



Tropical-extratropical teleconnection associated with stratospheric QBO

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The possible tropical-extratropical teleconnection associated with stratospheric Quasi-Biennial Oscillation (QBO) is examined with reanalysis and observational data sets. It is found that the QBO significantly modulates convective activities over the subtropical western North Pacific by modifying background flow in the upper troposphere and lower stratosphere. The resulting diabatic heating then influences extratropical circulations by exciting Rossby wave trains arching over the North Pacific to the east coast of USA. This teleconnection pattern, whose spatial pattern is somewhat different from PNA pattern, is identified in all seasons, with a strongest signal in boreal autumn.