

Metadata for Rivas et al. HYSPLIT Trajectories

Table 1. Metadata associated with HYSPLIT trajectories created to track dust event paths and source areas.

Title of dataset	HYSPLIT Model Data for dust events
URL of dataset	datarepo.bioinformatics.utep.edu/ getdata?acc=ACIEJDV41U1ZN5I
Abstract	Back trajectories of wind events for dustfall samples collected at UTEP. These were calculated using the NOAA HYSPLIT model (http://ready.arl.noaa.gov/hypub-bin/trajtype.pl?runtype=archive). These results allowed us to track possible source areas of dust events.
Keywords	HYSPLIT, Back trajectories, wind direction
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Organization associated with the data	University of Texas at El Paso- for author. NOAA HYSPLIT- (Draxler and Rolph 2003). http://ready.arl.noaa.gov/hypub-bin/trajtype.pl?runtype=archive
Usage Rights	publicly available and free to use
Geographic region	Region included Southwestern United States and Mexico
Geographic coverage	Back trajectories were run using the starting coordinates: 31.768720, -106.504066
Temporal coverage - Begin date	4/17/13
Temporal coverage - End date	3/22/16
--General study design	24 hours Back trajectory HYSPLIT outputs were generated from the geographic coordinates of UTEP's Biology roof top where dust collectors were located. The purpose of using this model was to determine the transport pathway and possible source area of the dust.
Methods description	Using NOAA's web based HYSPLIT program dust event dates were entered into the HYSPLIT model into the along with the collection coordinates. Default parameters were set and GIS outputs were selected.
Laboratory, field, or other analytical methods	After the collection site coordinates were inputted into the program, backward trajectory was selected and event dates were entered one at a time. Heights of 500 meters above ground level and total time of 24 hours was then selected. Default

	parameters were selected and PDF and GIS outputs were requested. Using the ArcGIS program, HYSPLIT outputs were uploaded and trajectory plots were generated per event date
Quality control	The same parameters were used for each trajectory run with the exception of the start date and time. Start time was determined by looking at PM 10 concentrations using the Texas Commission on Environmental Quality's site.

Table 2. Job numbers associated with dust events and time of peak dust occurrence.

Column name	Definition	Units
Job Number (see below)	Output identifier number assigned per HYSPLIT trajectory and time of dust event.	N/A
192170	Dust event date 3/27/14, event time: 1400 hrs.	N/A
192259	Dust event date 4/3/14, event time: 1500 hrs.	N/A
192295	Dust event date 4/17/13, event time: 1300 hrs.	N/A
192310	Dust event date 4/18/14, event time 1700 hrs.	N/A
192323	Dust event date 5/7/14, event time 1500 hrs.	N/A
192344	Dust event date 12/25/14, event time 1800 hrs.	N/A
192368	Dust event date 1/25/15, event time 1900 hrs.	N/A
192374	Dust event date 2/5/15, event time 2100 hrs.	N/A
192384	Dust event date 5/14/15, event time 1400 hrs.	N/A
192391	Dust event date 4/27/15, event time 1400 hrs.	N/A
192403	Dust event date 5/11/14, event time 1300 hrs.	N/A
192419	Dust event date 11/16/15, event time 1400 hrs.	N/A
192431	Dust event date 3/22/16, event time 1700 hrs.	N/A