ELEVATION ANGLE 42.0°

Figure A1: Statistics of the differences between observations and background TB. Observations are TB measured by ground-based MWR. Background counterparts are TB simulated with RTTOV-gb from AROME-France 3-hour forecast profiles in clear-sky conditions at 42° elevation angle. Statistics for JOYCE, LACROS, Payerne, SIRTA, and CESAR are reported. Biases are shown with black lines, standard deviations with red lines and RMS with blue lines.
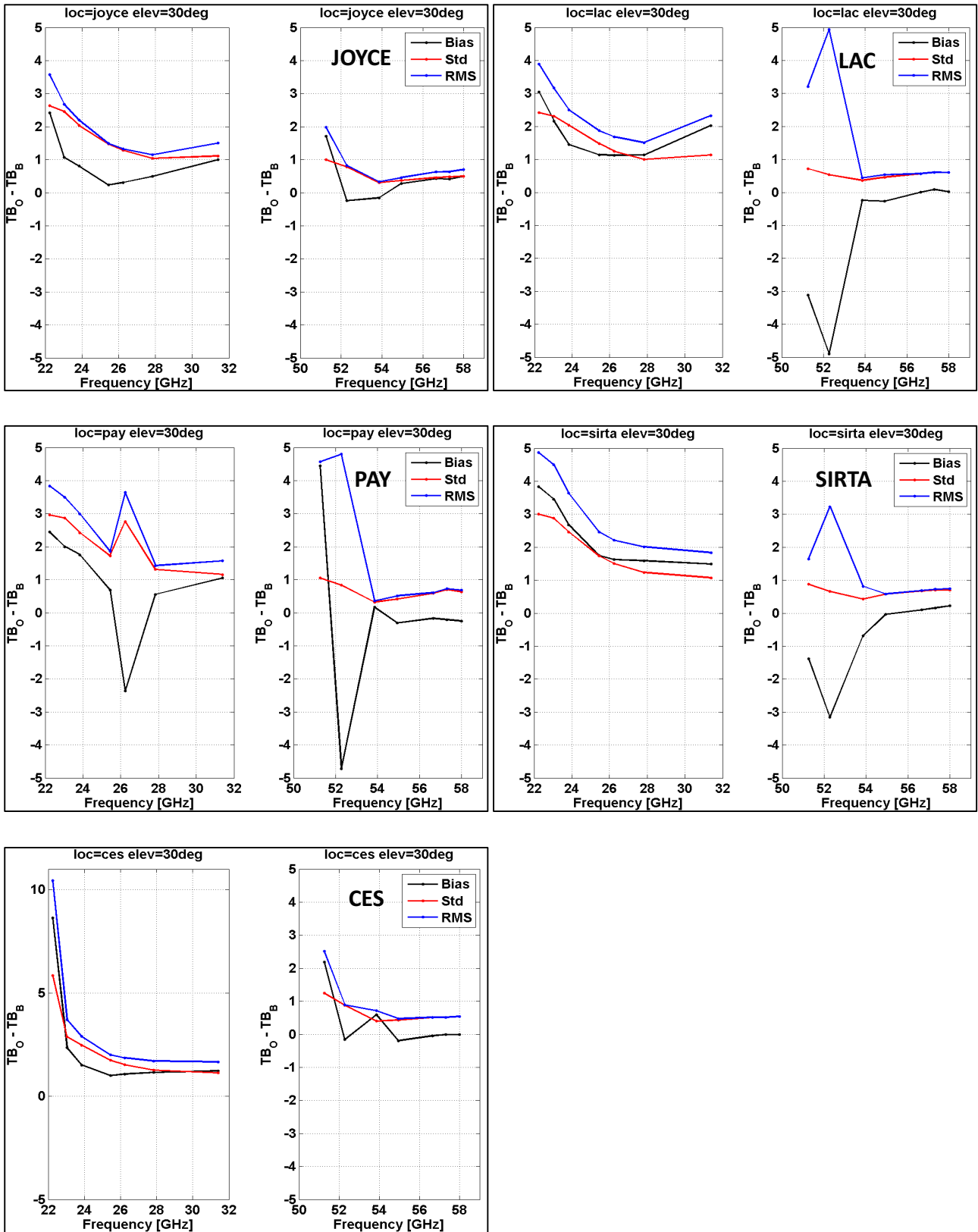
Figure A2: Statistics of the differences between observations and background TB, as in Figure 3, at 30° elevation angle. Statistics for JOYCE, LACROS, Payerne, SIRTA, and CESAR are reported. Biases are shown with black lines, standard deviations with red lines and RMS with blue lines.
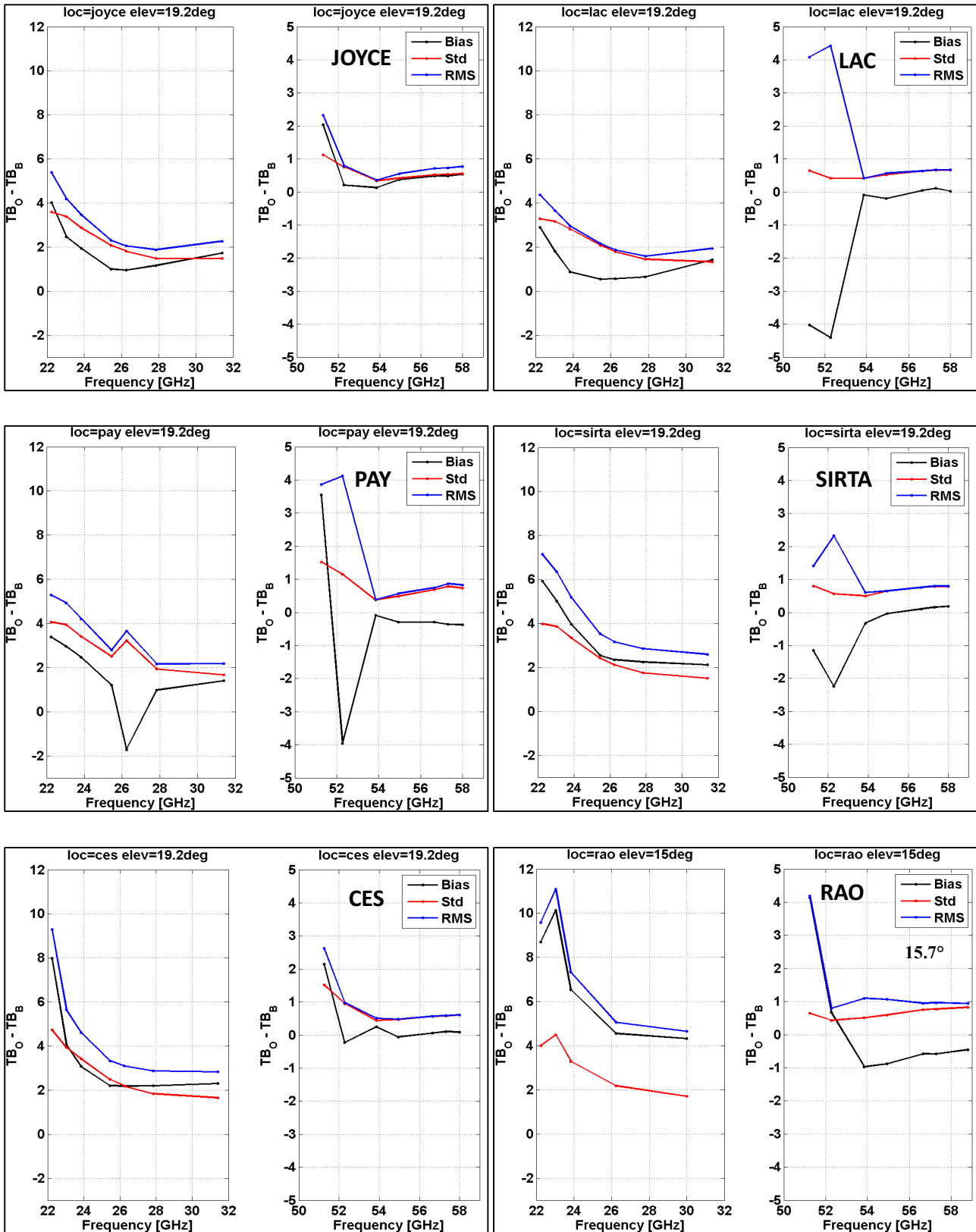
Figure A3: Statistics of the differences between observations and background TB, as in Figure 3, at 19.2° elevation angle. Statistics for JOYCE, LACROS, Payerne, SIRTA, CESAR, and RAO are reported. Biases are shown with black lines, standard deviations with red lines and RMS with blue lines. Statistics from RAO refer to 15.7° elevation angle.

ELEVATION ANGLE 10.2°
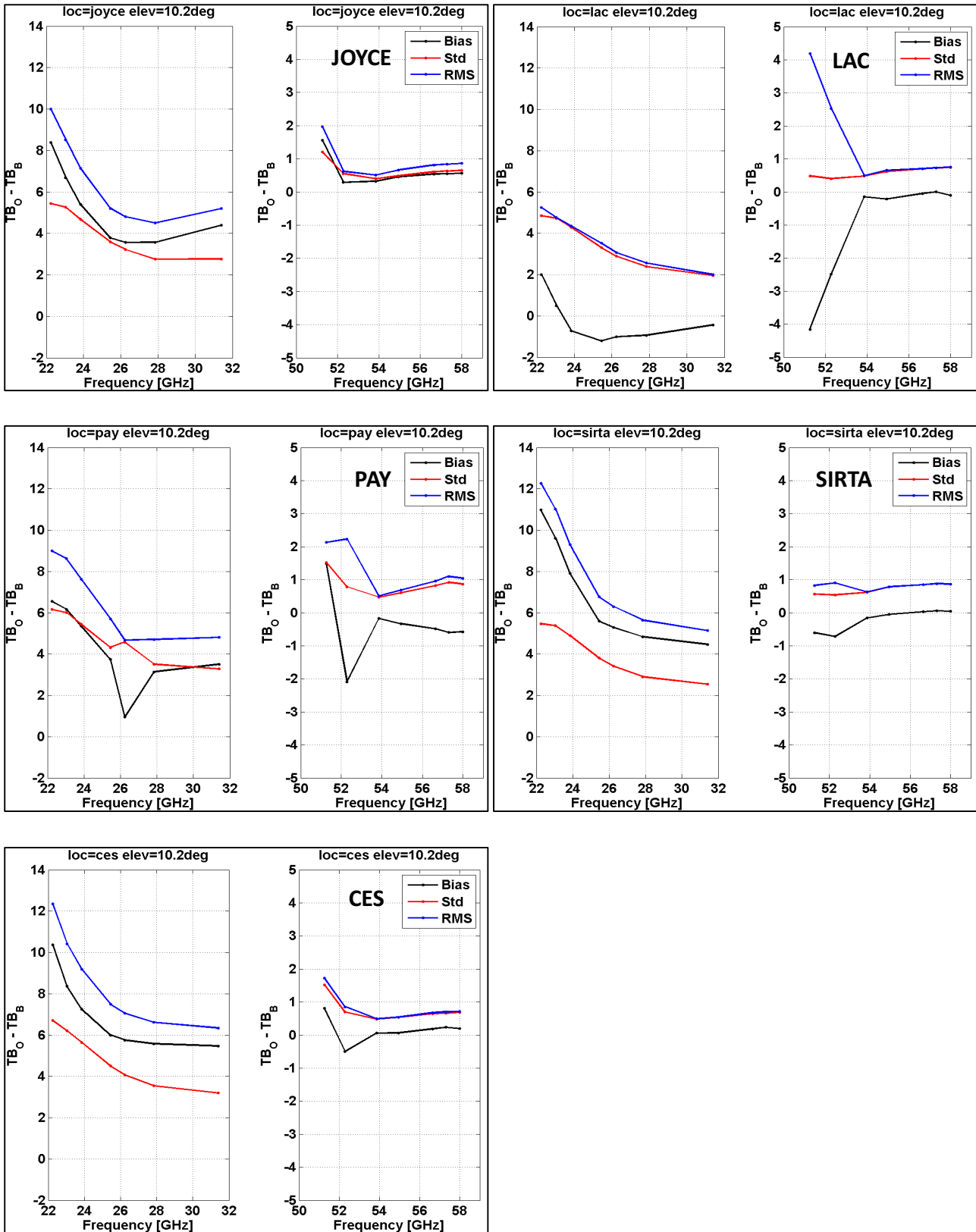
Figure A4: Statistics of the differences between observations and background TB, as in Figure 3, at 10.2° elevation angle. Statistics for JOYCE, LACROS, Payerne, SIRTA, and CESAR are reported.
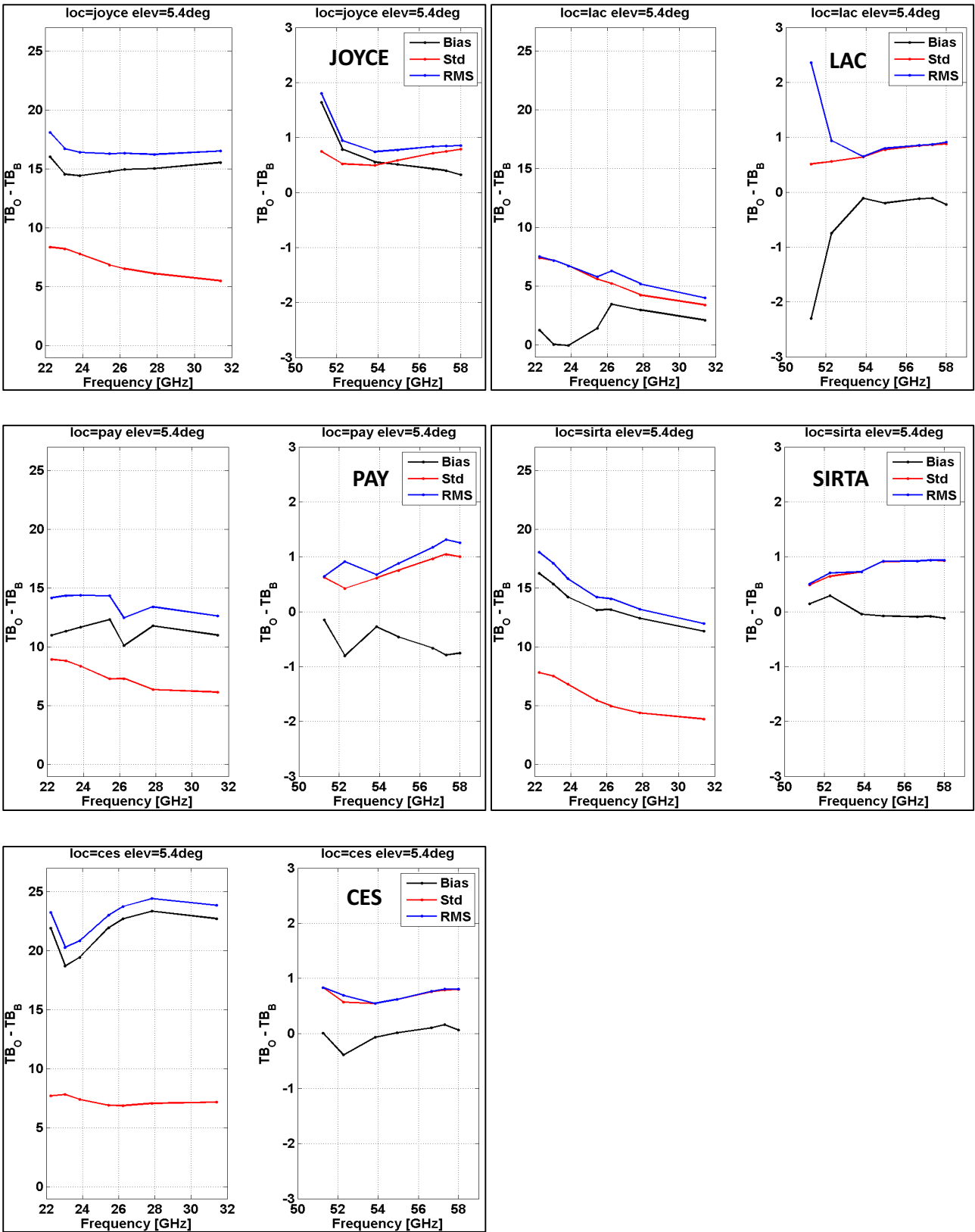
Figure A5: Statistics of the differences between observations and background TB, as in Figure 3, at 5.4° elevation angle. Statistics for JOYCE, LACROS, Payerne, SIRTA, and CESAR are reported.