

Low-Power Instrumentation for Ozone Data Collection at Remote Sites

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Abstract:

The US Environmental Protection Agency (USEPA) has proposed lowering the 8-hour ozone standard from 75 to 70 ppb, and a new metric, W126, may be used in the future to evaluate ozone effects on vegetation. New continuous data collection requirements may be associated with the new standards, including remote-site monitoring. The US Forest Service, Rocky Mountain Research Station has developed hardware and procedures for deploying low-power ozone analyzers in remote locations. These stand-alone installations are automated, solar-powered, and pack-transportable. In this poster, we describe three versions of the installation with 3- and 4-season capability, ranging in cost from \$7960 to \$14,600. We include some observations of the instrument's operating characteristics, considerations for field deployment. Supplemental materials including engineering diagrams, sample datalogger programs, and parts lists with cost estimates will be available upon publication in late 2013.

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