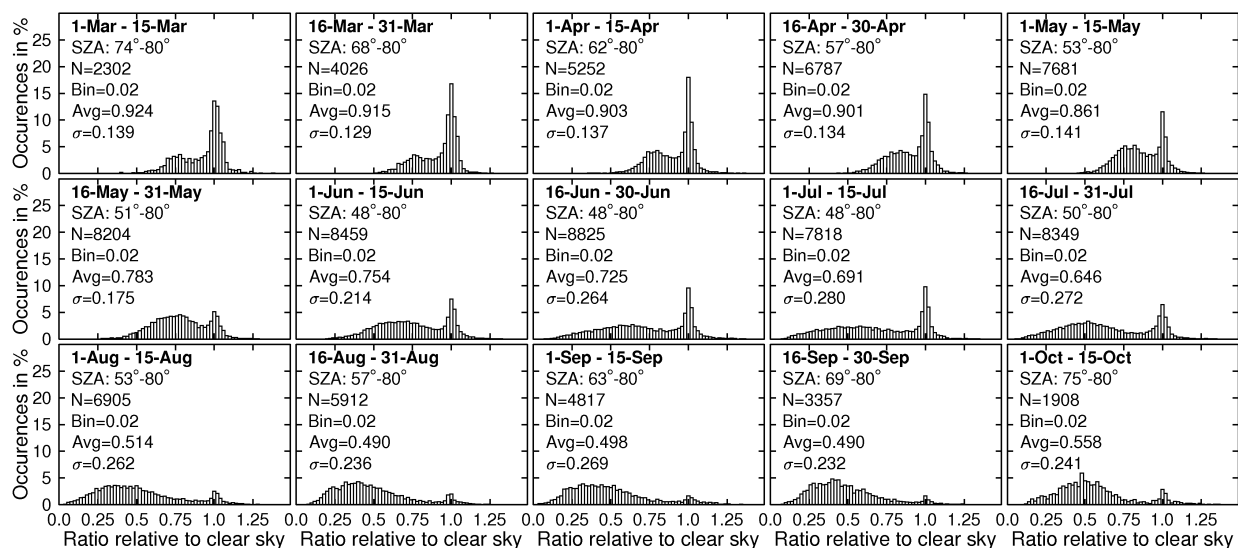


### Distributions of Transmittance: Integral 400 – 600 nm

Figure 1 shows frequency distributions of atmospheric transmittance for spectral irradiance integrated over 400-600 nm. Transmittance is defined as ratio of observed irradiance to the expected clear sky value. Figure 1 was calculated from measurements of the years 1995 – 2005. A similar analysis for the integral 342.5 – 347.5 nm can be found in the main paper. Interpretation given for the 342.5-347.5 nm integral can also be applied to the 400-600 nm integral.



**Figure 1:** Frequency distributions of transmittance defined as the ratio of spectral irradiance integrated over 400-600 nm to the associated clear sky irradiance, calculated from measurements of the years 1995 - 2005. Each of the 15 plots refers to a different two-week period as indicated in the top left corner of each plot. SZA-range, number of data points N, width of the histogram columns (Bin), average (Avg), and standard deviation ( $\sigma$ ) of the distributions are also provided.