re:look
climate

Sample abstract analysis N (incorrect data classification): Rating N (Cook), R-RN: re:look climate;

Author(s)	Reference	Cook category (abstract + title based) E – N – R/U	re:look main category (data based) NR - R	re:look sub category (data based), if R RS – RN - RR	re:look reassessment (this paper)	Details of assessment Comments / Open items
Wang et al.	Journal of Climate. Sep 2009, **22** (18) 4860-4872.	**N**	**R**	**RN**	**-**	Quasi-Stationary Planetary Wave Activity

Title: Interdecadal Variations of the East Asian Winter Monsoon and Their Association with Quasi-Stationary Planetary Wave Activity.

Abstract:

Interdecadal variations of the East Asian winter monsoon (EAWM) and their association with the quasi-stationary planetary wave activity are analyzed by using the 40-yr European Centre for Medium-Range Weather Forecasts Re-Analysis dataset and the National Centers for Environmental Prediction–National Center for Atmospheric Research reanalysis dataset. It is found that the EAWM experienced a significant weakening around the late 1980s; that is, the EAWM was strong during 1976–87 and became weak after 1988. This leads to an obvious increase in the wintertime surface air temperature as well as a decrease in the frequency of occurrence of cold waves over East Asia. The dynamical process through which the EAWM is weakened is investigated from the perspective of quasi-stationary planetary waves. It is found that both the propagation and amplitude of quasi-stationary planetary waves have experienced obvious interdecadal variations, which are well related to those of the EAWM. Compared to the period 1976–87, the horizontal propagation of quasi-stationary planetary waves after 1988 is enhanced along the low-latitude waveguide in the troposphere, and the upward propagation of waves into the stratosphere is reduced along the polar waveguide. This results in a weakened subtropical jet around 40°N due to the convergence of the Eliassen–Palm flux. The East Asian jet stream is then weakened, leading to the weakening of the EAWM since 1988. In addition, the amplitude of quasi-stationary planetary waves is significantly weakened around 45°N, which is related to the reduced upward propagation of waves from the lower boundary after 1988. This reduced amplitude may weaken both the Siberian high and the Aleutian low, reduce the pressure gradient in between, and then weaken the EAWM. Further analyses indicate that zonal wavenumber 2 plays the dominant role in this process.

Justification of Classification:

Cook: N: The abstract does not mention anything directly in relation to AGW.

re:look climate: R (relevant) RN The work details interdecadal variations of the East Asian winter monsoon (EAWM) and their association with the quasi-stationary planetary wave activity. This explores non-GHG-AGW climate mechanisms.

Overall re:look conclusion: The work is clearly relevant for regional and global climate modelling, it data do not contribute anything in support of GHG-AGW.