

# StrewnLAB Bulletin — Alice Springs, Australia

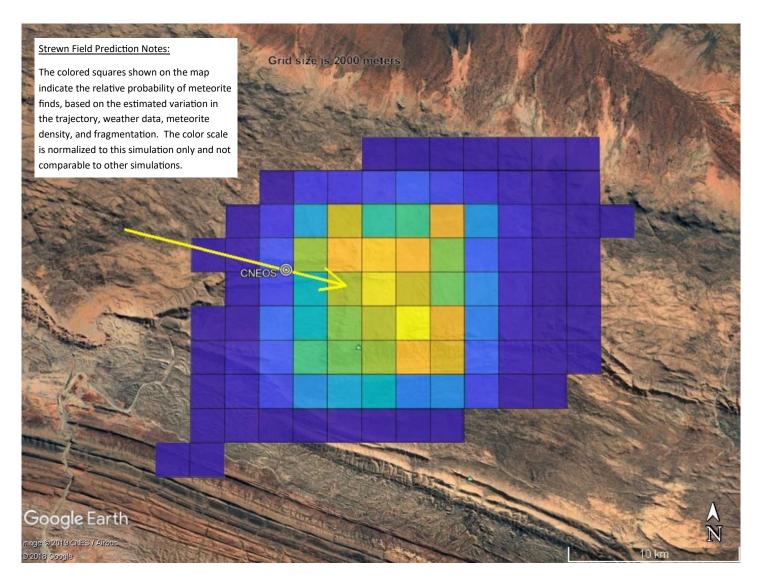
Version 1.0 | December 30, 2019 16:00 UTC

#### **Trajectory Data:**

Date/Time UTC	05/19/2019 14:47:03	
Local Date/Time (+9.5)	09/20/2019 12:17:03 AM	
Reference Location	23.6°S 132.8°E	
Reference Altitude	33.3 ± 0.5 km	
Estimated Energy/Mass	0.11 kt / 3984 kg	
Bearing (Heading)	103.66° ± 3° East	
Incidence Angle	11.47° ± 3° from vertical	
Entry Speed	15.2 ± 0.5 km/s	

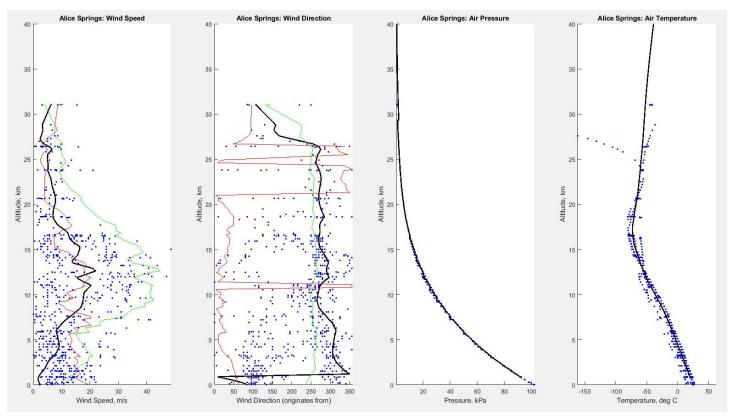
#### **Strewn Field Prediction Data:**

Simulation Engineer	Jim Goodall	
Trajectory Data Source	CNEOS NTPFES Tennant Creek Traffic Cam	
Weather Data Source	IGRA Weather Balloon Data	
Simulation Type	Monte Carlo, Unknown Meteoroid	
Simulation Data Count	1,454 scenarios / 982,364 fragments	



### **Weather Data Summary:**

Windspeed variation included: 1.50



## **Version Log:**

Date	Version	Change Notes	Author(s)
12/19/2019	1	Original version based on CNEOS trajectory and validated against video footage. Clouds in the video prevent a precise location from being known. Due to the direction and uncertainty in the wind speed, the shape and light/heavy direction of the strewn field is unknown. The strewn field could be very small, but the search area is large, due to uncertainty in the event location.	Jim Goodall

### **References:**

CNEOS: Center for Near Earth Object Studies. c2019. St Paul (MN): Jet Propulsion Laboratory, California Institute of Technology; [accessed 2019 July 3]. <a href="https://cneos.jpl.nasa.gov/fireballs/">https://cneos.jpl.nasa.gov/fireballs/</a>.

IGRA Radiosonde Database. c2019. National Centers for Environment Information, National Oceanic and Atmostspheric Administration. <a href="https://www.ncdc.noaa.gov/data-access/weather-balloon/integrated-global-radiosonde-archive">https://www.ncdc.noaa.gov/data-access/weather-balloon/integrated-global-radiosonde-archive</a>.

Northern Territory Police Fire and Emergency Services [NTPFES]. (2019, May 20). Whoa! CCTV footage captured the moment Alice Springs and Tennant Creek were lit up by a passing meteor overnight. #ntpfes. VIDEO: <a href="https://twitter.com/ntpfes/">https://twitter.com/ntpfes/</a> Copyright © 2019 Strewnify.com, Hartland, Michigan, USA +1 586 709 5888. All rights reserved.

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