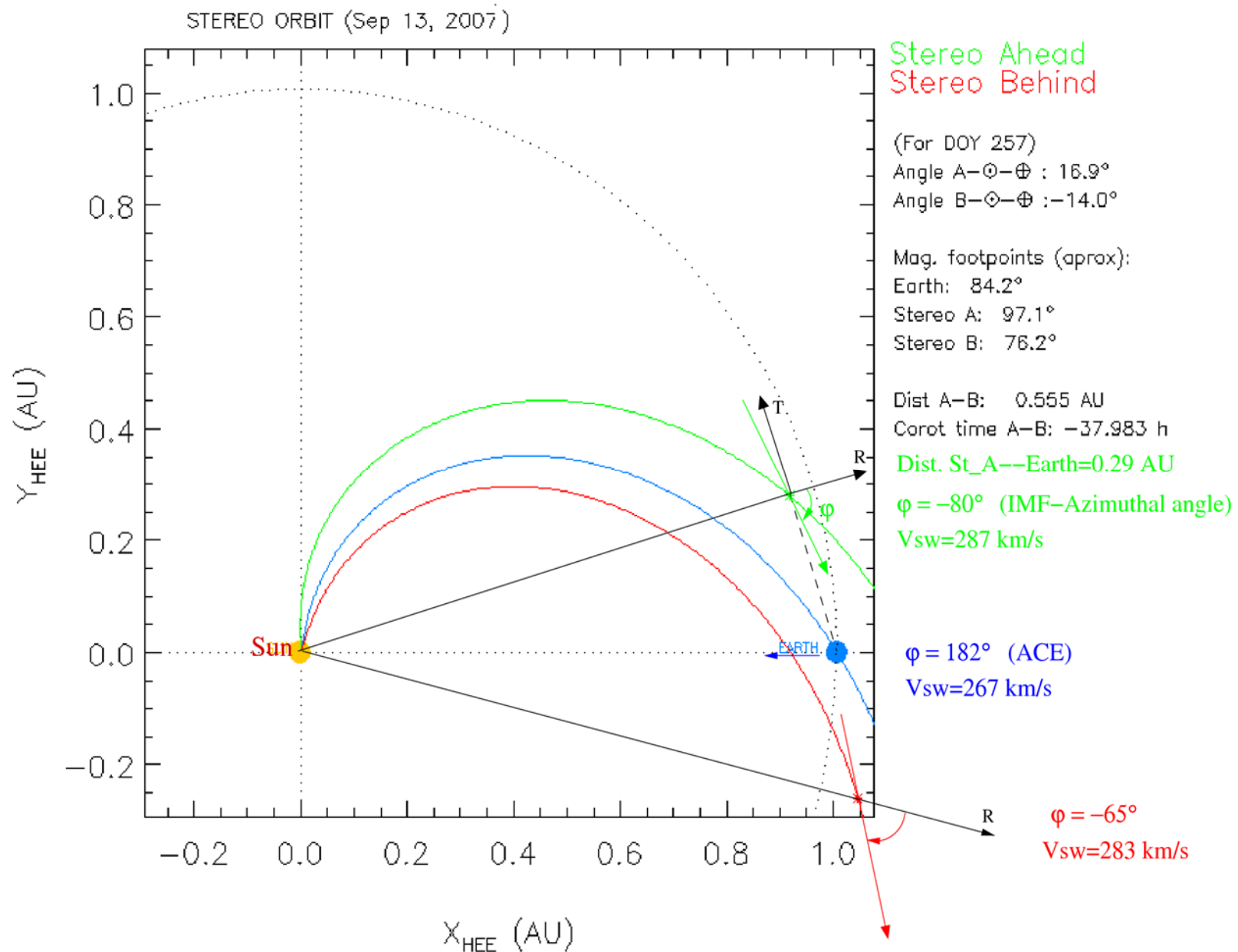
SEPT onboard **STEREO-A** detected strong upstream proton events at a distance of 0.29 AU from Earth. The events were observed during slow solar wind (280 km/s) and during weak geomagnetic activity ( $K_p < 1$ ) on 13 and 14 September 2007.

# Dynamic spectrum of Upstream Events and “small” CIR

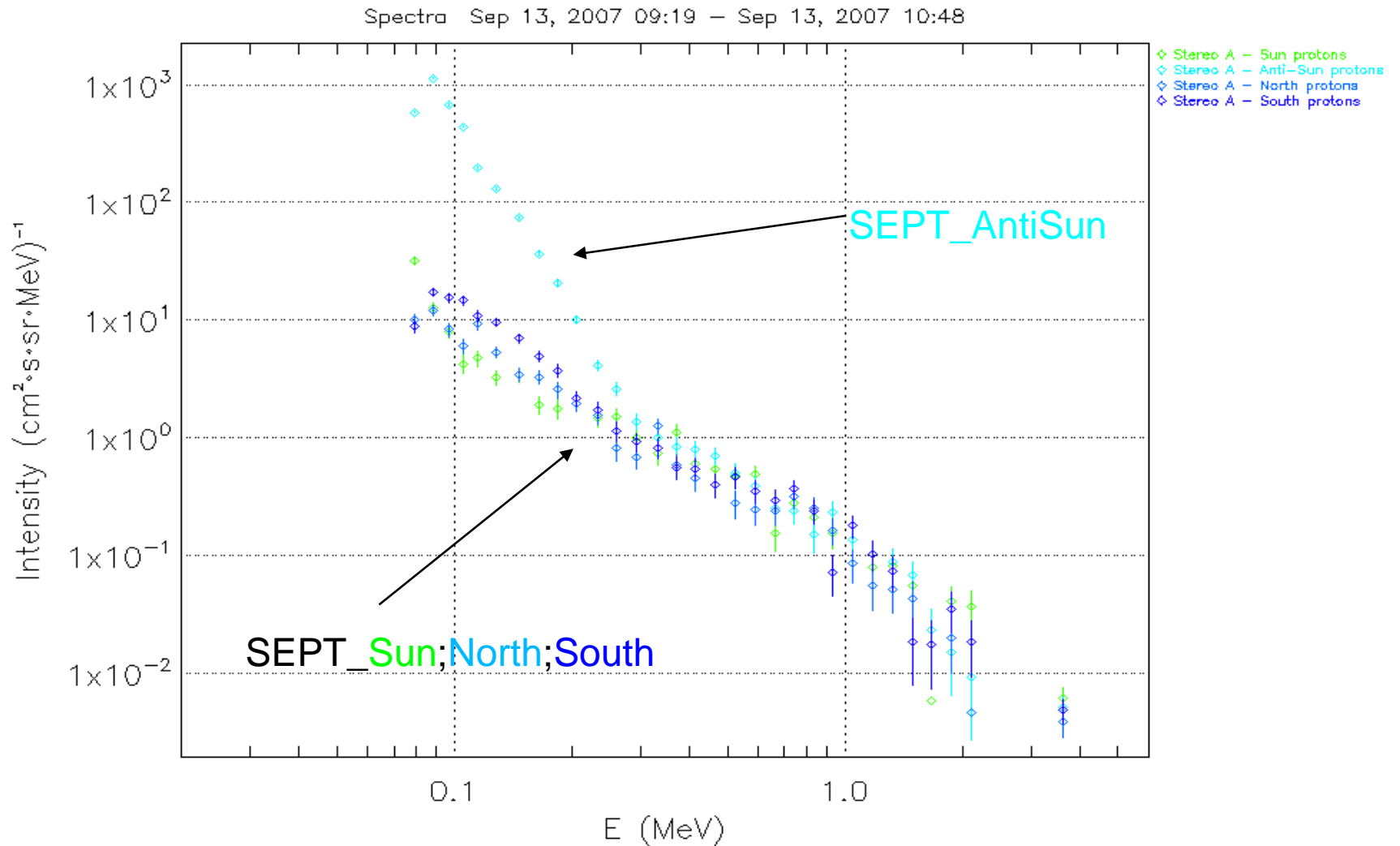




# Spacecraft position and magnetic field orientation during the upstream event on 13 Sept. 2007



# Spectra of upstream event on 13 September 2007 showing significant anisotropy



# Results

- Detection of proton upstream events at **STEREO-A** on 13-14 September 2007 far away from Earth (0.29 AU), one day before CIR.
- Upstream events were observed during slow solar wind  $V_{sw} = \sim 280$  km/s and low geoactivity ( $Kp < 1$ ).
- Similar upstream event was observed also on 13 October 2007 at **STEREO-B** at a distance of 0.3 AU from Earth.

## Question

Are these upstream events really originating near Earth?  
Doubts arise because the events occur during slow solar wind and quiet geomagnetic conditions.