

# NDACC Fourier Transform Spectroscopy (FTS) Trace Gas Trends and the Revitalized Mauna Loa Observatory (MLO) FTS System

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The Network for the Detection of Atmospheric Composition Change (NDACC) is a global network comprised of several working groups focused on a particular measurement technique. The Infrared Working Group uses high-resolution, broadband solar viewing interferometers to measure more than 20 species and their isotopes. The remote sensing measurements are of the total column and coarse vertical profiles through the free troposphere and stratosphere. Among the 25 member and affiliated stations (see Figure 1) is the MLO FTS which began in 1991 and is currently undergoing a refurbishment and upgrade. From these sites we present multi-decade trends and model comparisons for several gases of total and partial columns. Figure 2 shows the time series of HCl above MLO and selected model simulations.

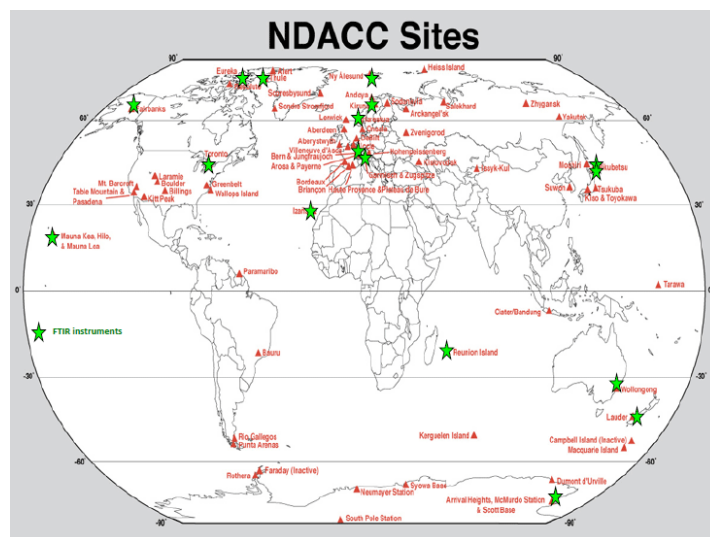


Figure 1. Map of NDACC stations. Locations designated with stars are current FTS sites.

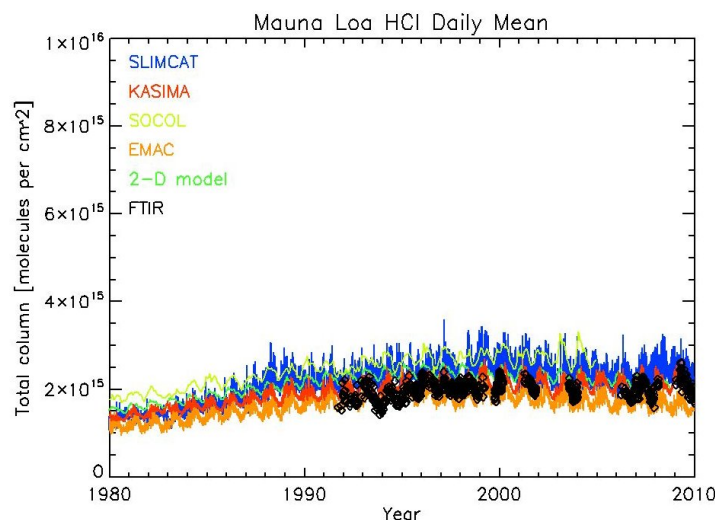


Figure 2. Comparisons of daily average HCl above Mauna Loa between measurements (black diamonds) and several model calculations.