



Meteor Event Bulletin — Flensburg, Germany

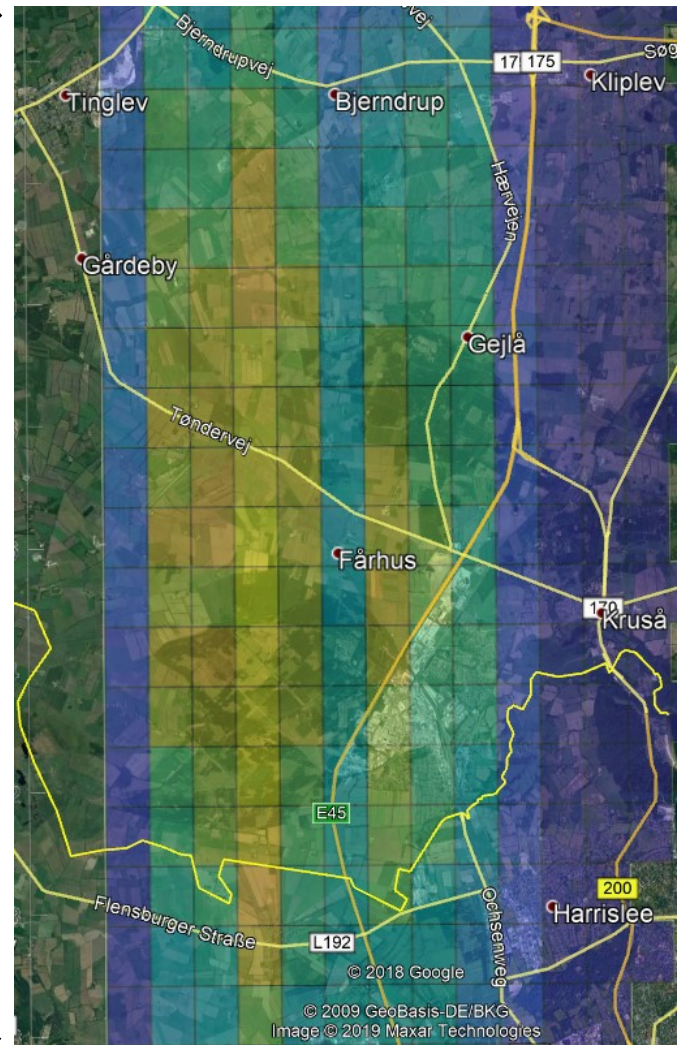
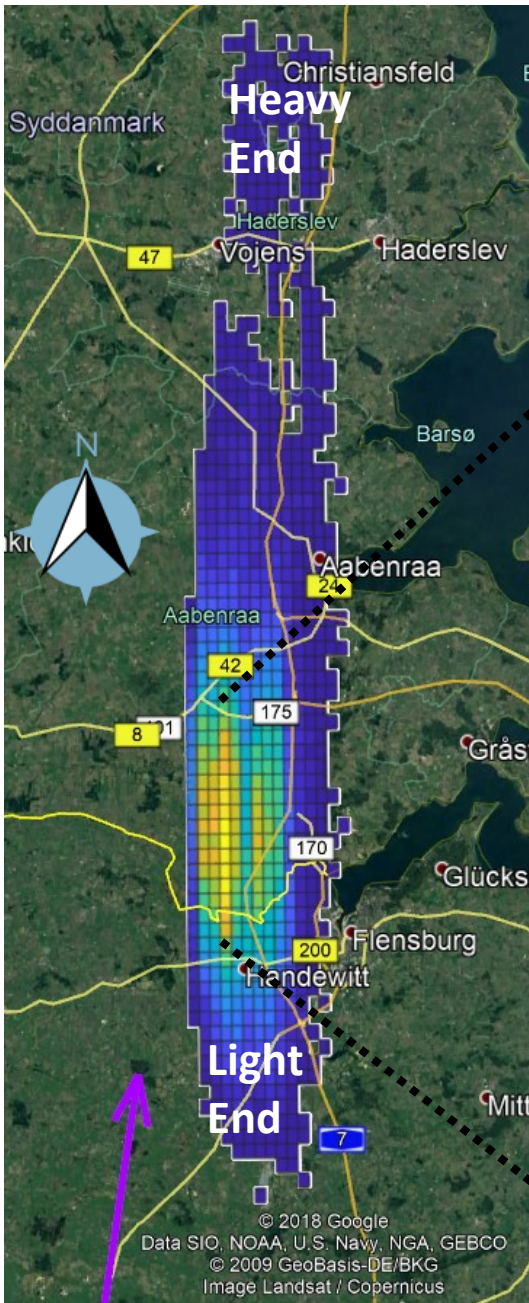
Version 2.2: September 21, 2019 04:53 UTC

Trajectory Data:

Date/Time UTC	09/12/2019 12:49:48
Local Date/Time (+2.0)	09/12/2019 2:49:48 PM
Reference Location	54.50°N 9.15°E
Reference Altitude	42 km
Estimated Energy/Mass	0.48 kt / 12000 kg
Bearing (Heading)	8.487° North
Incidence Angle	66.39° from vertical

Strewn Field Prediction Data:

Simulation Date/Time UTC	09/12/2019 12:49:48
Simulation Engineer	Jim Goodall
Trajectory Data Source	CNEOS* Marchal v. Video Holger Scheele Video Jörg Strunk Video Marknesse Video
Weather Data Source	IGRA Weather Balloon Data
Simulation Type	Monte Carlo, Unknown Meteoroid
Simulation Data Count	204 scenarios / 100,334 fragments



Strewn Field Prediction Notes: The colored squares shown on the map indicate the relative probability of meteorite finds, based on the estimated variation in the trajectory, weather data, meteorite density, and fragmentation. The color scale is normalized to this simulation only and not comparable to other simulations.

* CNEOS is a military sensor network with classified specifications and uncertain accuracy. Strewn field confidence is low.

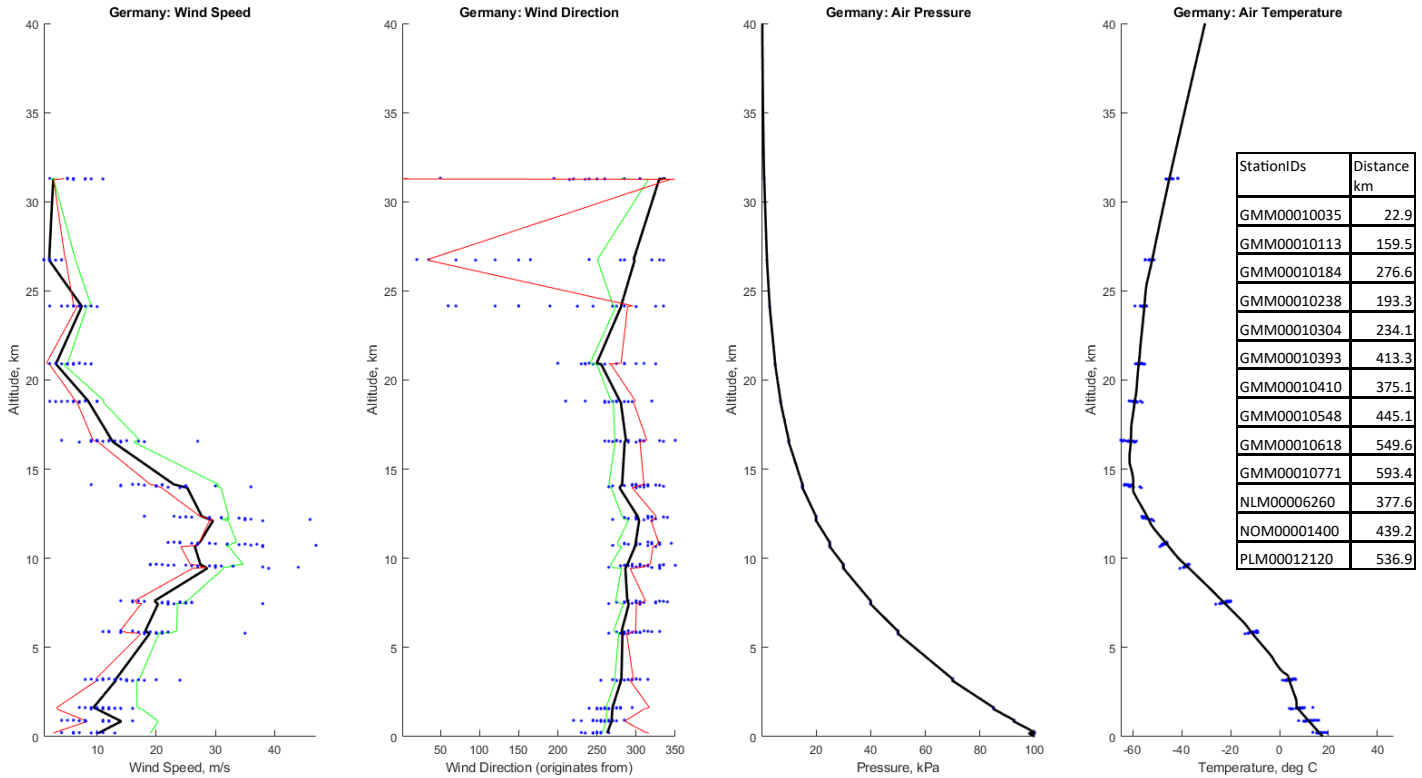


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Weather Data Summary:

Windspeed variation included: 1.5σ



Version Log:

Date	Version	Change Notes	Author(s)
09/15/2019	1	Original version based on CNEOS trajectory and validated against video footage.	Jim Goodall
09/16/2019	1.1	Typo correction, 12kg → 12000kg, minor formatting changes	Jim Goodall
09/17/2019	2	Strewn field relocated 3 km west, based on video data.. Strewn field filtered to only include fragments larger than 10g.	Jim Goodall
09/21/2019	2.2	Confidence is improved after further video analysis, but it is difficult to improve the precision, due to clouds in the videos. Simulation re-run to include all possible meteoroid types. Print quality improved.	Jim Goodall