

Influence of the solar wind on El Nino

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Although it is certain that the sun magnetic activity affects the global environment, the details are not clear. In this presentation, we analyze the influence of the solar wind on global environment on the basis of our previous studies [1, 2]. The AE index and total ozone data were used to detect the influence of the solar wind on El Nino. In the analysis, we considered that the influence of the energetic particle fluxes (EPP)-NO_x on ozone at low latitudes may be comparable to the effects of solar UV radiation [Callis et al., 2000, 2001; Langematz et al., 2005; Rozanov et al., 2005].

We found that the change of the total amount of ozone in the region at low latitudes affects atmospheric stability and a monsoon, and thus, it may become the harbinger of the El Nino.

[1] K. Itoh, JpGU 2008-2013

[2] K. Yamashita, JpGU 2014-2016

Keywords: AE index, El Nino, ozone, solar wind