

## Decadal Time Series of UV Irradiances at Two NDSC Sites

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The Network for the Detection of Stratospheric Change (NDSC) comprises a small number of well-instrumented unpolluted measurement sites selected to represent large geographical areas. Its aim is to better understand the causes and effects of long-term changes in atmospheric composition. In order to monitor long-term ozone changes and its effects, UV spectrometers were installed at the midlatitude southern hemisphere NDSC site (Lauder, New Zealand) and the tropical NDSC site (Mauna Loa Observatory, Hawaii). At NIWA's Lauder site, measurements began in December 1990; while at NOAA's Mauna Loa Observatory, measurements began in June 1995. Since deployment, data have been obtained with a high success rate. The instrumentation and data processing are similar at both sites and comply with the exacting standards required by the NDSC. We present time series of data products (Figure 1) from these spectrometers (e.g., erythemally-weighted UV irradiance) to compare and contrast the results from each site and to illustrate the causes for variabilities and their influences on validation of radiative transfer models and satellite data products.

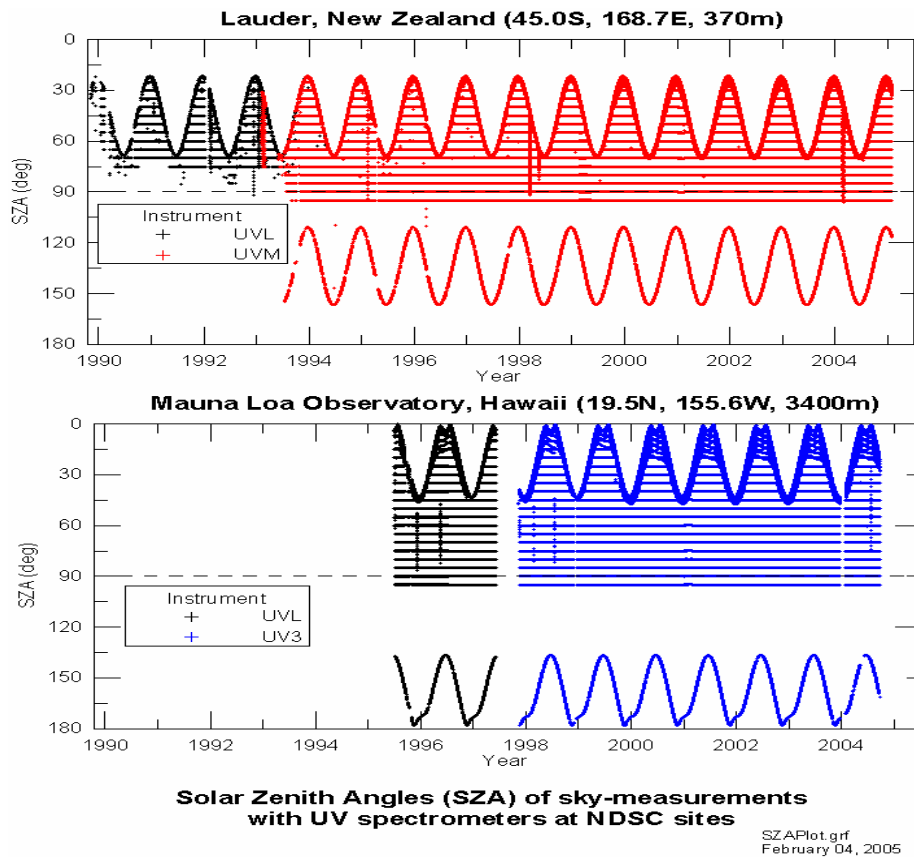


Figure 1. The plot shows the availability of sun and sky observations at the two sites.