

## CHEESEHEAD UWEC Chemistry UAS Ozone (O3) Data

### Dataset Author(s) –

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**Time of Interest** - 2019/07/08 12:01:52 to 2019/07/16 12:56:09 Central Daylight Time. The data is not continuous.

**Area of Interest** - 45.5668 to 45.5684; -90.163 to -90.165

**Data Frequency** - Ozone data: 0.1 Hz, Meteorological data (temperature, humidity, pressure) 1 Hz, GPS data from UAS: 10 Hz.

**Data Spatial Type** - All data is given with grid GPS data obtained on each platform. Interference between placement of devices on the UAS means that the UAS GPS is considered the most reliable. Given in text table: latitude, longitude, altitude.

**General Dataset Description** - Four days of UAS flights are given in the files: 2019/07/08, 2019/07/11, 2019/07/12 and 2019/07/16. Ozone in ppb was measured via 2B Technologies POM on a UAS for all 4 days. The POM also gives GPS data but it drops out when placed on UAS. Values of 0 on POM GPS can indicate that the POM was either indoors, inside the instrument container, or on the UAS. Ozone concentrations given are calibrated to a transfer standard. Ground ozone could possibly be extracted from the data when GPS on POM is nonzero. GPS from UAS should be considered the most accurate for latitude, longitude and altitude. Meteorological variables of temperature, humidity, pressure and humidity temperature were measured by iMET sensor on 2019/07/16. GPS data is also given by this device. All three data sets have different data frequencies and start or stop times. Diesel generator exhaust on 2019/07/16 may affect continuous ozone readings on that day.

**File Names** - UWEC\_UAS\_GPS\_20190708.csv; UWEC\_UAS\_GPS\_20190711.csv;  
UWEC\_UAS\_GPS\_20190712.csv UWEC\_UAS\_GPS\_20190716.csv; UWEC\_UAS\_O3.csv;  
UWEC\_UAS\_MET.csv

**Data restrictions** - Dataset does not need to be restricted. Please see the [CHEESEHEAD Data Policy](#).

**GCMD Keywords** - TROPOSPHERIC OZONE, ATMOSPHERIC PRESSURE MEASUREMENTS, SURFACE TEMPERATURE, BOUNDARY LAYER TEMPERATURE, WATER VAPOR INDICATOR, HUMIDITY.