Monitoring of UV-B Radiation and Ozone Column in the Republic of Panama

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The Laboratory of Atmospheric Physics of the University of Panama is managing a Radiometric and Meteorological Network with three monitoring sites located at the cities of Panama, David and Santiago. At the sites mentioned before, UV-B radiation levels, total ozone column, global solar radiation, aerosol optical depth and other meteorological parameters have been monitored. UV-B radiation is measured in a continuous way, by means of broad band UV-B meters, model 501 UV-Biometers. Total ozone column as well as aerosol optical depth is measured with ozone meters, model Microtops II. For the monitoring of the rest of atmospheric parameters, Campbell 21 X meteorological stations have been installed. The characterization of UV-B radiation levels as well as total ozone column has been accomplished. At the three monitoring sites, UV-B irradiance and dose show a similar behavior, with a mean maximum during the dry season (highest levels are registered on March) and a secondary maximum on September, during the rainy season.

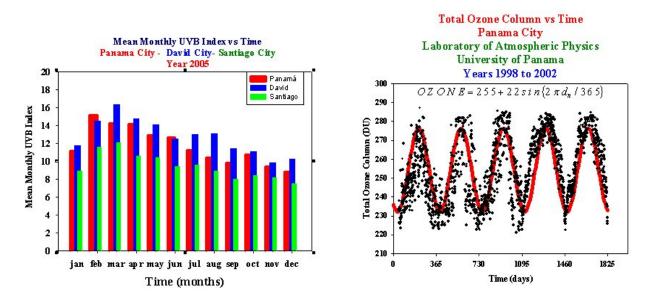


Figure 1. The average total ozone column is 255 DU. The minimum value (231 DU) is registered during the months of December and January. The maximum value (280 DU) is registered during the month of August. Nevertheless, these values lie within the variability margin correspondent to the Panama City latitude. This presentation will emphasize an inter comparison of UV-B radiation levels at the monitoring sites.