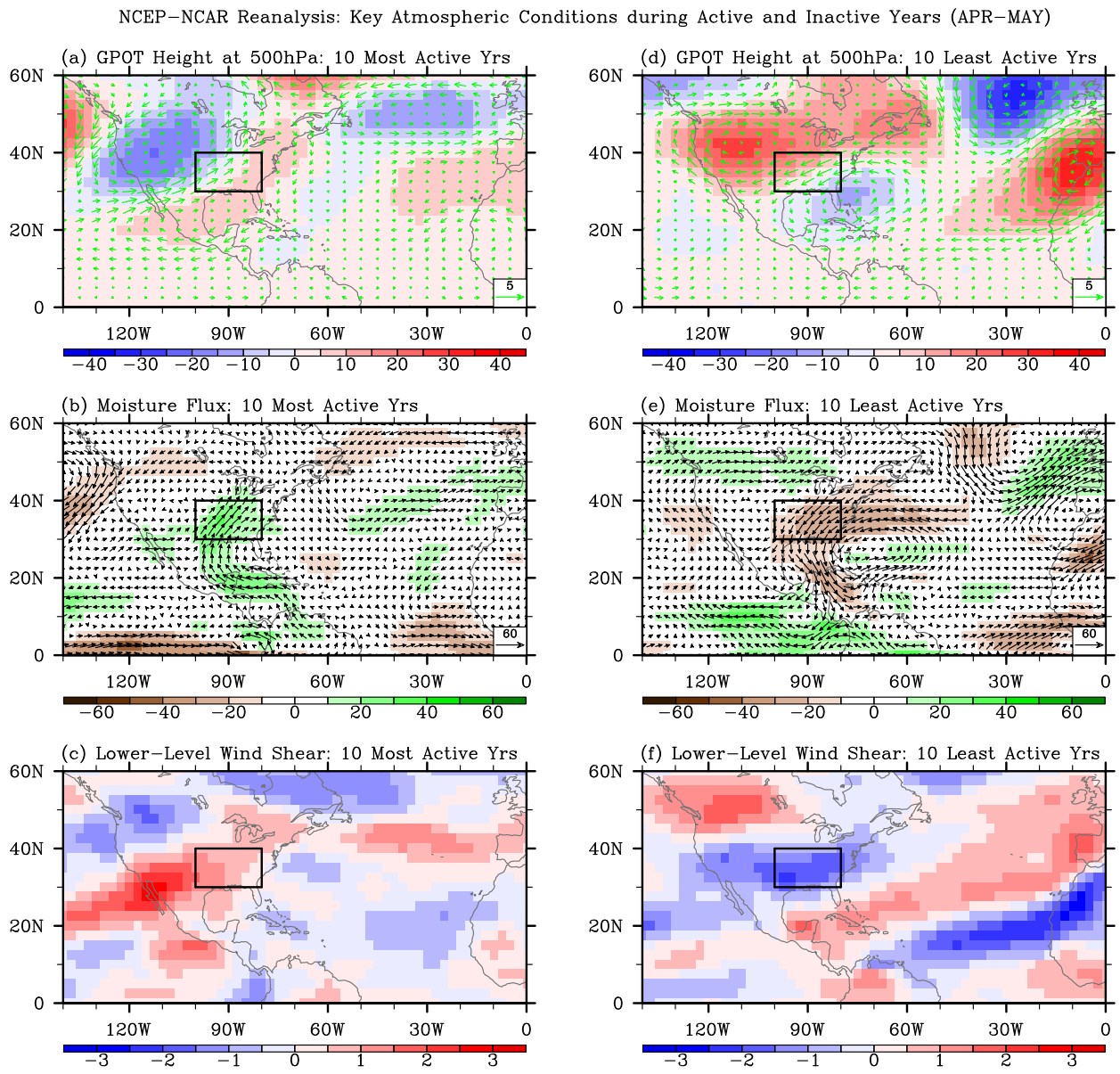

Figure 1. Anomalous geopotential height and wind at 500 hPa, moisture transport and lower-level (500 hPa – 925 hPa) vertical wind shear for the ten most active U.S. tornado years (a, b and c) and the ten least active U.S. tornado years (d, e and f) in AM during 1950-2010 obtained from NCEP-NCAR reanalysis. The unit is kg $m^{-1}sec^{-1}$ for moisture transport, m for geopotential height, and m s^{-1} for wind and wind shear. The small box in (a) - (f) indicates the central and eastern U.S. region frequently affected by intense tornadoes.

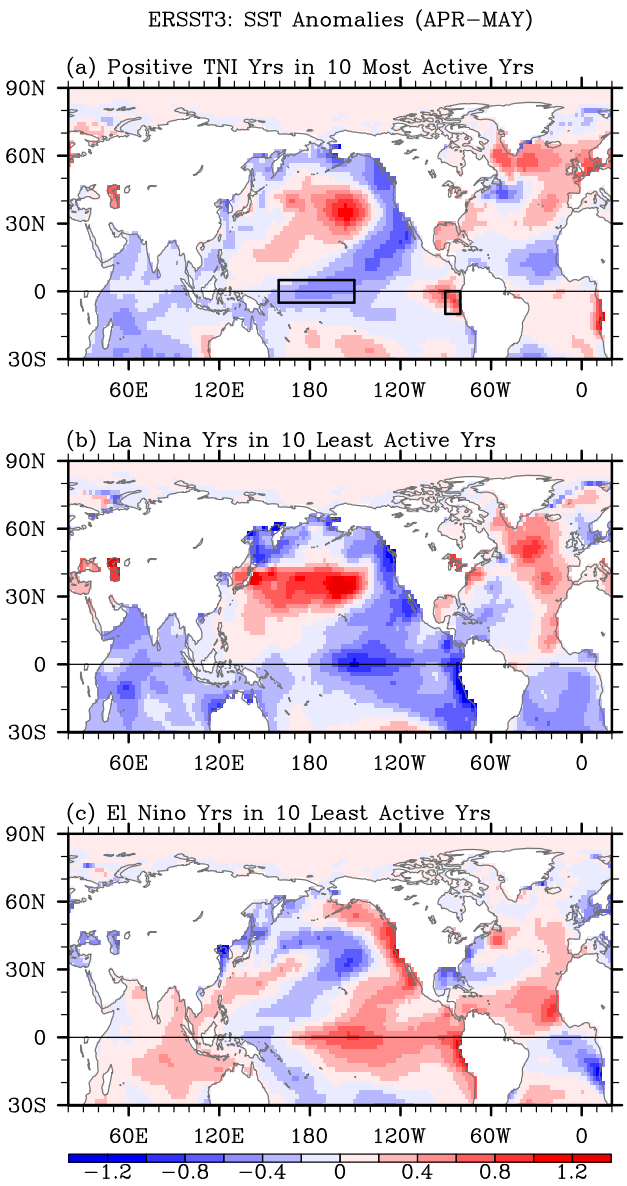

Figure 2. Composite SST anomalies in AM, obtained from ERSST3, for (a) the five positive TNI years transitioning from a La Niña identified among the ten most active U.S. tornado years in AM during 1950-2010, and for (b) the four years with a La Niña transitioning and (c) the four years with an El Niño transitioning identified among the ten least active U.S. tornado years in AM during 1950-2010. Thick black lines in (a) indicate the Niño-4 (5°N - 5°S; 160°E - 150°W) and Niño-1+2 (10S° - 0°; 90°W - 80°W) regions.

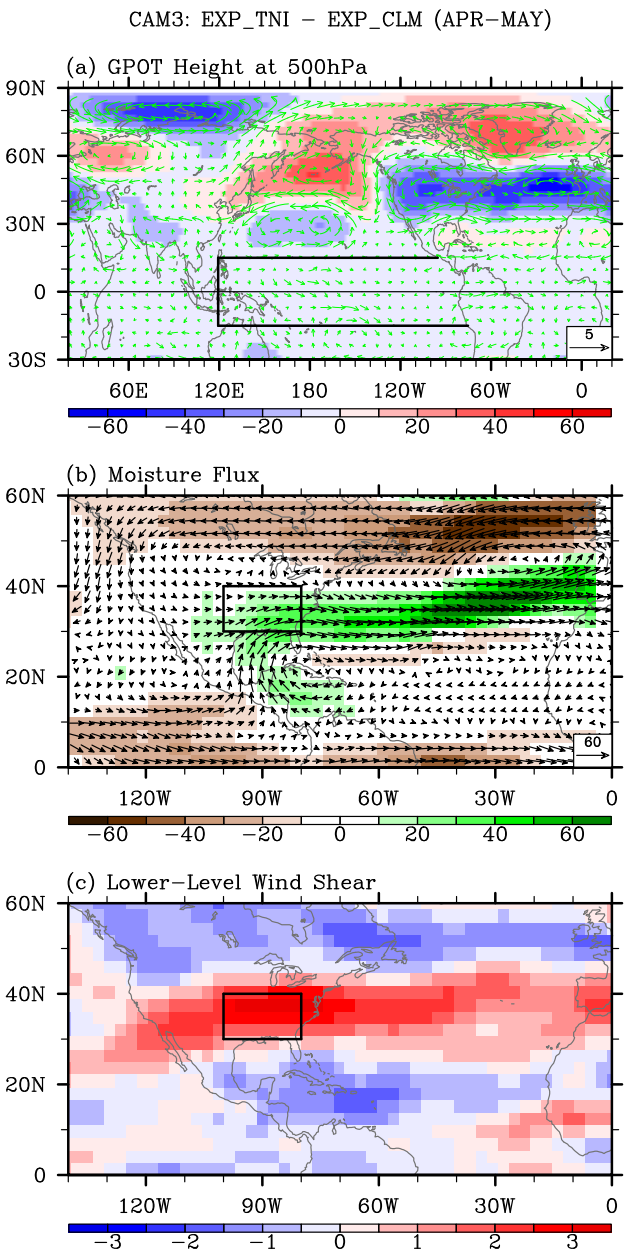

Figure 3. Simulated anomalous (a) geopotential height and wind at 500 hPa, (b) moisture transport and (c) lower-level (500 hPa – 925 hPa) vertical wind shear in AM obtained from EXP_TNI – EXP_CLM. The unit is kg m^{-1} sec^{-1} for moisture transport, m for geopotential height, and m s^{-1} for wind and wind shear. Thick black lines in (a) indicate the tropical Pacific region where the model SSTs are prescribed. The small box in (b) and (c) indicates the central and eastern U.S. region frequently affected by intense tornadoes.

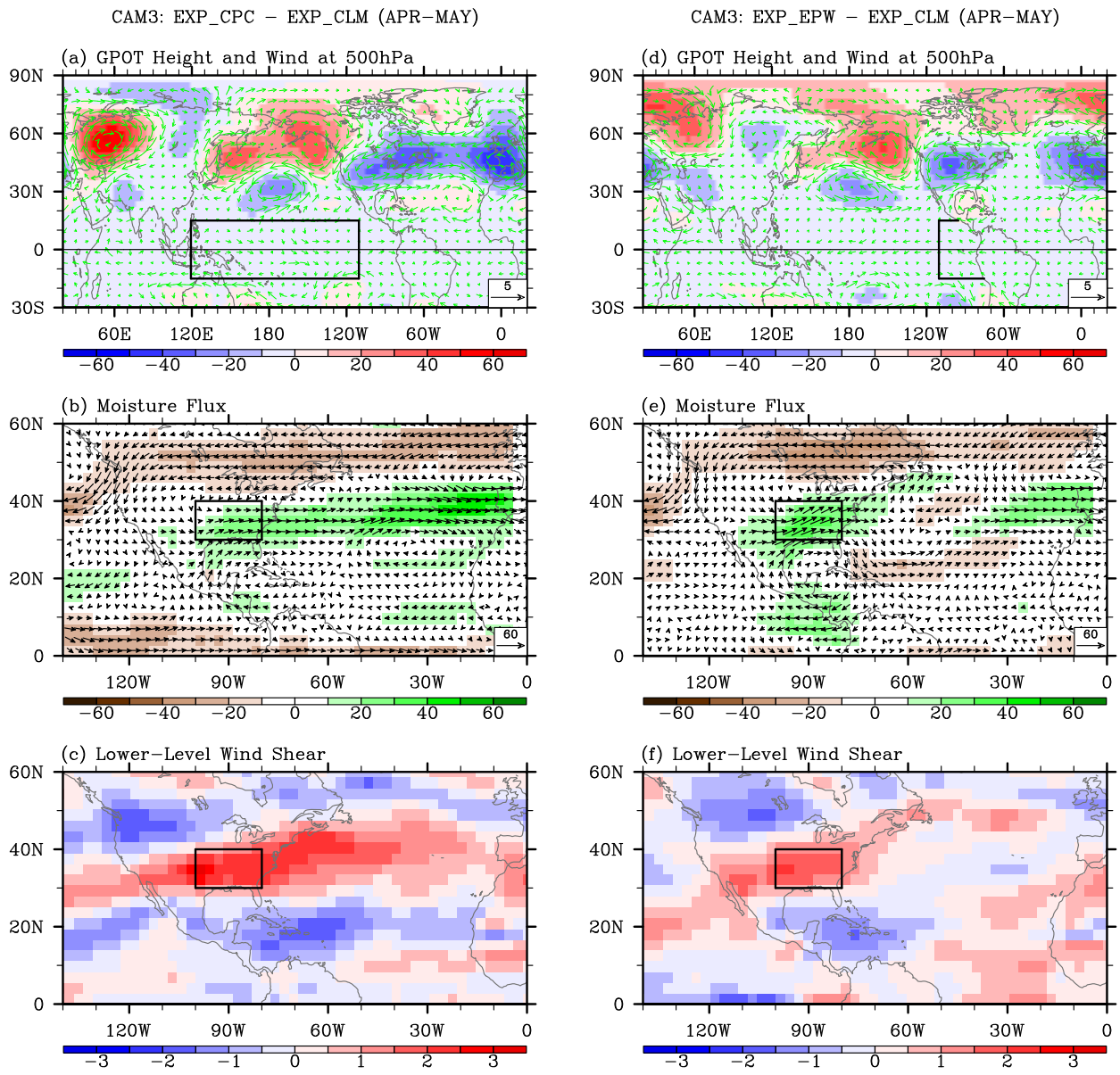

Figure 4. Simulated anomalous geopotential height and wind at 500 hPa, moisture transport, and lower-level (500 hPa – 925 hPa) vertical wind shear in AM obtained from EXP_CPC – EXP_CLM (a, b and c), and EXP_EPW – EXP_CLM (d, e and f). The unit is kg m^{-1} sec^{-1} for moisture transport, m for geopotential height, and m s^{-1} for wind and wind shear. Thick black lines in (a) and (d) indicate the regions where the model SSTs are prescribed. The small box in (b), (c), (e) and (f) indicates the central and eastern U.S. region frequently affected by intense tornadoes.