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Fog Analysis during SOFOG3D Experiment

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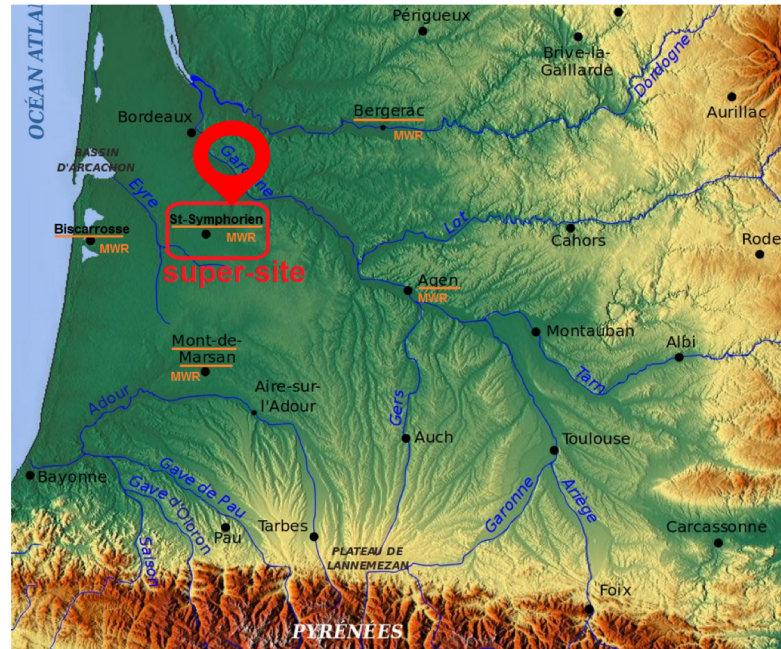
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Observation Site



- SoFOG-3D campaign ran from October 1, 2019 to March 31, 2020.
- Observations of fog structures are collected using various instruments.

LWC retrieval

An algorithm based on variational method to retrieve LWC of liquid cloud and fog.

Forward model:

$$\ln Z = \ln a + b \cdot \ln LWC$$

$$LWP = \sum LWC \cdot dz$$

where $\ln a$ is called ‘scaling factor’ retrieved for each profile.

Apriori used in the algorithm is from Atlas’ empirical relation for clouds.

When LWP is not available climatology of $\ln a$ is used to retrieve fog LWC.

