

## Field Study in Mount Waliguan



Ozone, CO, NO<sub>y</sub>, PM<sub>2.5</sub>, NMHCs and Halons were measured in spring and summer 2003 at Mt Waliguan Observatory (3818m asl) to study the ozone chemistry in the pristine Qinghai-Tibetan Plateau and to look into long-range transport of air pollution to western China. In the summer of 2006, NO, NO<sub>2</sub>, PAN, nitric acid, aerosol nitrate, and ammonia were measured to better understand the source and budget of reactive nitrogen compounds. This research was carried out in collaboration with the Chinese Academy of Meteorological Sciences and the Mt Waliguan China Global Baseline Observatory.

The 2003 data showed impact of springtime Siberian biomass burnings on the background air composition over the Tibetan Plateau, the contribution of soil emission to atmospheric reactive nitrogen, and the impact of stratosphere-to-troposphere exchange to the ozone budget in the lower atmosphere (Wang et al., 2006; Ding and Wang, 2006). The data from the 2006 study showed more evident impacts from pollution from the east, and that the concentrations of total reactive nitrogen were lower than those in 2003 (Zhang et al., 2009).

### Related References:

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2. **Wang, T.** \*, H. L. A. Wong, J. Tang, A. Ding, W. S. Wu, and X. C. Zhang. "On the Origin of Surface Ozone and Reactive Nitrogen Observed at a Remote Mountain Site in the Northeastern Qinghai-Tibetan Plateau, Western China." *Journal of Geophysical Research-Atmospheres* 111, no. D8 (Apr 2006): 15. <http://dx.doi.org/10.1029/2005jd006527>.
3. Zhang, J. M., **T. Wang** \*, A. J. Ding, X. H. Zhou, L. K. Xue, C. N. Poon, W. S. Wu, J. Gao, H. C. Zuo, J. M. Chen, X. C. Zhang, and S. J. Fan. "Continuous Measurement of Peroxyacetyl Nitrate (Pan) in Suburban and Remote Areas of Western China." *Atmospheric Environment* 43, no. 2 (Jan 2009): 228-37. <http://dx.doi.org/10.1016/j.atmosenv.2008.09.070>.