

Uncertainties in TSI measurements against global warming

Yoshiyasu Takefuji

Jeffrey Brainer wrote an article entitled “U.S. to pull out of Paris climate accord” (1). TSI (total solar irradiance) measurements of the Sun from space began in November 1978. TSI measurements before 1978 are uncertain because of uncertain proxy model (2, 3). NOAA shows that the uncertainty (errors) in TSI measurements is larger than 13 W/m^2 (1% of TSI) which is larger than human-induced contributions by IPCC (Intergovernmental Panel on Climate Change) (4). Besides, less than 50 years of TSI measurements may be too early to conclude human-induced contributions against global warming. It is true that TSI plays a key role in global warming.

References:

1. Science 08 Nov 2019: Vol. 366, Issue 6466, pp. 668-670
2. <https://science.sciencemag.org/content/366/6462/180/tab-e-letters>
3. <https://archive.ipcc.ch/ipccreports/tar/wg1/245.htm>
4. <ftp://ftp.ncdc.noaa.gov/pub/data/sds/cdr/presentations/2009/pilewskie-2013.pdf>