**1. SAVANT/DUSTRACK/preliminary data**

**2. Dataset Author(s)**

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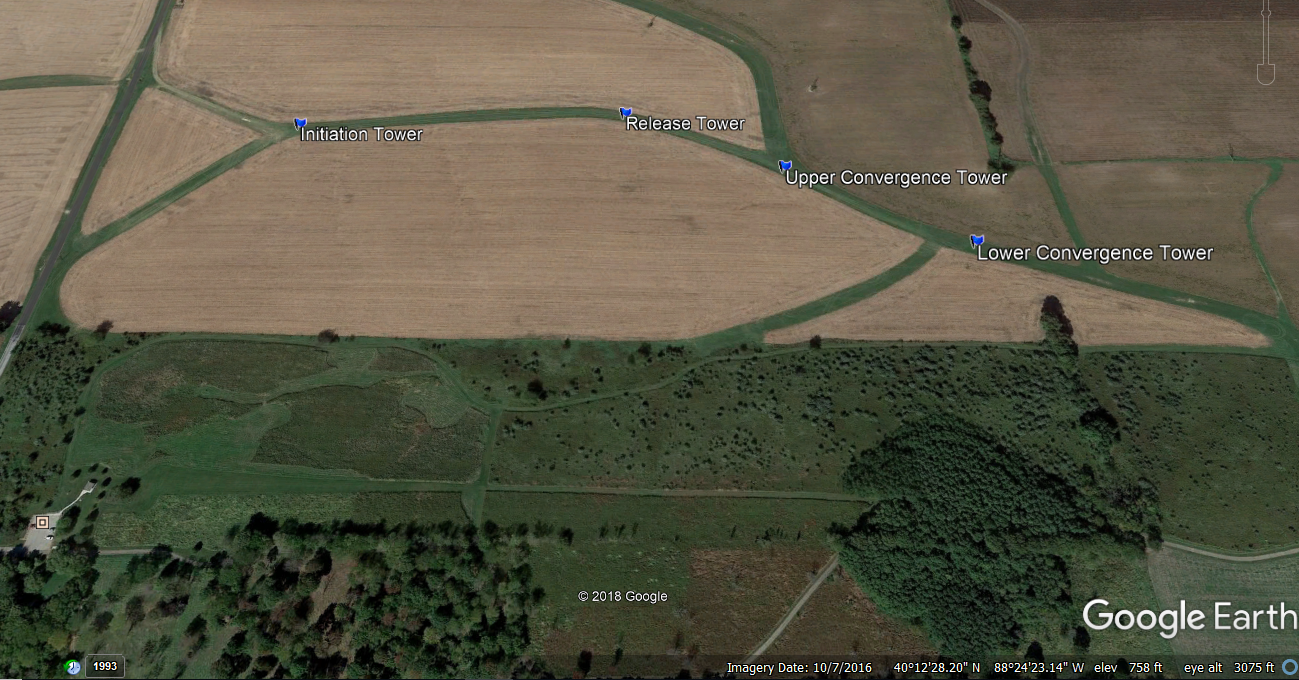
Phone: 803-777-6604

**3. Time of Interest**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | 09/23/2018-09/24/2018 | DT7 (see section 7 descriptions) | 09/23/2018 22:59:11 – 09/24/2018 00:00:42 |  |
|  | 09/29/2018-09/30/2018 | DT2 | 09/30/2018 01:09:25 – 09/30/2018 07:43:50 |  |
| DT4 | 09/29/2018 22:33:01 – 09/30/2018 04:28:31 |  |
| DT6 | 09/29/2018 21:02:11 – 09/30/2018 01:57:56 |  |
| DT7 | 09/29/2018 21:31:48 – 09/30/2018 01:41:25 |  |
| DT10 | 09/29/2018 21:02:00 – 09/30/2018 02:10:09 |  |
|  | 10/12/2018-10/13/2018 | DT3 | 10/12/2018 00:11:30 – 10/12/2018 00:22:56 |  |
| 10/12/2018 00:24:57 – 10/12/2018 07:31:26 |  |
| DT5 | 10/11/2018 23:28:44 – 10/12/2018 08:25:00 |  |
| DT6 | 10/12/2018 01:51:38 – 10/12/2018 07:22:03 |  |
| DT7 | 10/12/2018 00:44:21 – 10/12/2018 07:14:11 |  |
| DT8 | 10/11/2018 23:44:58 – 10/12/2018 07:46:07 |  |
| DT9 | 10/12/2018 00:28:06 – 10/12/2018 07:25:46 |  |
| DT10 | 10/12/2018 00:00:35 – 10/12/2018 07:08:59 |  |
|  | 10/15/2018-10/16/2018 | DT2 | 10/15/2018 22:52:39 – 10/15/2018 22:08:38 |  |
| 10/16/2018 01:54:44 – 10/16/2018 06:57:09 |  |
| DT3 | 10/15/2018 22:38:35 – 10/15/2018 22:54:46 |  |
| 10/16/2018 01:57:20 – 10/16/2018 06:59:45 |  |
| DT5 | 10/15/2018 22:07:28 – 10/16/2018 07:05:46 |  |
| DT6 | 10/15/2018 22:27:03 – 10/16/2018 06:49:47 | Add time in excel data |
| DT7 | 10/15/2018 22:17:51 – 10/16/2018 06:38:26 | Add time in excel data |
| DT8 | 10/15/2018 22:38:59 – 10/15/2018 22:58:11 | Add time in excel data |
| 10/15/2018 22:59:54 – 10/16/2018 07:00:44 |
| DT9 | 10/16/2018 02:20:50 – 10/16/2018 07:14:58 |  |
| DT10 | 10/15/2018 22:55:21 – 10/15/2018 23:12:38 | Add time in excel data |
| 10/15/2018 23:15:31 – 10/16/2018 06:56:08 |
|  | 10/17/2018-10/18/2018 | DT2 | 10/17/2018 23:43:15 – 10/18/2018 07:37:45 |  |
| DT3 | 10/17/2018 23:48:47 – 10/17/2018 23:53:41 |  |
| 10/18/2018 02:03:49 – 10/18/2018 07:27:07 |  |
| DT5 | 10/18/2018 00:16:55 – 10/18/2018 08:04:07 |  |
| DT6 | 10/17/2018 23:23:46 – 10/18/2018 07:22:55 |  |
| DT7 | 10/17/2018 23:25:42 – 10/18/2018 07:20:37 | Add time in excel data |
| DT8 | 10/17/2018 23:42:59 – 10/18/2018 07:39:19 | Add time in excel data |
| DT9 | 10/17/2018 23:54:32 – 10/17/2018 23:54:32 | Data cannot be used |
| DT10 | 10/17/2018 23:48:51 – 10/18/2018 07:23:34 | Add time in excel data |
|  | 10/23/2018-10/24/2018 | DT2 | 10/23/2018 22:15:30 – 10/24/2018 07:08:45 |  |
| DT3 | 10/23/2018 22:38:40 – 10/23/2018 23:33:15 |  |
| 10/23/2018 23:37:03 – 10/24/2018 00:17:19 |  |
| 10/24/2018 00:19:27 – 10/24/2018 07:37:17 |  |
| DT5 | 10/23/2018 21:26:17 – 10/24/2018 07:33:51 |  |
| DT6 | 10/23/2018 21:47:50 – 10/24/2018 07:49:42 | Add time in excel data |
| DT7 | 10/23/2018 22:07:37 – 10/24/2018 07:08:23 | Add time in excel data |
| DT8 | 10/23/2018 22:32:24 – 10/24/2018 08:16:29 | Add time in excel data |
| DT9 | 10/23/2018 22:22:11 – 10/24/2018 08:24:01 | Add time in excel data |
| DT10 | 10/23/2018 22:44:07 – 10/24/2018 07:53:57 |  |
|  | 10/27/2018 | DT2 | 10/27/2018 22:38:40 – 10/27/2018 23:27:19 |  |
| DT3 | 10/27/2018 22:41:51 – 10/27/2018 23:10:28 |  |
| DT5 | 10/27/2018 18:27:49 – 10/28/2018 00:08:38 |  |
| DT6 | 10/27/2018 19:04:13 – 10/27/2018 23:39:36 |  |
| DT7 | 10/27/2018 18:54:36 – 10/27/2018 23:52:18 |  |
| DT8 | 10/27/2018 18:47:09 – 10/27/2018 23:26:39 |  |
| DT9 | 10/27/2018 18:55:48 – 10/27/2018 23:08:28 |  |
| DT10 | 10/27/2018 18:58:49 – 10/27/2018 23:11:56 |  |
|  | 10/29/2018-10/30/2018 | DT2 | 10/29/2018 17:35:07 – 10/30/2018 01:08:55 | data in excel has been adjusted |
| DT3 | 10/29/2018 17:57:33 – 10/29/2018 18:59:51 | data in excel has been adjusted |
| 10/29/2018 19:04:58 – 10/30/2018 01:06:33 |
| DT5 | 10/29/2018 17:15:54 – 10/30/2018 01:28:01 |  |
| DT6 | 10/29/2018 17:45:34 – 10/30/2018 01:13:33 | Add time in excel data |
| DT7 | 10/29/2018 17:42:58 – 10/30/2018 01:13:16 |  |
| DT8 | 10/29/2018 17:36:16 – 10/30/2018 01:09:05 |  |
| DT9 | 10/29/2018 17:57:04 – 10/30/2018 01:06:18 |  |
| DT10 | 10/29/2018 17:57:32 – 10/30/2018 01:05:42 |  |
|  | 11/02/2018-11/03/2018 | DT2 | 11/02/2018 16:58:03 – 11/02/2018 18:37:12 |  |
| 11/03/2018 03:30:04 – 11/03/2018 07:51:20 |  |
| DT3 | 11/02/2018 17:28:07 – 11/02/2018 18:31:37 |  |
| 11/03/2018 03:27:29 – 11/03/2018 07:47:01 |  |
| DT5 | 11/02/2018 16:38:14 – 11/03/2018 07:59:48 |  |
| DT6 | 11/02/2018 17:07:32 – 11/03/2018 07:18:33 | Add time in excel data |
| DT7 | 11/02/2018 17:07:45 – 11/03/2018 07:18:24 | Add time in excel data |
| DT8 | 11/02/2018 17:15:18 – 11/03/2018 07:51:19 |  |
| DT9 | 11/02/2018 17:32:12 – 11/02/2018 18:56:25 |  |
| 11/02/2018 18:57:59 – 11/03/2018 07:46:55 |  |
| DT10 | 11/02/2018 17:24:35 – 11/03/2018 07:46:57 | Add time in excel data |
|  | 11/07/2018-11/08/2018 | DT2 | 11/07/2018 20:41:48 – 11/07/2018 23:54:26 | data in excel has been adjusted |
| DT3 | 11/07/2018 20:55:11 – 11/07/2018 23:56:51 |  |
| DT5 | 11/07/2018 20:32:13 – 11/08/2018 00:11:23 |  |
| DT6 | 11/07/2018 21:06:45 – 11/07/2018 23:45:05 | data in excel has been adjusted |
| DT7 | 11/07/2018 21:07:29 – 11/07/2018 23:44:59 | data in excel has been adjusted |
| DT8 | 11/07/2018 20:44:08 – 11/07/2018 23:54:54 | data in excel has been adjusted |
| DT9 | 11/07/2018 20:49:42 – 11/07/2018 23:57:13 |  |
| DT10 | 11/07/2018 20:52:52 – 11/07/2018 23:57:13 |  |
|  | 11/10/2018 | DT2 | 11/10/2018 17:15:59 – 11/10/2018 20:26:24 |  |
| DT3 | 11/10/2018 17:22:11 – 11/10/2018 20:10:02 |  |
| DT5 | 11/10/2018 16:40:10 – 11/10/2018 20:56:46 |  |
| DT6 | 11/10/2018 16:59:59 – 11/10/2018 20:36:21 |  |
| DT7 | 11/10/2018 16:54:54 – 11/10/2018 20:36:54 | Has only excel data |
| DT8 | 11/10/2018 17:13:54 – 11/10/2018 20:27:34 |  |
| DT9 | 11/10/2018 17:30:27 – 11/10/2018 20:18:50 |  |
| DT10 | 11/10/2018 17:27:51 – 11/10/2018 20:11:02 |  |
|  | 11/11/2018-11/12/2018 | DT2 | 11/11/2018 19:34:53 – 11/11/2018 23:18:22 |  |
| DT3 | 11/11/2018 19:24:36 – 11/12/2018 01:15:21 |  |
| DT5 | 11/11/2018 18:16:02 – 11/12/2018 01:35:29 |  |
| DT6 | 11/11/2018 18:57:30 – 11/12/2018 01:15:15 |  |
| DT7 | 11/11/2018 18:55:43 – 11/12/2018 01:15:19 |  |
| DT8 | 11/11/2018 18:28:04 – 11/12/2018 01:18:54 |  |
| DT9 | 11/11/2018 18:42:42 – 11/12/2018 01:15:09 |  |
| DT10 | 11/11/2018 18:43:56 – 11/12/2018 01:15:05 |  |
|  | 11/13/2018-11/14/2018 | DT2 | 11/13/2018 23:57:58 – 11/14/2018 08:03:51 |  |
| DT3 | 11/14/2018 00:24:31 – 11/14/2018 08:01:17 |  |
| DT5 | 11/13/2018 23:16:38 – 11/14/2018 12:49:58 |  |
| DT6 | 11/13/2018 23:34:18 – 11/14/2018 13:30:33 |  |
| DT7 | 11/13/2018 23:36:27 – 11/14/2018 13:15:33 |  |
| DT8 | 11/13/2018 23:56:35 – 11/14/2018 08:12:35 |  |
| DT9 | 11/14/2018 00:23:21 – 11/14/2018 13:58:32 |  |
| DT10 | 11/14/2018 00:21:53 – 11/14/2018 13:58:10 |  |

**4. Area of Interest**

The experiments location is on: Crowley Rd Mahomet Township, IL 61853



Initiation Tower: 40°12'41.46"N, 88°24'37.99"W

Release Tower: 40°12'42.04"N, 88°24'25.52"W

Upper Convergence Tower: 40°12'39.78"N, 88°24'19.61"W

Lower Convergence Tower: 40°12'36.91"N, 88°24'13.26"W

**Dustrak8530, 8520, OPC Setup Map (10/11/2018-10/12/2018)**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Height | Initiation Tower | Release Tower | Upper Convergence Tower | Lower Convergence Tower |
| 6.0 m |  |  |  | DT9 8530 |
| 3.0 m | DT5 – 8530 (see section 7 for instrument descriptions) | OPC1 | DT8 -8530 | OPC2 |
| 1.5 m |  | DT7 –8530 |  | DT10 – 8530 |
| 0.5 m |  |  |  |  |
| 0.0 m |  | DT6 8530  DT3 8520 |  | DT2 8520 (no data recorded) |

**Dustrak8530, 8520, OPC Setup Map (10/15/2018-10/16/2018)**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Height | Initiation Tower | Release Tower | Upper Convergence Tower | Lower Convergence Tower |
| 6.0 m |  |  |  | DT9 8530 |
| 3.0 m | DT5 – 8530 | OPC1 | DT8 -8530 | OPC2 |
| 1.5 m |  | DT7 –8530 |  | DT10 – 8530 |
| 0.5 m |  |  |  |  |
| 0.0 m |  | DT6 8530 | DT3 8520 | DT2 8520 |

**Dustrak8530, 8520, OPC Setup Map (10/17/2018-10/18/2018)**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Height | Initiation Tower | Release Tower | Upper Convergence Tower | Lower Convergence Tower |
| 6.0 m |  |  |  | DT9- 8530(no data recorded) |
| 3.0 m | DT5 – 8530 | OPC1 | DT8 -8530 | OPC2 |
| 1.5 m |  | DT7 –8530 |  | DT10 – 8530 |
| 0.5 m |  |  |  |  |
| 0.0 m |  | DT6 8530 at 0.4 m Smoker | DT2-8520 | DT3-8520 |

**Dustrak8530, 8520, OPC Setup Map (10/23/2018-10/24/2018, 10/27/2018, 10/29/2018-10/30/2018,)**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Height | Initiation Tower | Release Tower | Upper Convergence Tower | Lower Convergence Tower |
| 6.0 m |  |  |  | DT9- 8530 |
| 3.0 m | DT5 – 8530 | OPC1 | DT8 -8530 | OPC2 |
| 1.5 m |  | DT7 –8530 |  | DT10 – 8530 |
| 0.5 m |  |  |  |  |
| 0.0 m |  | DT6 8530 at 0.4 m Smoker | DT2-8520 | DT3-8520 |

**Dustrak8530, 8520, OPC Setup Map (11/2/2018-11/3/2018, 11/7/2018-11/8/2018, 11/10/2018, 11/11/2018-11/12/2018, 11/13/2018-11/14/2018)**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Height | Initiation Tower | Release Tower | Upper Convergence Tower | | Lower Convergence Tower |
| 6.0 m |  |  |  |  | DT9- 8530 |
| 3.0 m | DT5 – 8530 | OPC 1 | DT8 -8530 |  | OPC 2 |
| 1.5 m |  | DT7 –8530 |  |  | DT10 – 8530 |
| 0.5 m |  |  |  |  |  |
| 0.0 m |  | DT6- 8530 | DT2-8520 |  | DT3-8520 |

**5. Data Frequency**

Log Interval (mm:ss): 00:01

**6. Data Spatial Type**

ASCII Data File

Scalar data.

**7. General Dataset Description**

The samplers were set up on four towers: Initiation tower, Release tower, Upper Convergence Tower, and Lower Convergence Tower which can be seen on the Dustrak8530, 8520, OPC Setup Maps.

The Dustrack and OPC samplers measured 1-second PM total data and particle size distribution respectively.

The dataset includes the Dustrack data on experiment date of 09/23/2018-09/24/2018, 09/29/2018-09/30/2018, 10/12/2018-10/13/2018, 10/15/2018-10/16/2018, 10/17/2018-10/18/2018, 10/23/2018-10/24/2018, 10/27/2018, 10/29/2018-10/30/2018, 11/02/2018-11/03/2018, 11/07/2018-11/08/2018, 11/10/2018, 11/11/2018-11/12/2018, and 11/13/2018-11/14/2018 in excel documents converted by ASCII format.

All the Dustrak data of the same day are combined in one excel document each date for easy observing.

**Instrument Description:**

DT2

TrakPro Version 4.70 ASCII Data File

Model: DustTrak II

Model Number: 8520

Serial Number: 85202400

Statistics, Channel: AEROSOL

Units: mg/m^3

Calibration, Sensor: AEROSOL

Cal. date, 12/11/2017

DT3

TrakPro Version 4.70 ASCII Data File

Model: Dust Trak

Model Number: 8520

Serial Number: 85202401

Statistics,Channel: Aerosol

Units: mg/m^3

Calibration, Sensor: Aerosol

Cal. date, 12/11/2017

DT4

TrakPro Version 4.70 ASCII Data File

Model: Dust Trak

Model Number: 8520

Serial Number: 85202403

Statistics,Channel: Aerosol

Units: mg/m^3

Calibration, Sensor: Aerosol

Cal. date, 06/26/2018

DT5

TrakPro Version 4.70 ASCII Data File

Model: Dust Trak

Model Number: 8530

Serial Number: 8530183103

Statistics,Channel: Aerosol

Units: mg/m^3

Calibration, Sensor: Aerosol

Cal. date, 10/12/2018

DT6

TrakPro Version 4.70 ASCII Data File

Model: Dust Trak

Model Number: 8530

Serial Number: 8530105323

Statistics,Channel: Aerosol

Units: mg/m^3

Calibration, Sensor: Aerosol

Cal. date, 05/16/2018

DT7

TrakPro Version 4.70 ASCII Data File

Model: Dust Trak

Model Number: 8530

Serial Number: 8530105322

Statistics,Channel: Aerosol

Units: mg/m^3

Calibration, Sensor: Aerosol

Cal. date, 05/16/2018

DT8

TrakPro Version 4.70 ASCII Data File

Model: Dust Trak

Model Number: 8530

Serial Number: 8530105324

Statistics,Channel: Aerosol

Units: mg/m^3

Calibration, Sensor: Aerosol

Cal. date, 05/17/2018

DT9

TrakPro Version 4.70 ASCII Data File

Model: Dust Trak

Model Number: 8530

Serial Number: 8530181707

Statistics,Channel: Aerosol

Units: mg/m^3

Calibration, Sensor: Aerosol

Cal. date, 04/25/2018

DT10

TrakPro Version 3.70 ASCII Data File

Model: Dust Trak

Model Number: 8530

Serial Number: 8531105301

Statistics,Channel: Aerosol

Units: mg/m^3

Calibration, Sensor: Aerosol

Cal. date, 5/16/2018

**8. File Names**

- List names of files transferred.

Dustrack Dataset+Readme+file5-12-19, Dustrack preliminary data-in excel/ DT-combined 09232018-09242018, DT-combined 09292018-09302018, DT-combined 10122018-10132018, DT-combined 10152018-10162018, DT-combined DT-combined 10172018-10182018, DT-combined 10232018-10242018, DT-combined 10272018, DT-combined 10292018-10302018, DT-combined 11022018-11032018, DT-combined 11072018-11082018, DT-combined 11102018, DT-combined 11112018-11122018, DT-combined 11132018-11142018.

Notes: DT-Dustrack, Date: mmddyyyy (some experiments across two days), combined means all the Dustrack data in certain time period are combined in one excel document.

**9. Data restrictions**

Dataset needs to be restricted.

**10. Digital Object Identifier (DOI)**

We would like for NCAR/EOL to generate a DOI for our dataset.

**11. GCMD Keywords**

Category: EARTH SCIENCE SERVICES

Topic: ENVIRONMENTAL ADVISORIES

Term: WEATHER/CLIMATE ADVISORIES

Variable\_Level\_1: DUST/ASH ADVISORIESs

UUID: 8f7c2388-24e4-4f90-a833-6dc166693879