



**IN-PREP**

# Simulation of Aerosols and Smokes

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# Meteorological and Geospatial information

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## PARAMETERS

- Wind Direction and Speed
- Air (and ground) Temperature and Humidity (Dew point)
- 3D Terrain Model
- Date and Time → Meteo Archives

## PARAMETERIZATION

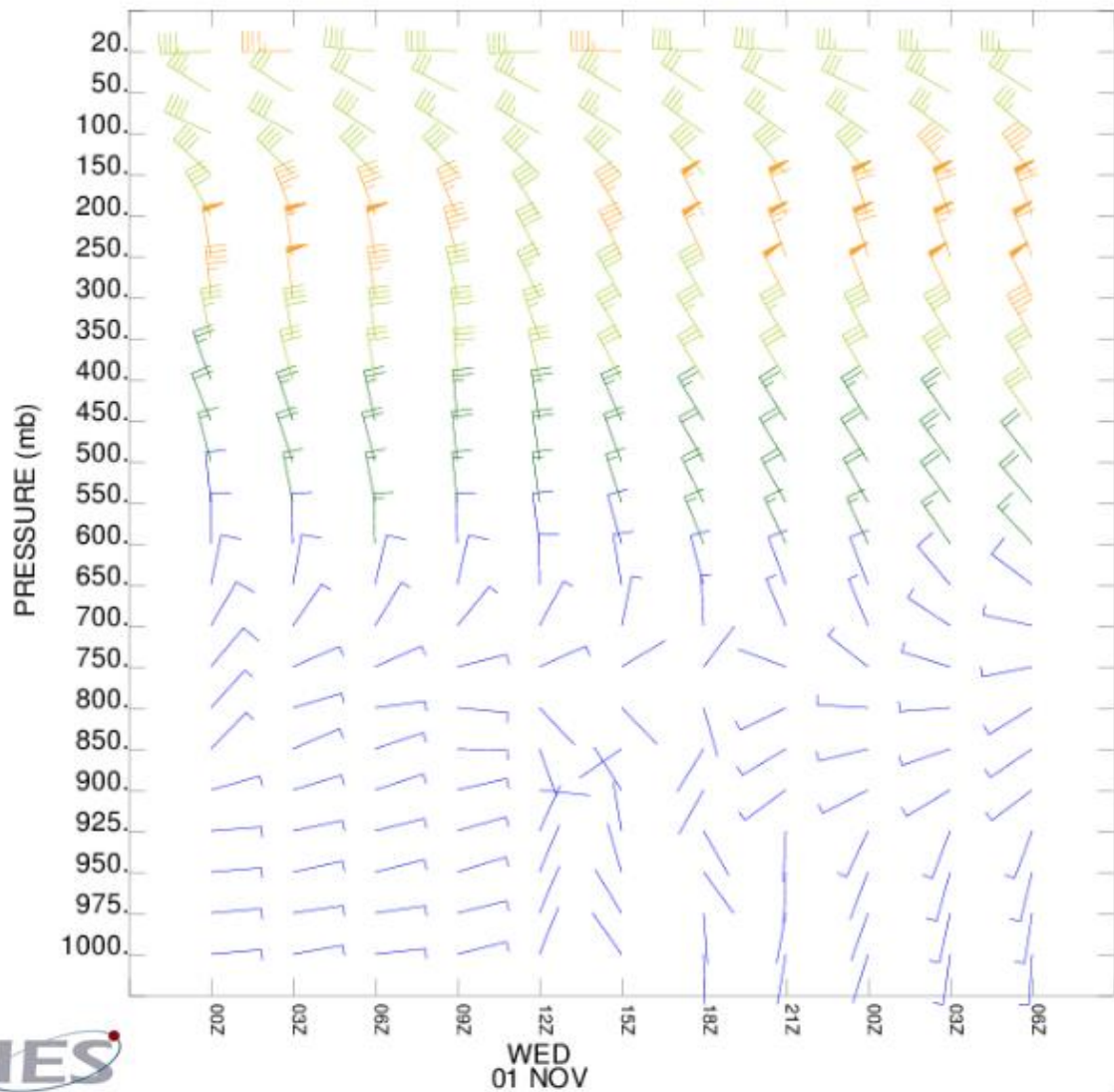
- Frequency of refresh (**temporal resolution**): scaled on parameter changes AND the operational needs
- Size of cells (**spatial resolution**): depending on resolution of meteorological models

# Prevailing Meteorological Conditions & Parameters

DATA INITIAL TIME: 01 NOV 2017 00Z

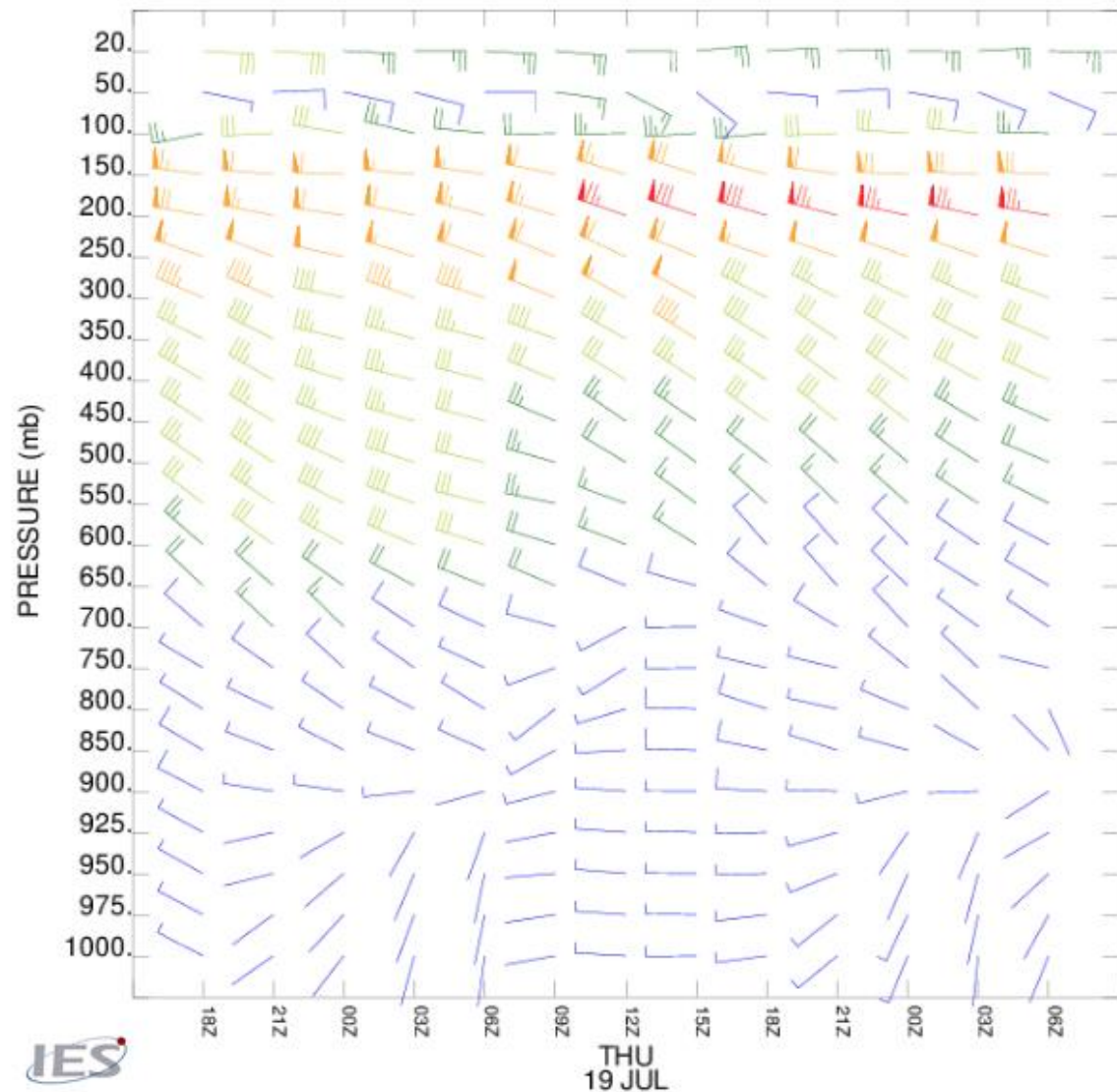
CALCULATION STARTED AT: 01 NOV 2017 00Z  
CALCULATION ENDED AT: 02 NOV 2017 06Z

READY Web Server



CALCULATION STARTED AT: 18 JUL 2018 18Z  
CALCULATION ENDED AT: 20 JUL 2018 06Z

READY Web Server



# Prevailing Meteorological Conditions

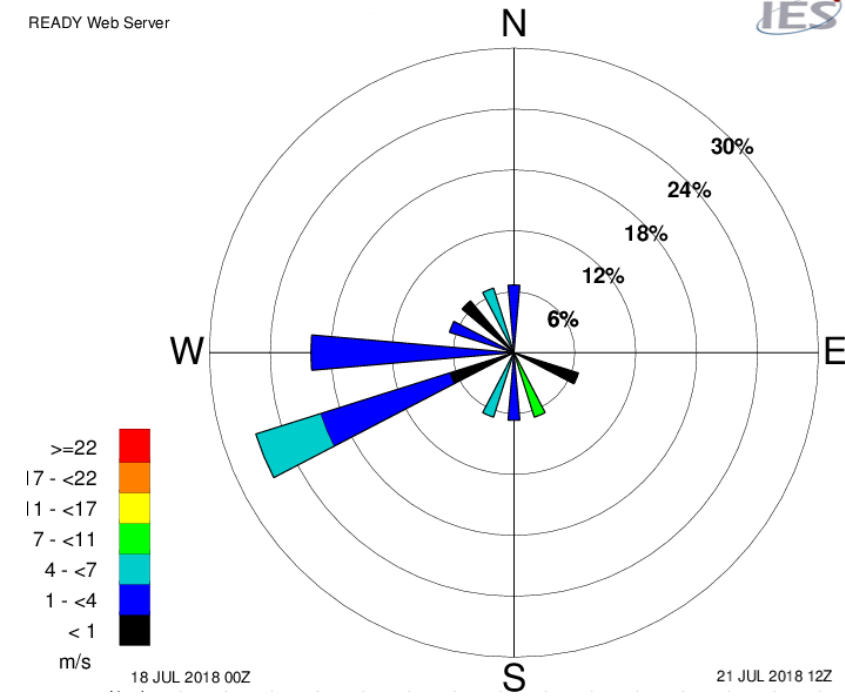
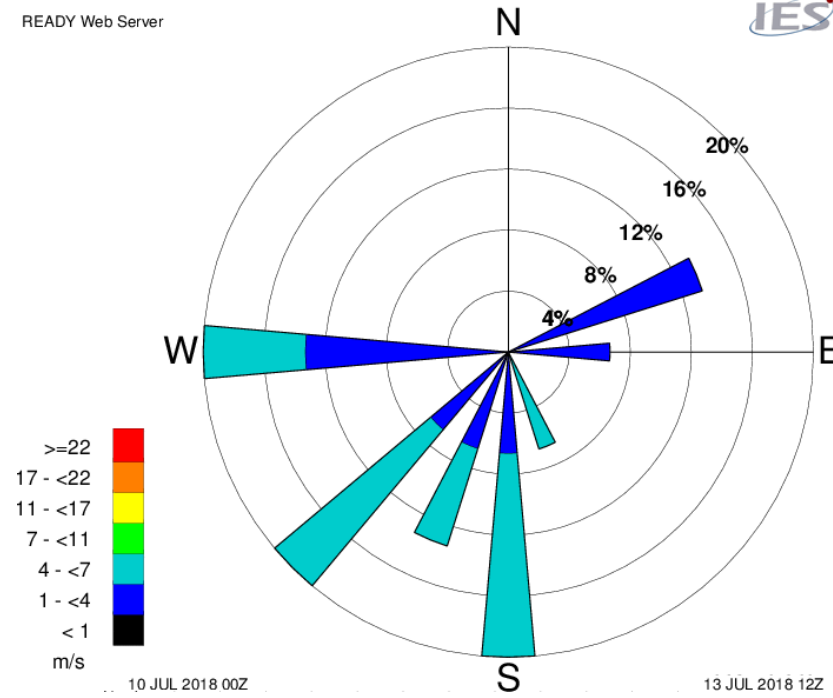
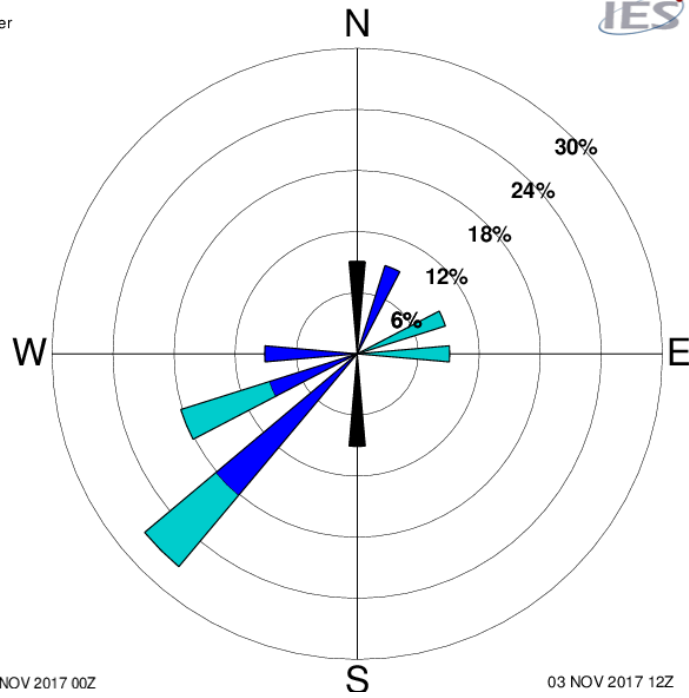
READY Web Server



READY Web Server



READY Web Server



>=22  
17 - <22  
11 - <17  
7 - <11  
4 - <7  
1 - <4  
< 1  
m/s

>=22  
17 - <22  
11 - <17  
7 - <11  
4 - <7  
1 - <4  
< 1  
m/s

>=22  
17 - <22  
11 - <17  
7 - <11  
4 - <7  
1 - <4  
< 1  
m/s

# Actual Parameters

EVENT DATA					METEOROLOGY DATA							
Chemicals	Latitude, Longitude (decimal)	Release layer bottom - top (m agl)	Released mass (kg)	Release duration (hhmm)	Pressure (hPa)	Temp C° (2m agl)	Dew C° (2m agl)	Temp C° (850mb)	Wind direction (deg)	Wind speed (kn)	Rain (mm)	Zulu (hhmm)
Chlorine	42.734N, 12.731E	0 - 2	135	0015	1024.5	4.7	0.9	5.2	82.3	3.2	0.0	0800-0900
Chlorine	42.734N, 12.731E	0 - 2	720	0120	1024.5	4.7	0.9	5.2	82.3	3.2	0.0	0800-0900
					1024.7	11.6	0.5	5.5	74.7	3.4	0.0	0900-1200
Chlorine	42.734N, 12.731E	0 - 2	1170	0210	1024.5	4.7	0.9	5.2	82.3	3.2	0.0	0800-0900
					1024.7	11.6	0.5	5.5	74.7	3.4	0.0	0900-1200
Chlorine	42.734N, 12.731E	0 - 2	3240	0600	1024.5	4.7	0.9	5.2	82.3	3.2	0.0	0800-0900
					1024.7	11.6	0.5	5.5	74.7	3.4	0.0	0900-1200
					1023.9	14.9	0.5	6.5	21.6	0.8	0.0	1200-1500
					1023.1	13.3	2.7	6.7	320.6	1.3	0.0	1500-1800



# Propagation Modelling and Forecast

