

ARI Mobile Lab Activities

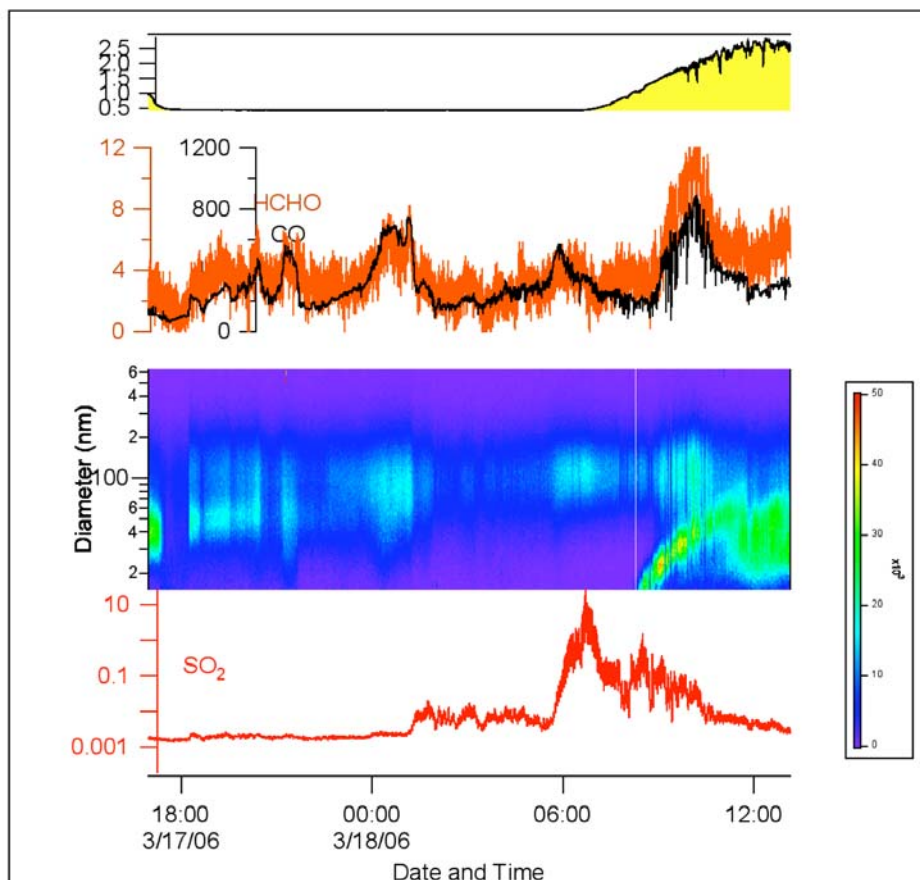
Update March 18: Tres Padres (reported by Scott Herndon)

Ben was right again! The wind was very strong from due south just about all day long.

The quick figure attached shows [on a log scale!] the SO₂ instrument response. Note that the increase is ~10,000 times the previous 'overnight' value. Tim deduced that we were seeing the volcano and Ben has now verified it with Flexpart forward trajectories from Popocatepetl.

Ezra and Scott will look at average spectra tomorrow for a decrease in HONO preceding the massive nucleation event just after the sun came up. This may be among the more remarkable events, in that SO₂ in the dark did little, but once the sun came up things got going.

Our best guess about an OH source (of the things we might be able to see) at that shallow solar zenith angle is HONO photolysis. In the CO plume just before 6, there was substantial NO_x, so if in fact some trapped residual layer and Popo's smoldering effluent were mixing prior to getting to us, the stage was set beautifully for this event.



Update March 19: T1 (reported by Dwight Thornhill)

After a long, arduous task, the Aerodyne Mobile Lab (AML) made it safely down Pico Tres Padres. It is presently located at T1 (Universidad Tecnológica de Tecamac), but unfortunately, there are no power receptacles to enable the AML to be up and running and recording data at this present time. We hope to rectify this problem as soon as possible.