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Carbon monoxide and surface ozone measurements at the global GAW station Bukit Koto Tabang, West Sumatra, Indonesia

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Bukit Koto Tabang is a clean air station in a relatively unpopulated area on the west coast of equatorial Sumatra and is part of the Global Atmosphere Watch (GAW) network. The site could be of particular value to climate researchers because the GAW station is co-located with an equatorial atmosphere radar (EAR) and a number of other remote-sensing facilities that characterize the atmosphere above the site up to the magnetosphere. In-situ surface ozone and carbon monoxide concentrations have been measured since 1996 and 2001, respectively. Previous analysis of the early ozone data suggested that the site is representative for the boundary layer of unperturbed forest regions and is influenced by regional biomass burning during parts of the year. Back trajectories based on ECMWF prediction wind fields suggest two predominant transport regimes: long-range transport across the South China Sea (north-easterly winds) and more local circulation from the Indian Ocean. This presentation will focus only the GAW activities at the station and discuss the data obtained so far in terms of representativeness and long-range transport of pollutants.