

THUNDERSTORM

1) So let's talk about thunderstorm for a while. Why is this weather phenomenon considered to be hazardous? Because it is followed by rain, wind gusts, wind shears and wet microbursts that could be quite unpredictable and really hazardous. Lightning is known to be rather unpleasant too.

2) How can wind affect the flight?

You see, heavy wind especially on final approach can cause severe turbulence.

3) Turbulence? What are negative effects of it? And what might happen in case of severe turbulence?

- First of all it results in change of speed that can lead to misbalance of the aircraft, leading to stall...
- Then there could be some damages, caused to the aircraft frame. It could be buckling or denting...
- And finally people on board can get injured due to severe bumpiness = болатанка. It is related to uncontrollable moving of the objects, untied, unfixed, unlocked which can cause damages to people and the plane as well.
- Besides weight distribution could be changed and as a result the center of gravity changes that can lead to misbalance of the aircraft.

4) It sounds threatening! How is it possible to prevent it?

- Taking seats and fastening seat belts are required.
- Besides pilots have to adjust controls to keep the aircraft balanced or trimmed. It will help them to prevent stall.
- Apart from this, most modern aircraft are equipped with weather radar, warning flight crew of potential thunderstorms ahead on route. Wind shear Predictive System is expected to be pretty helpful in this case.

5) Well, we have been speaking about thunderstorm on the track that is when the aircraft is flying. But what can happen if the crews have to land in the airport where thunderstorm is reported?

Well, thunderstorm (would) can occur not only on the track but in the vicinity of the airdrome as well. In case of severe thunderstorm, landing or take off are prohibited. In this case going around to an alternative airport is recommended (or would be recommended)

6) What can happen upon arrival at destination or taking off during the thunderstorm?

Landing into strong cross wind is known to cause many difficulties for pilot because severe gusts can blow the airplane over onto a wingtip or cause it to weather-vane into the wind that could result in sliding off the runway or taxiway.

7) Should runway conditions be taken into consideration?

Of course! Poor conditions of the runways particular standing water can result in gliding or aquaplaning, often leading to collisions with ground obstacles or vehicles or another aircraft.

*photo of runway
[wet runway]*