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## Conference on European Tornadoes and Severe Storms

### **Synoptic situations over Europe associated with thunderstorms in Poland**

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The research on thunderstorm conducted in 1997 there were distinguished typical synoptic situations over Europe at the presence of which there emerge storms over Poland.

Frontal storms emerge most often in the warm part of the year:

- While cold atmospheric front is moving over Poland from the west or northwest. This front is connected with the low-pressure system shifting over the North Sea and Scandinavia or over the area of the Baltic Sea. This situation is present at 46% of all days with thunderstorm.
- While cold atmospheric front is moving over Poland from the north or northeast. This front usually emerges with masses of cold air coming from Scandinavia. This translocation is caused by the influence of an active low the center over northwest Russia. This situation is present at 11% of all days with thunderstorm.
- On cold fronts connected with a local system of low pressure connected with a local system of low pressure the center of which is moving from the southwest to the southeast directly over the area of Western and Middle Europe, Poland included. This situation is present at 18% of all days with thunderstorm.

Intramass storms emerge in the warm part of the year:

- In long periods of nice cloudless weather connected with the influence of a system of high pressure, unstable balance of air masses and with the lack of atmospheric fronts over Poland. In such a case the system of higher pressure covers major areas of Europe and air masses maintaining over Poland are characterized by high humidity.
- Once a cold front has moved over Poland in the air masses, which are to follow.

Intramass storms occurred in 25% of all cases of days with thunderstorm.

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References

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