

Possible connection between Pacific Oceanic interdecadal pathway and east Asian winter Monsoon

Wen Zhou, Chongyin Li, and Xin Wang



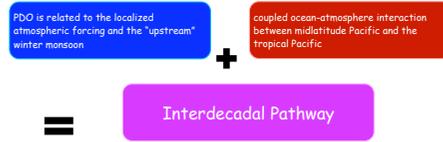
Guy Carpenter Asia-Pacific Climate Impact Centre, School of Energy and Environment, City University of Hong Kong, China. Contact: wenzhou@cityu.edu.hk



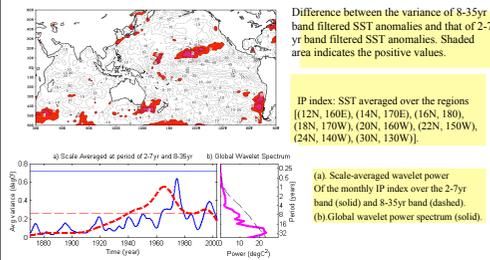
For details, Zhou W, C. Y. Li, and X. Wang, 2007: GEOPHYSICAL RESEARCH LETTERS, VOL. 34, L01701, 6 PP.

I) Overview

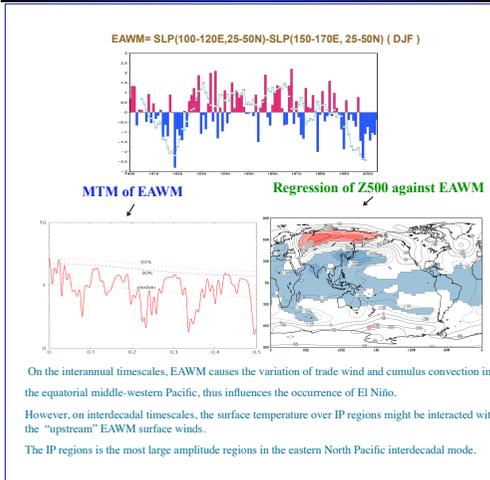
- This paper highlights the SST interdecadal variability over the Eastern North Pacific and its connection with East Asian winter monsoon (EAWM) on decadal timescales. Aside from PDO pattern, the SST interdecadal variation is the most significant over IP region, where there is the intense air-sea interaction involved with EAWM, including both wind stress and latent heat flux.
- A possible explanation for the phase change of PDO is related to the localized atmospheric forcing and the "upstream" winter monsoon. SSTA interdecadal variation over the IP regions is the 'bridge' linking the coupled ocean-atmosphere interaction between midlatitude Pacific and the tropical Pacific.



II) Interdecadal Pathway (IP) index

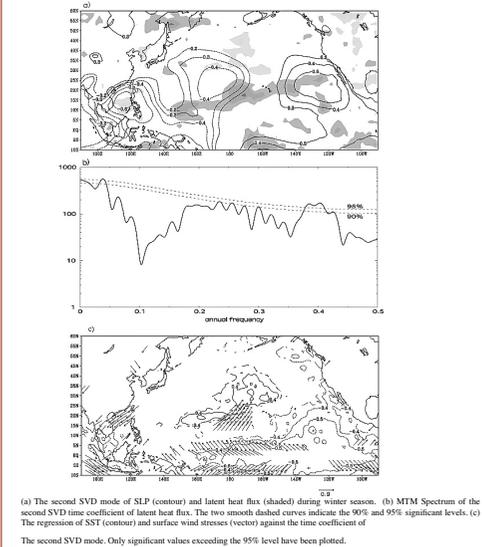


III) Interdecadal Variability of EAWM



IV) The role of IP

The question here is how the EAWM links to the interdecadal variation of this IP regions?



The first SVD mode of SLP (sea level pressure) and latent heat flux during winter season with explained variance about 31% represents the interannual signal (not shown), while the explained variance of the second SVD mode is about 17%.

V) EAWM and IP

