

## A Review of the Mauna Loa Observatory Radon-222 Database (1997-2002)

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The radon database at the Mauna Loa Observatory, covering the observation period from 1997 to 2002, has been reviewed. A summary of the characteristic features of radon observations in the period is presented for the first time (Figure 1). They include those on diurnal, seasonal, and interannual time scales. Analysis has focused on the subset of data representing long-range transport of air masses across the northern Pacific. Such data are most likely to be used for air mass characterization, tracer-tracer comparisons, and validation of regional and global transport models.

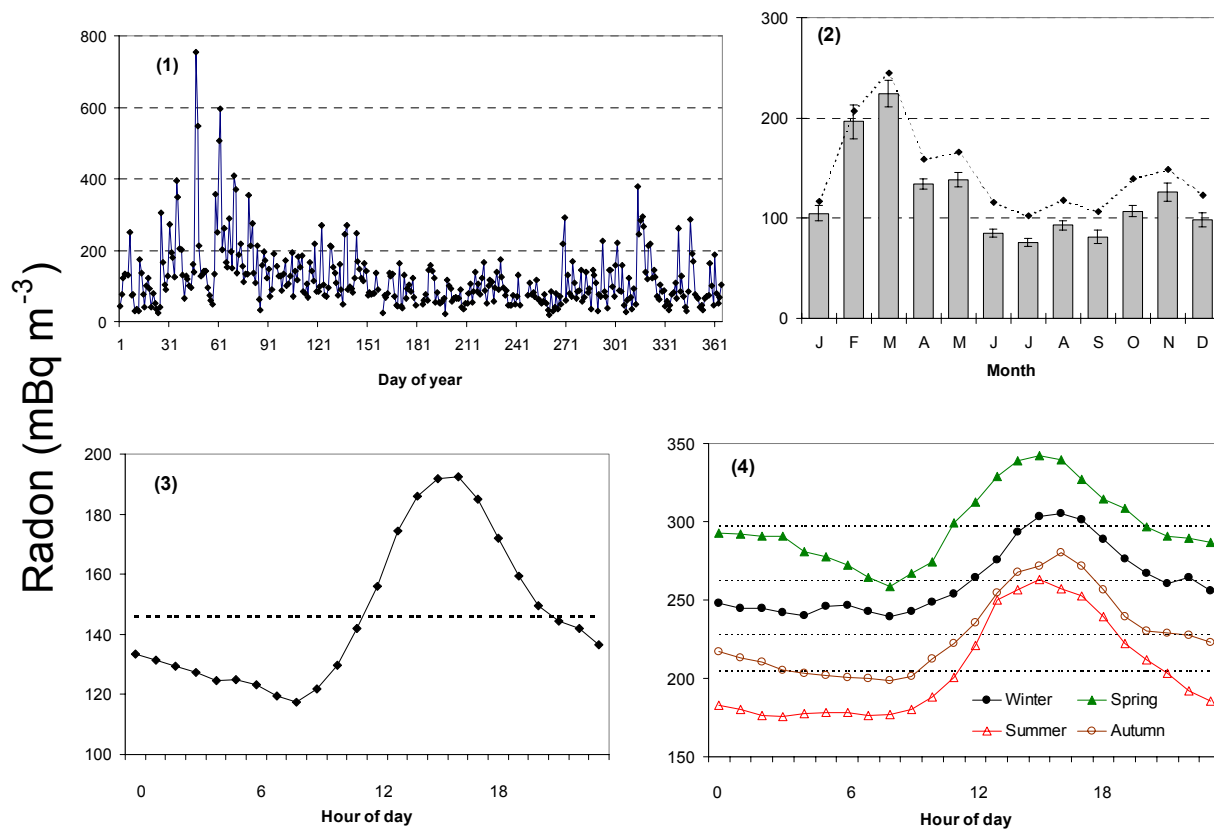


Figure 1. Radon data based on the full set of hourly radon concentrations recorded in 2001, including observations recorded during the Intensive Observation Period of the Asian Pacific Regional Aerosol Characterization Experiment (ACE-Asia), March–May 2001. They show (1) daily minimum radon concentration (calculated as the mean of concentrations at hours 0600, 0700, and 0800 LT) for the year; (2) mean monthly radon based on daily minima (whiskers denote standard error), with the dotted line indicating monthly means based on all observations; (3) diurnal composite of radon concentrations; and (4) diurnal composites of radon concentrations by season. Dotted lines in (3) and (4) represent respective means of the composite day.