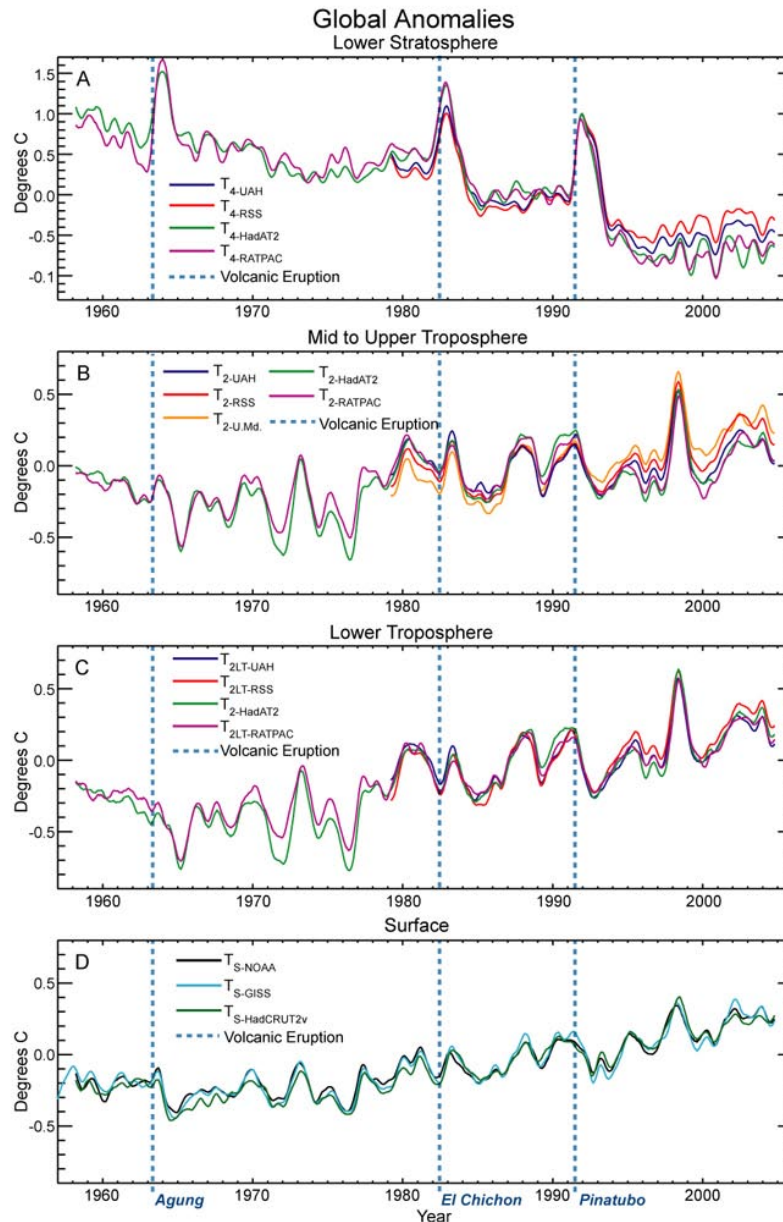
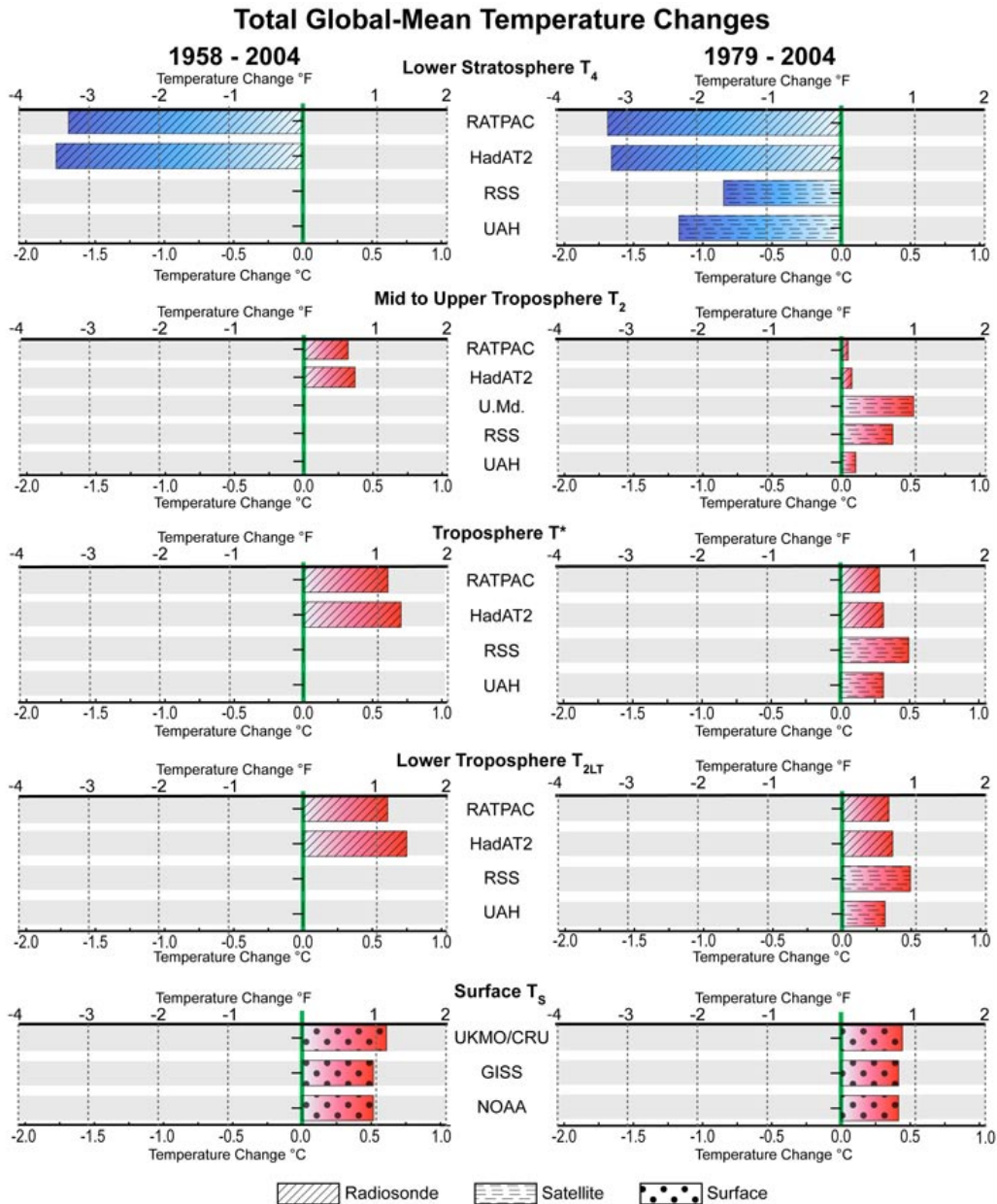


Executive Summary Figures for Public Review

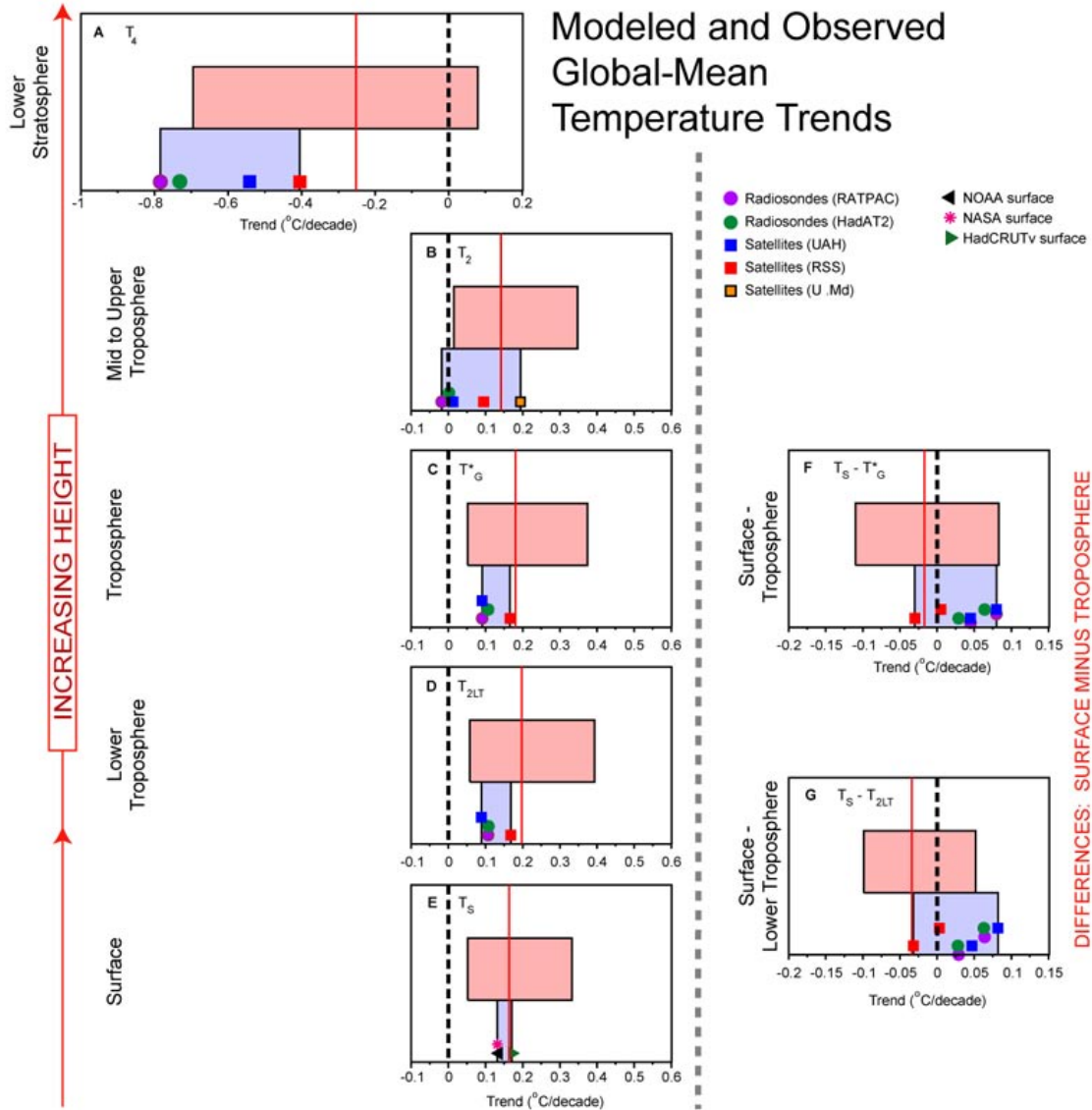
EXECUTIVE SUMMARY



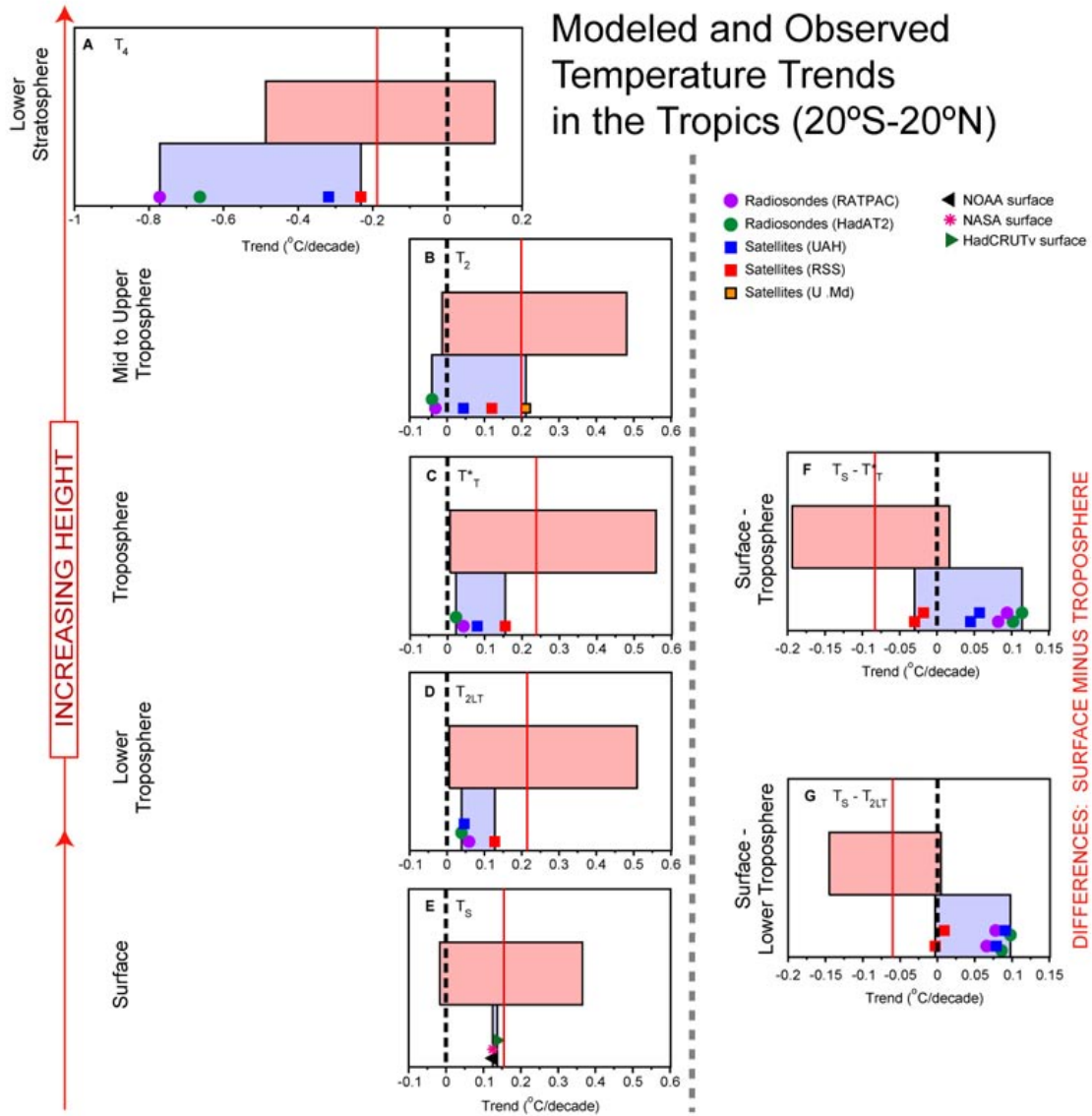
Executive Summary Figure 1: Observed surface and upper air global-mean temperature records. From top to bottom: A, lower stratosphere (denoted T_4) records from two satellite analyses (UAH and RSS) together with equivalently-weighted radiosonde records based on HadAT2 and RATPAC data; B, mid- to upper-troposphere (T_2) records from three satellite analyses (UAH, RSS and U.Md.) together with equivalently-weighted radiosonde records based on HadAT2 and RATPAC; C, lower troposphere (T_{2LT}) records from UAH and RSS (satellite), and from HadAT2 and RATPAC (equivalently-weighted radiosonde); D, surface (T_s). All time series are based on monthly-mean data smoothed with a 7-month running average, expressed as departures from the Jan. 1979 to Dec. 1997 average. Note that the T_2 data (panel B) contain a small contribution (about 10%) from the lower stratosphere. Information here is from Figures 3.1, 3.2 and 3.3 in Chapter 3.



Executive Summary Figure 2: Total global-mean temperature changes for the surface and different atmospheric layers, from different data sets and over two periods, 1958 to 2004 and 1979 to 2004. The values shown are the total change over the stated period in both degrees Celsius (degC; lower scales) and degrees Fahrenheit (degF; upper scales). All changes are statistically significant at the 5% level except RSS T_4 and RATPAC, HadAT2 and UAH T_2 . Total change in degC is the linear trend in degC per decade (see Tables 3.2 and 3.3 in Chapter 3) times the number of decades in the time period considered. Total change in degF is this number times 1.8 to convert to degF. For example, the Table 3.2 trend for NOAA surface temperatures over January 1958 through December 2004 is 0.11°C/decade. The total change is therefore 0.11 times 4.7 decades to give a total change of 0.53°C, Multiplying this by 1.8 gives a total change in degrees Fahrenheit of 0.93°F. Warming is shown in red, and cooling in blue.



Executive Summary Figure 3: Comparison of observed and model-simulated global-mean temperature trends (left-hand panels) and trend differences (right-hand panels) over January 1979 through December 1999, based on Table 5.4A and Figure 5.3 in Chapter 5. The upper red rectangles in each box show the range of model trends from 49 model simulations. The lower blue rectangles show the range of observed trends, with the individual trends from different data sets indicated by the symbols. From bottom to top, the left-hand panels show trends for the surface (T_s), the lower troposphere (T_{2LT}), the troposphere (T^*), the mid troposphere to lower stratosphere (T_2), and the lower stratosphere (T_4). The right-hand panels show differences in trends between the surface and either the troposphere or the lower troposphere, with a positive value indicating a stronger warming at the surface. The red vertical lines show the average of all model results. The vertical black dashed lines show the zero value. For the observed trend differences, there are eight values corresponding to combinations of the four upper-air data sets (as indicated by the symbols) and either the HadCRUT2v surface data or the NASA/NOAA surface data (which have almost identical trends).



Executive Summary Figure 4: As Figure 3, but for the tropics (20°S to 20°N), based on Table 5.4B and Figure 5.4 in Chapter 5.