Supplemental Material

Journal of Climate

Two Approaches of the Spring North Atlantic Sea Surface Temperature Affecting the Following July Precipitation over Central China: The Tropical and Extratropical Pathways

https://doi.org/10.1175/JCLI-D-21-1012.1

Table S1. A list of 15 CMIP6/AMIP models used in this study.

Model name	**Institution**
ACCESS-CM2 ACCESS-ESM1-5	Commonwealth Scientific and Industrial Research Organisation, and Australian Research Council Centre of Excellence for Climate System Science, Australia
BCC-CSM2-MR BCC-ESM1	Beijing Climate Center, China
CAMS-CSM1-0	Chinese Academy of Meteorological Sciences, China
CanESM5	Canadian Centre for Climate Modelling and Analysis, Canada
CESM2 CESM2-FV2 CESM2-WACCM CESM2-WACCM-FV2	National Center for Atmospheric Research, USA
CNRM-CM6-1 CNRM-CM6-1-HR CNRM-ESM2-1	Centre National de Researches Météorologiques-Centre Européen de Researche et de Formation Avancée en Calcul Scientifique, France
EC-Earth3 EC-Earth3-Veg	EC-Earth Consortium, Europe

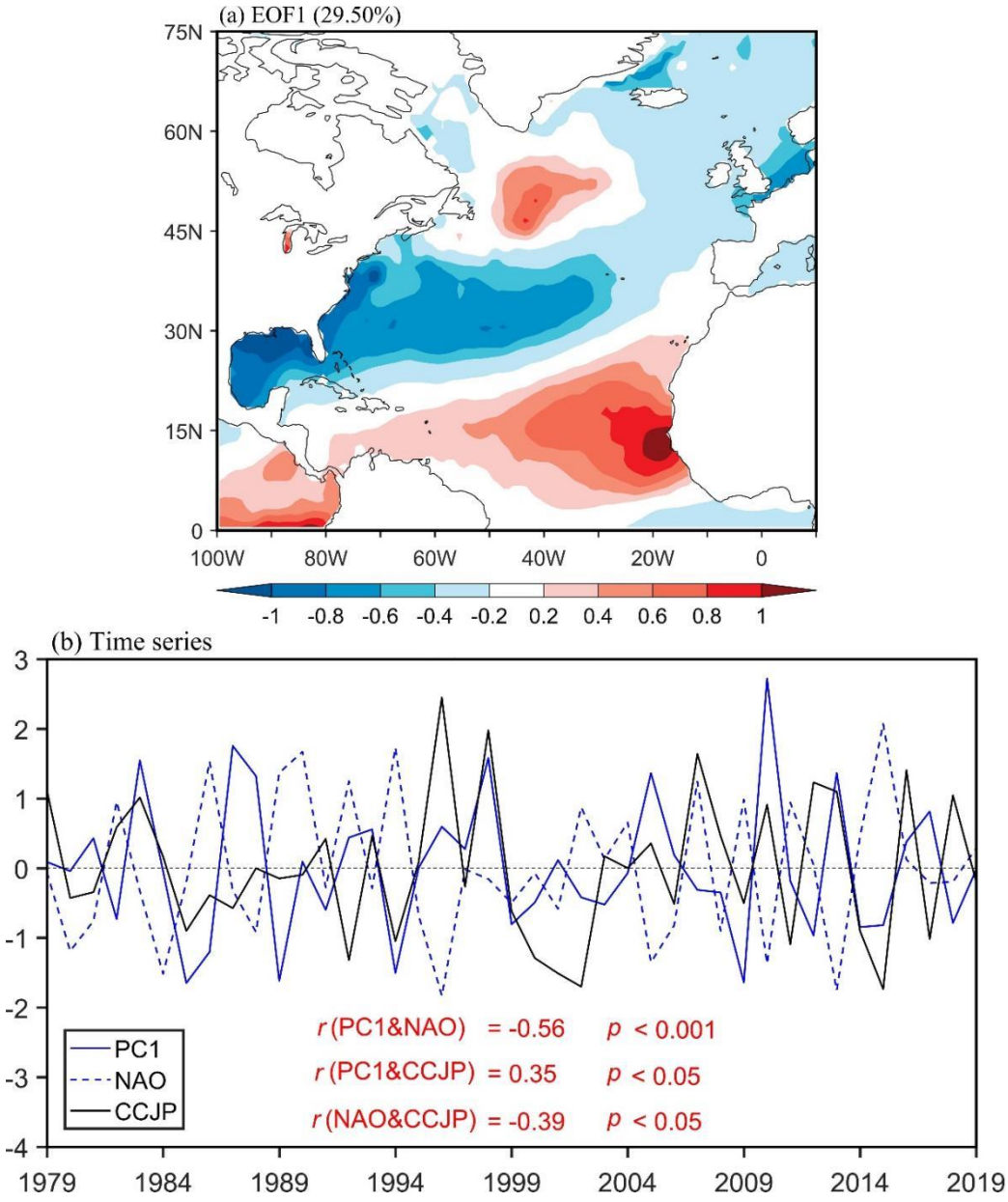

Figure S1. (a) The leading Empirical Orthogonal Function (EOF1) mode of spring SST (℃) anomalies in North Atlantic during the period of 1979-2019. (b) Time series of the first principal component (PC1), the spring North Atlantic Oscillation (NAO) index and the CCJP index. The percentage at the top of (a) indicates the variance explained by the EOF1 mode. *r*(PC1&NAO), *r*(PC1&CCJP) and *r*(NAO&CCJP) in (b) are the correlation coefficients among the PC1, the spring NAO index and the CCJP index. All data are linearly detrended and standardized.

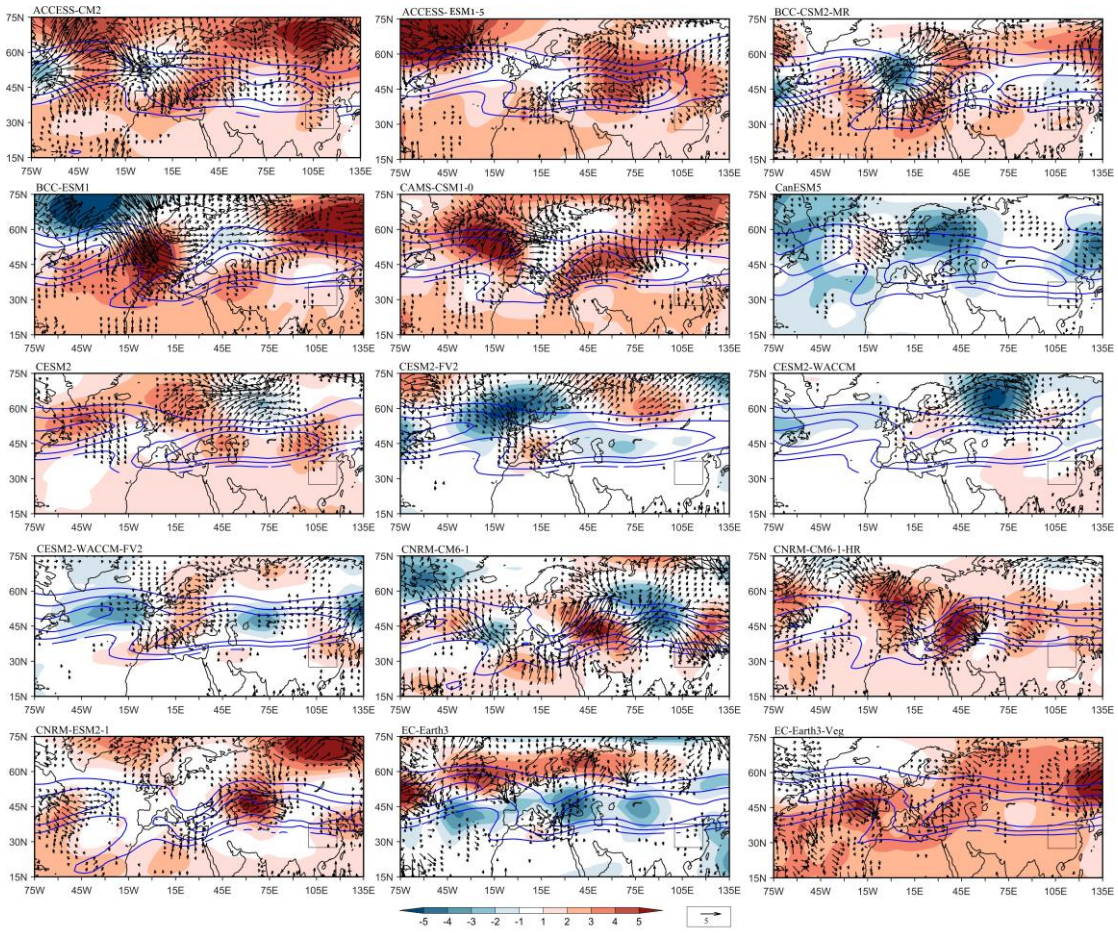

Figure S2. Regression map of the July 200-hPa streamfunction (shaded; 5×10^5 m^2 s^{-1}) and wave activity flux anomalies (arrows; m^2 s^{-2}) onto the spring TSNA SST index in 15 CMIP6/AMIP models. The name of each model is given at the top of each figure. The blue solid lines are the 200-hPa zonal wind larger than 12 m s^{-1}, with intervals of 4 m s^{-1}, denoting the jet stream. Vector speeds less than 1 m^2 s^{-2} are not shown. The boxed area denotes the region of central China.

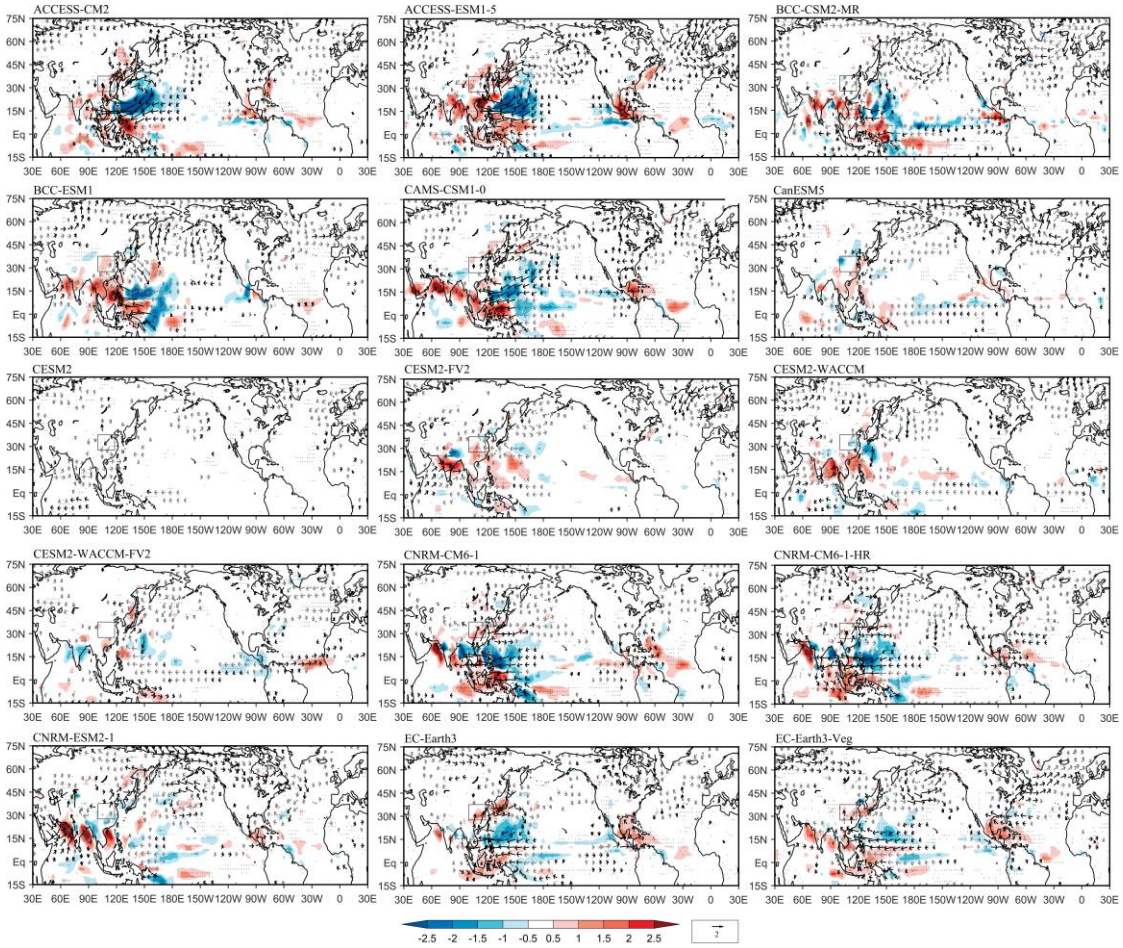

Figure S3. Regression map of the July precipitation anomalies (shaded; mm day^{-1}) and 850-hPa wind anomalies (vectors; m s^{-1}) onto the spring TSNA SST index in 15 CMIP6/AMIP models. The name of each model is given at the top of each figure. The dots indicate that the regressed precipitation anomalies are at the significance level of $p < 0.1$. The black arrows indicate that the zonal or meridional component of the wind anomalies exceed the significance level of $p < 0.1$. Wind speeds less than 0.5 m s^{-1} are not shown. The boxed area denotes the region of central China.