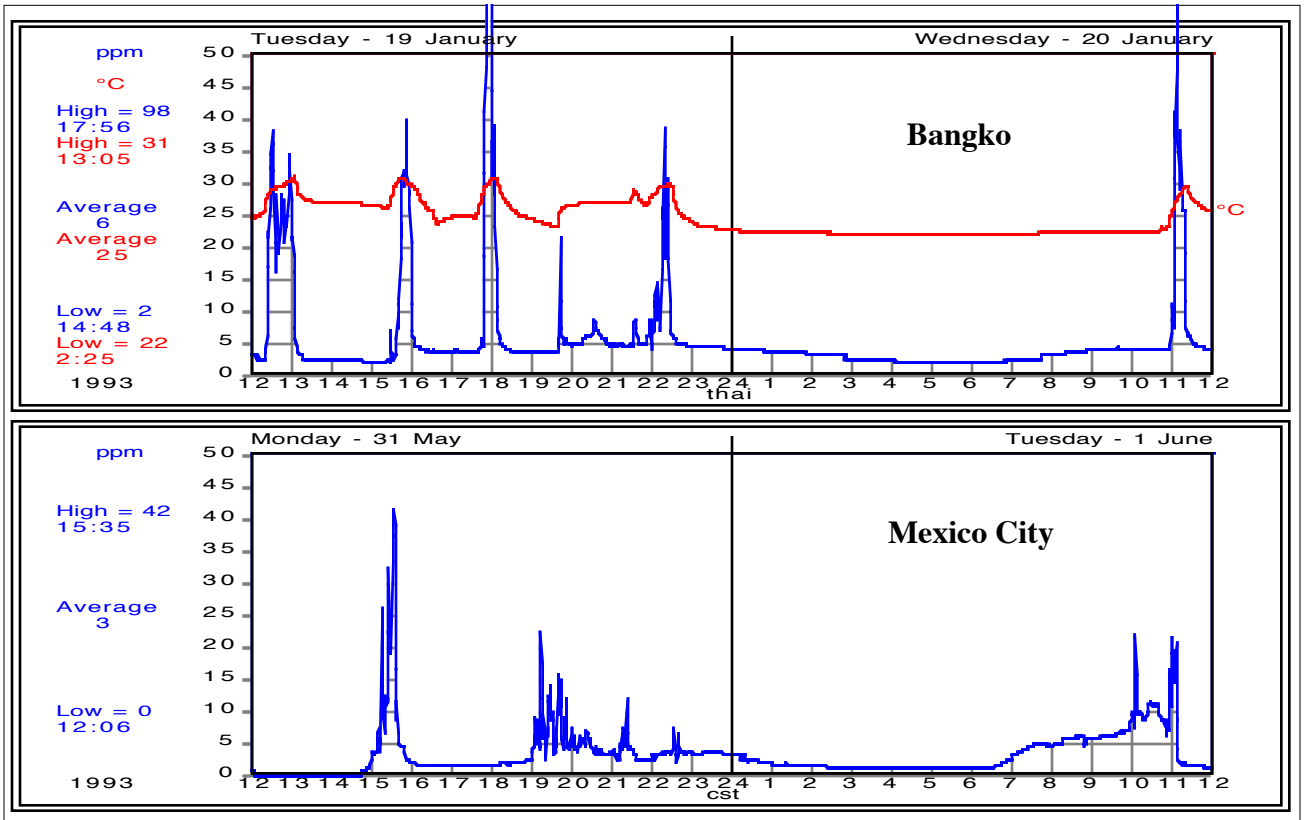
NEWS!



These noon-to-noon plots show carbon monoxide (CO) measurements taken during traffic in two highly polluted major metropolitan areas. To the eye all four days were bright and sunny; while hazy, heavy visual pollution was not evident. Temperature was plotted in Bangkok; Mexico City was about the same.

Big-City-Traffic CO

Bear Facts — #38

Some cities are renown for their traffic (and pollution). These data were gathered on randomly selected dates in two of the most famous: Mexico City and Bangkok. Those who work amongst the vehicles breath it all day!

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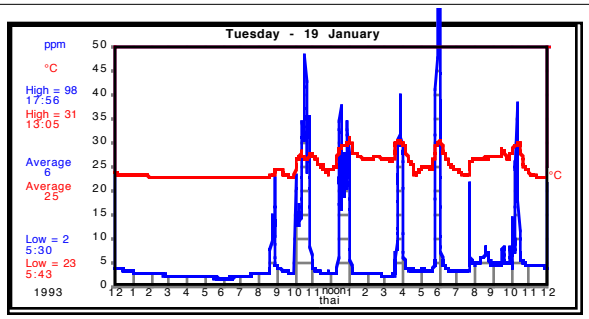
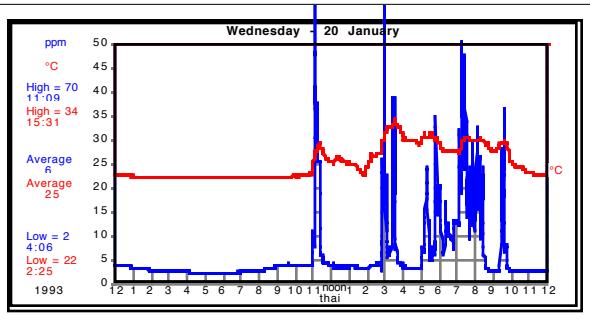
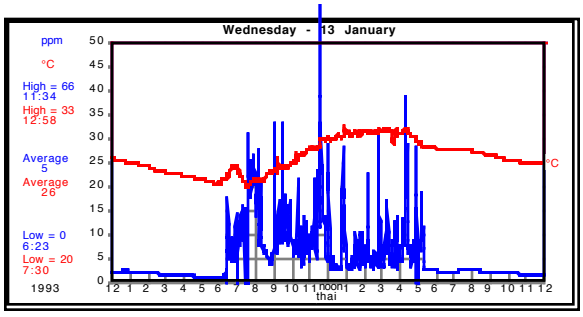
the DataBear

Bear Facts are published to provide useful insights into the operation and applications for the DataBear™ Measurer and associated complete instruments.

Keeping in Touch!





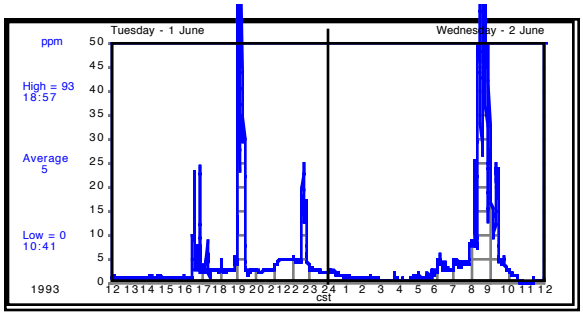


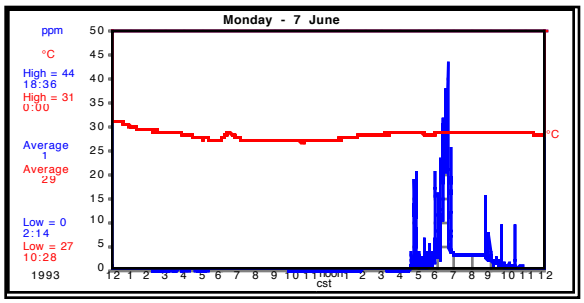
Thaila

Temperature and CO measurements in Bangkok (above) and Lampang (left). While peaks reached nearly 100 ppm CO, hourly averages in Bangkok traffic could result in 23 ppm (10:00 on 19th, 19:00 on 20th). In Lampang, the day's data (left) were gathered by a traffic policeman-- assigned to two separate locations. During the day his hourly exposure was 9.3 ppm; from 11:00 to noon it was 15.5 ppm.

Carbon monoxide results from combustion. The less efficient the combustion, the more poorly tuned the engine, the more CO is created. In the two selected major cities-- Mexico, D. F., Mexico & Bangkok, Thailand-- the streets are teaming with traffic. There is a preponderance of older autos, trucks and other motorized vehicles. Even the newer ones have no pollution controls. These plots show what the CO looks like? The Langan Model L15 CO Personal Exposure Measurer was strapped to the observer's belt and carried throughout several days-- inside and out, in traffic and walking about.

The days in which these data were taken were similar in both cities: warm but comfortable, bright sunshine, good weather, many people out and about and many, many cars. Bangkok had heavier traffic, very voluminous traffic most of the day. During similar weather, smaller cities in Thailand (Lampang) and Mexico (Villahermosa) were visited; data are shown for comparison. To the observer all days were not visually polluted. Of interest, as well, are the overnight levels with morning build-up and those present in various offices, museums and shops (between traffic trips).





CO in Mexico City (upper) and Villa Hermosa (lower, with temperature). Exposure was clearly related to proximity to traffic; a visit to the world-famous Muséo de Antropologia in Chapultepec Park during midday on the 1st, resulted in surprisingly low CO (about 1 ppm for several hours) even though it is adjacent to the Paséo de La Reforma, a busy boulevard. In-traffic hourly levels reached 32 ppm (19:00 on 1st) and (08:00 on 2nd).

Mexico

A trip into Villa Hermosa on the afternoon and evening of 7 June resulted in traffic observations in a town similar in size to Lampang (see above). An hourly average of 13.7 ppm was measured at 18:00. CO levels reaching 20 ppm were also seen as the result of agricultural burning at 16:30 hours.

cut inside dotted line for small size

This Bear Facts shows carbon monoxide measured in two of the most densely traffic-filled cities
The Langan Model L15 CO Personal Exposure Measurer was simply carried during the da
Each plot is a noon-to-noon or midnight-to-midnight 'view' from the Sense-Your-World! Displa