Figure S1: Same as Fig. 3, except using TOMS/OMI as the observational data set.
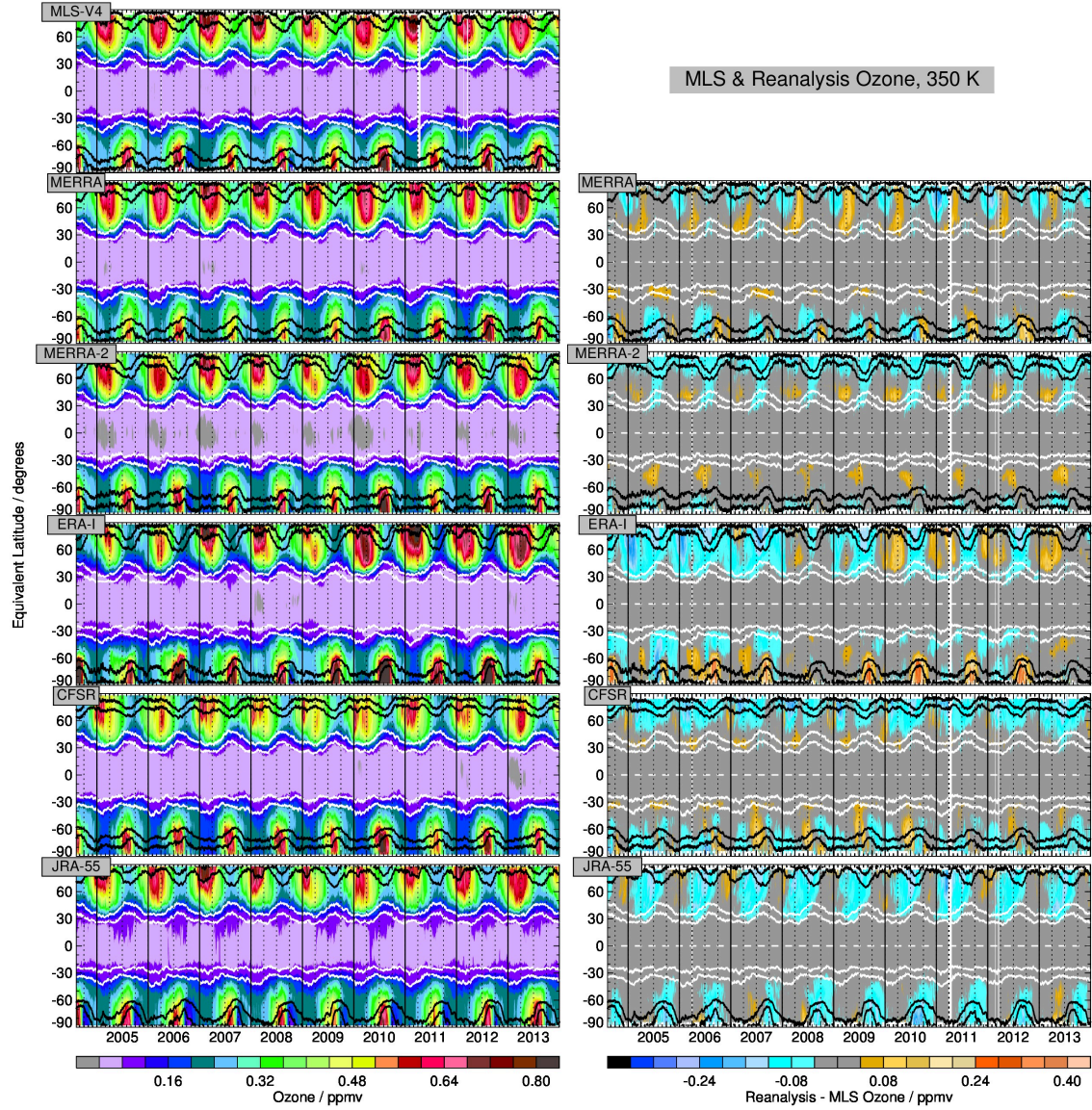
Figure S2: Same as Fig. 7, but at 350 K.
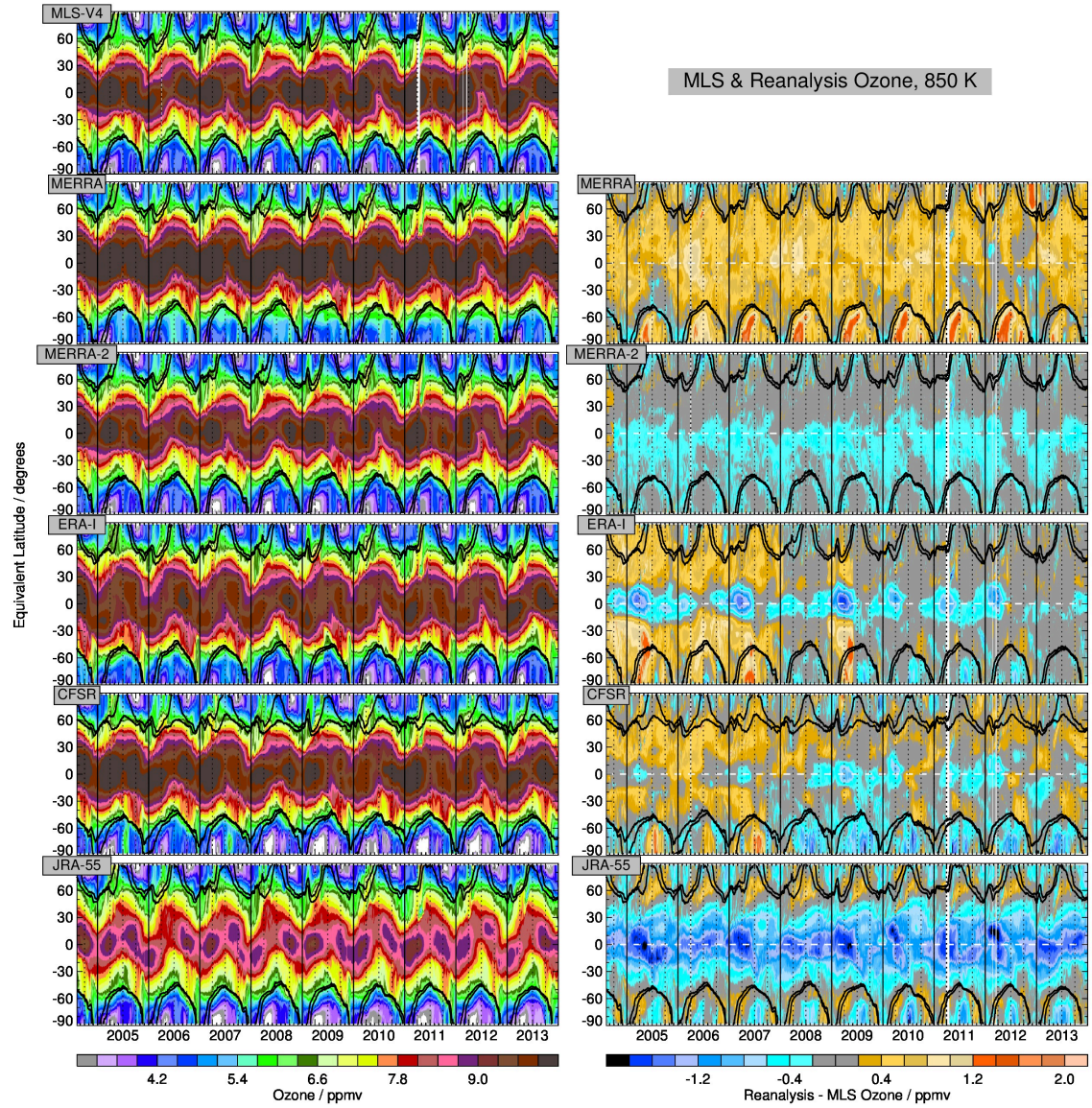
Figure S3: Same as Fig. 7, but at 850 K.
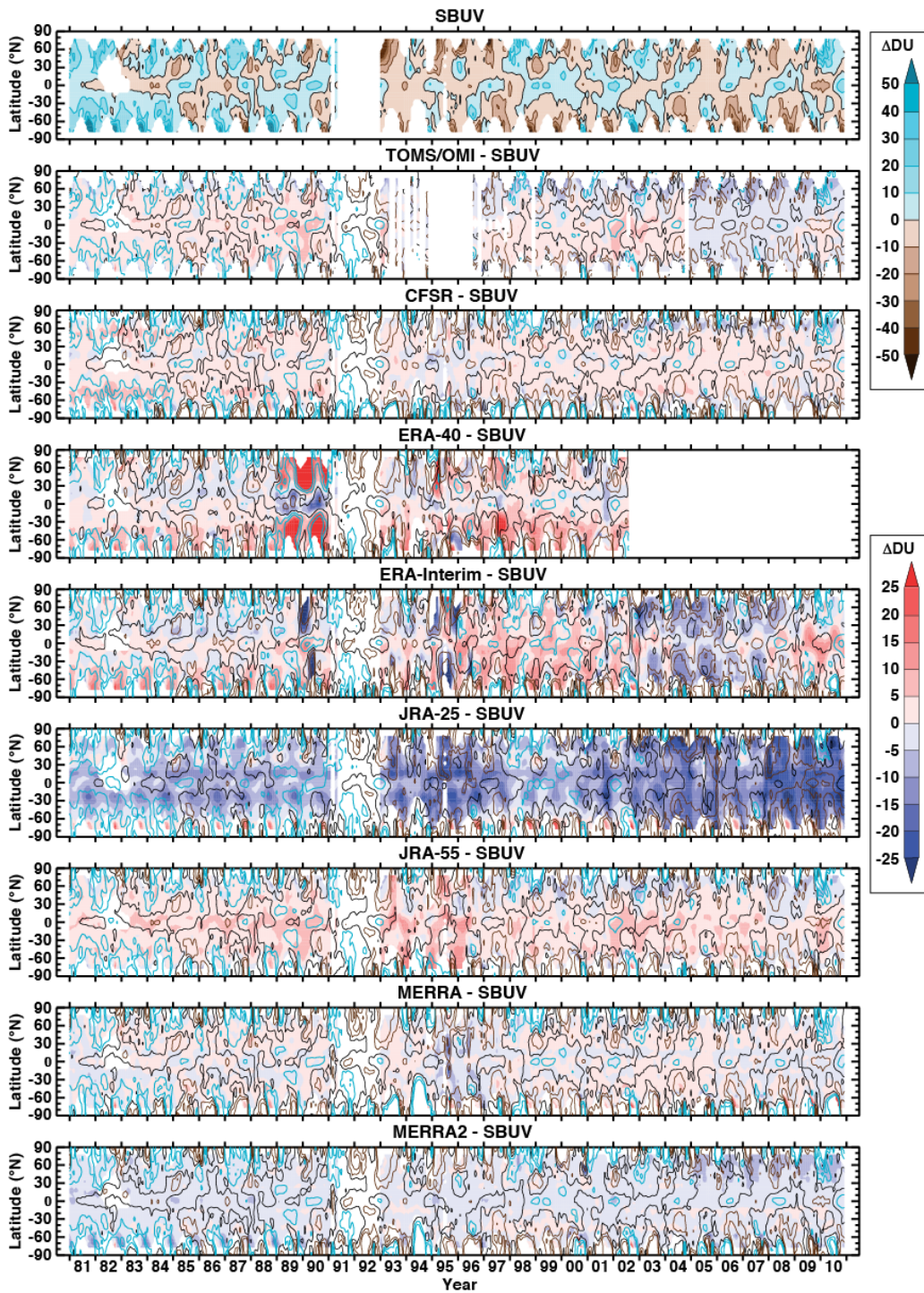
Figure S4: TCO latitude vs. time anomalies for SBUV (top row), differences between TOMS/OMI and SBUV (second from top), and differences between SBUV and the reanalyses (other rows).
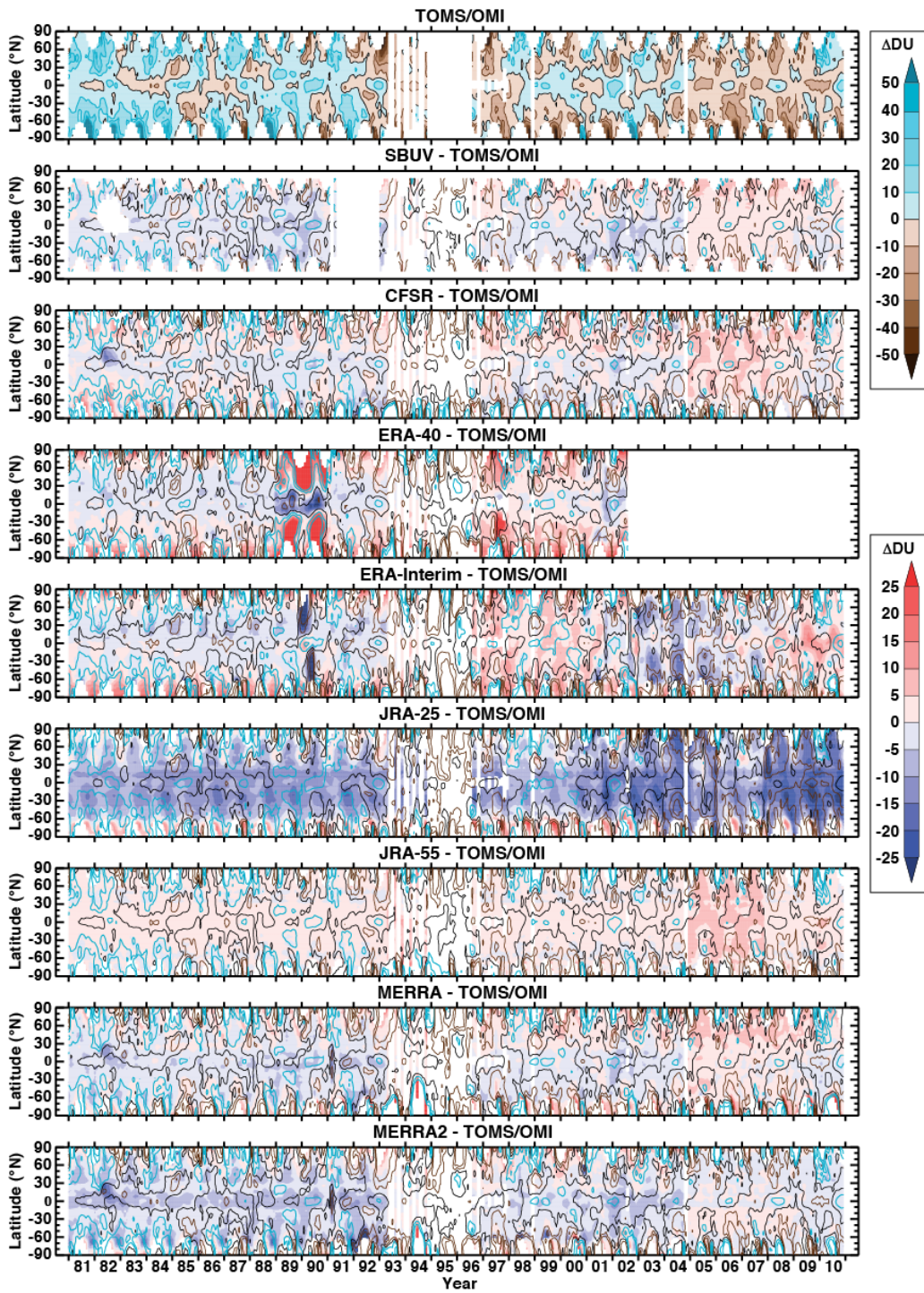
Figure S5: TCO latitude vs. time anomalies for TOMS/OMI (top row), differences between SBUV and TOMS/OMI (second from top), and differences between TOMS/OMI and the reanalyses (other rows).