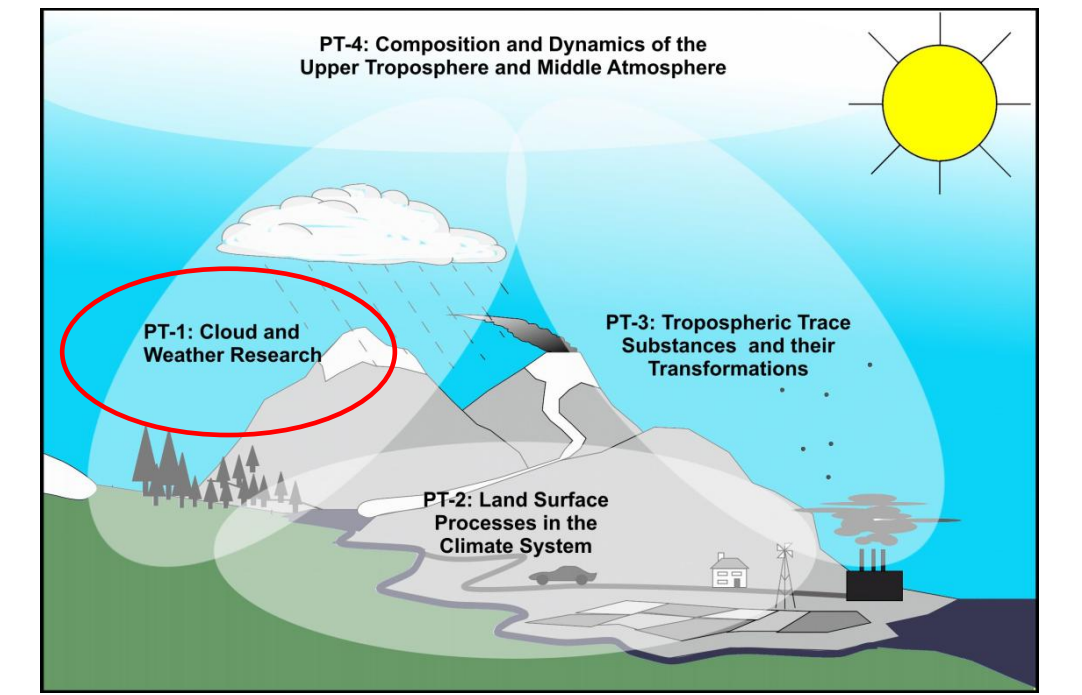
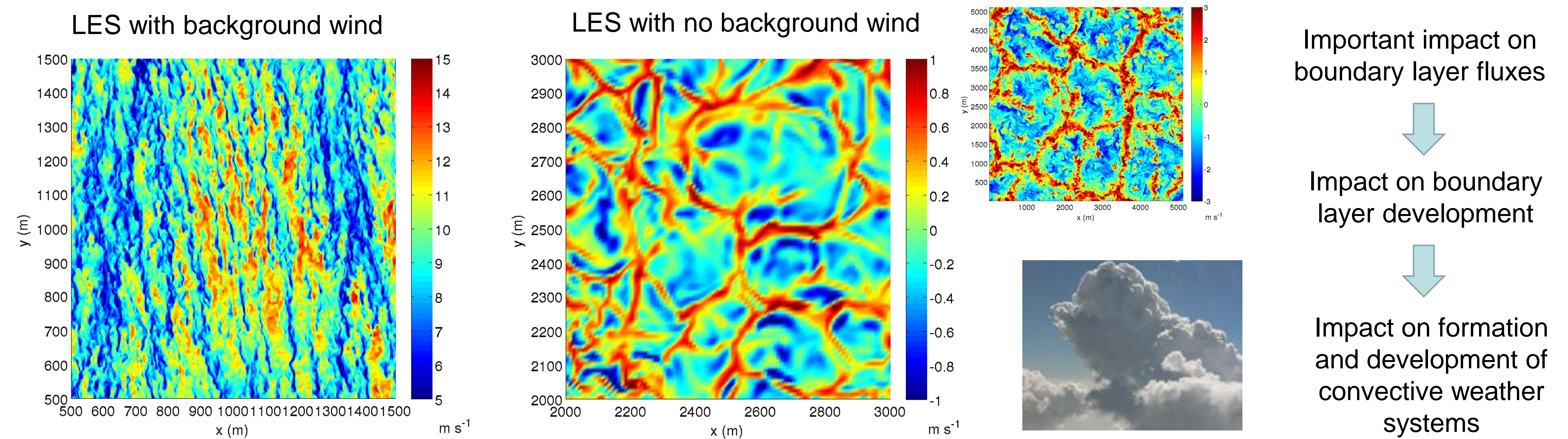


# A new approach to characterize coherent structures in the atmospheric surface layer

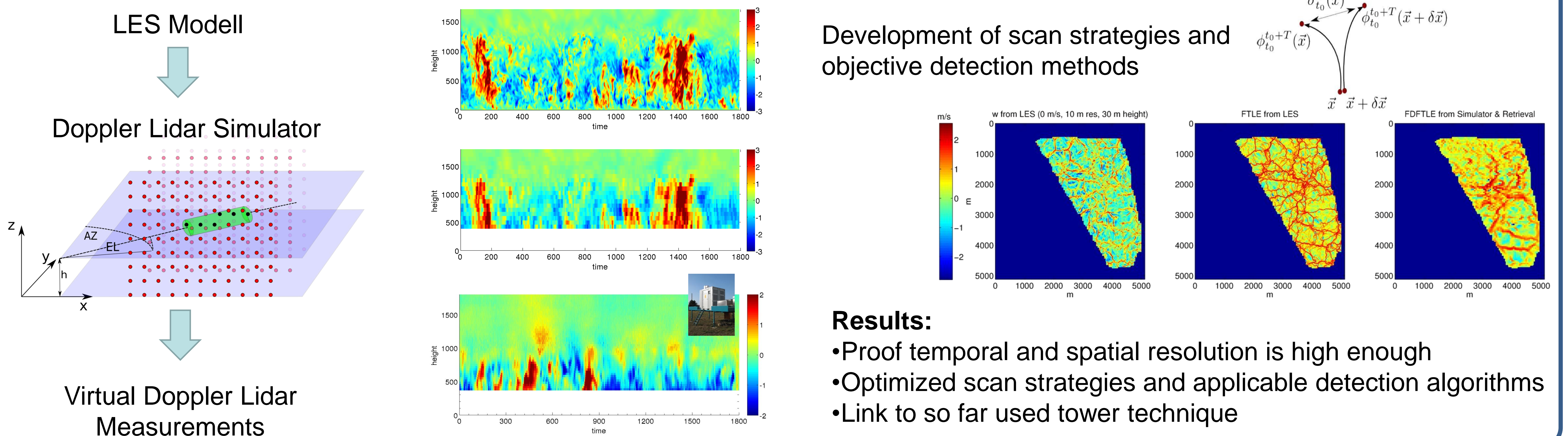
Katja Träumner  
 KIT Young Investigator Group (YIG)  
 "Exploring coherent structures using dual-Doppler lidar systems"



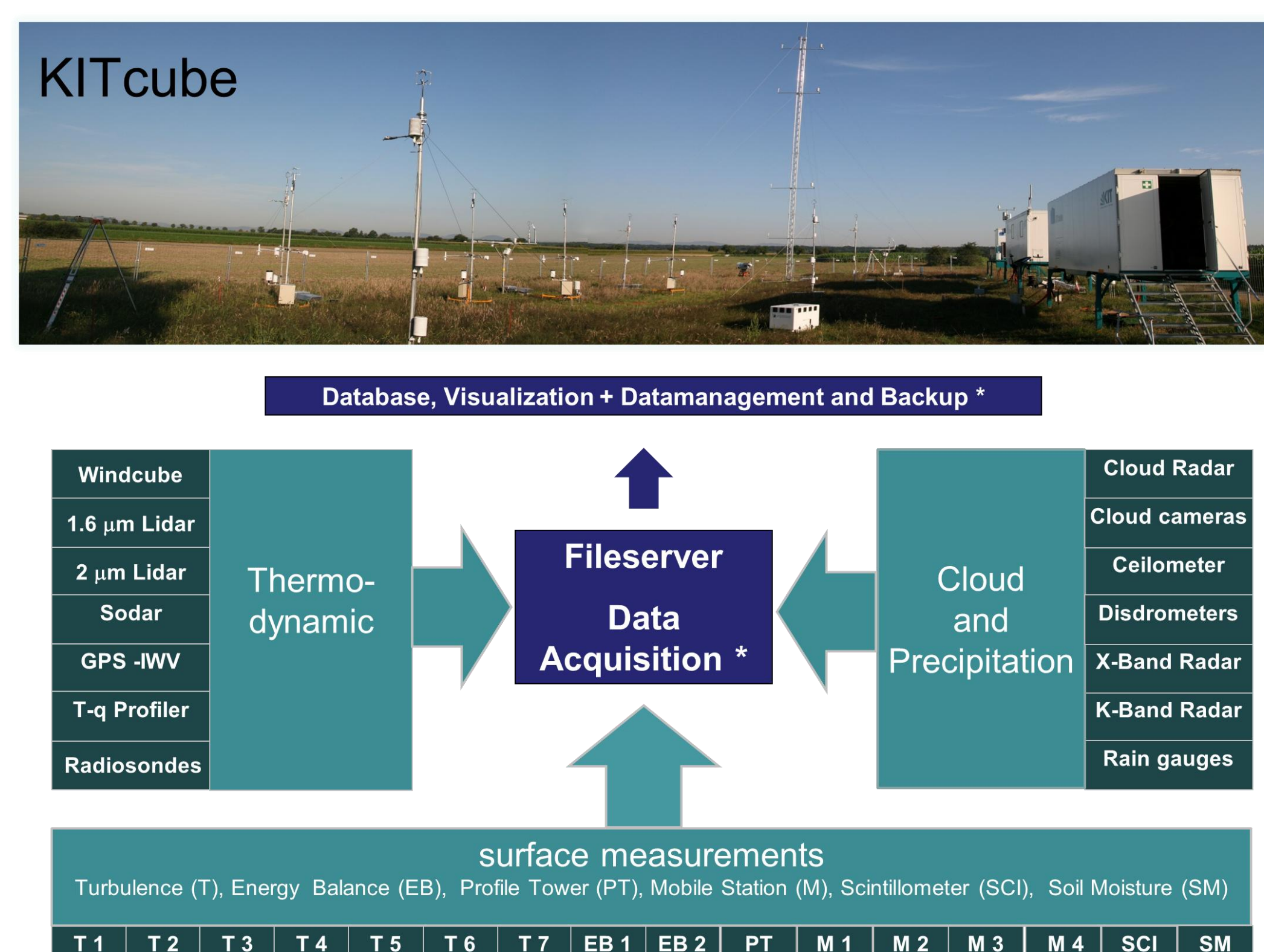
## The Importance of Coherent Structures in Atmospheric Turbulence



## Model-based Feasibility Studies



## Experimental Approach



Implementation of a Dual Doppler System, which is able to measure

- at every point in the upper hemisphere in a radius of ~ 10 km
- highly synchronized
- with real-time adaption to atmospheric conditions

