

The only airport in the world with a mandatory wind limit

OPSGROUP Team

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A slightly skeewiff statue of Cristiano Ronaldo is the most notable thing about LPMF/Funchal Airport which, since last year, has been known as Cristiano Ronaldo International Airport.

Before that, however, the airport on Madeira's east coast was better known for hosting one of the world's most challenging approaches and landings.

The airport's runway is often buffeted by Atlantic winds, while its proximity to the mountains and ocean present yet more difficulties. Pilots scheduled to arrive here must undergo additional training, studying the approach in detail. Airlines wishing to fly into Funchal require special approval from the Portuguese aviation authority.

Earlier this year the Association of Portuguese Airline Pilots (APPLA) said it was vital that the airport closes when winds exceed the maximum limits (depending on wind direction). In a statement it said that *"there are limits to anything in aviation. These limits generally exist for several reasons, including safety issues"*. APPLA was concerned there had been some 20 commercial landings in the first half of 2017 when the wind

had been exceeding limits.

The Airport is located on a plateau on the east coast of Madeira Island. Except for the seaside, ground raises rapidly very close to it. This fact generates, very often, wind variation and turbulence. Also severe low altitude wind shear conditions and / or micro burst are likely to be encountered.

What are the limits?

When landing

Maximum of two minutes mean Wind Speed Values indicated by the Touchdown anemometer:

- In the sector 300° to 010° MAG (clockwise) - 15KT, with the maximum Wind Gust of 25KT
- In the sector 020° to 040° MAG (clockwise) - 20KT, with the maximum Wind Gust of 30KT
- In the sector 120° to 190° MAG (clockwise), and if Runway in use is 05 - 20KT with a maximum Wind Gust of 30KT, and if Runway in use is 23 - 15KT, subject also to maximum Wind Gust of 25KT as indicated by MID Anemometer.

Maximum of two minutes mean Wind Speed Values, including Gust indicated by the MID or ROSÁRIO Anemometers

- In the Sector 200° to 230° MAG (clockwise) - 25KT.

When Taking-off

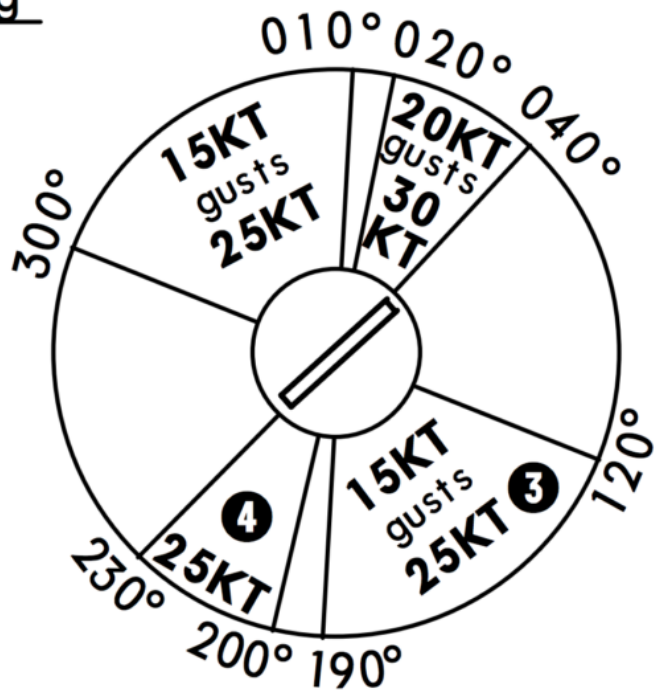
Maximum of two minutes mean Wind Speed Values indicated by the MID anemometer:

- In the sector 300° to 010° MAG (clockwise) - 20KT with no Gust limitations
- In the sector 020° to 040° MAG (clockwise) - 25KT with no Gust limitations
- In the sector 120° to 190° MAG (clockwise) and if Runway in use is 05 - 25KT with no Gust limitations, and if Runway in use is 23 - 20KT, also with no Gust limitations

NOTE: The limitations above do not supersede any Operators or Aircraft Operations Manual (AOM) limitations if these are more restrictive.

Wind limitations for landing
(relative to the touchdown
anemometer two minutes
mean values only): max
permissible wind.

- ③ Relative to the MID anemometer.
- ④ Relative to the MID or Rosario anemometers including gust.



Turbulence

- Attention should be paid to the WIND DIRECTION INDICATORS located on the south side of the runway, near each touchdown area. They will reflect unexpected wind changes. Occasionally they will indicate wind from opposite directions;
- When landing on RWY 05 wind differences greater than 5 KT, between Rosário and MID anemometers, may indicate turbulence on final;
- When landing on RWY 23 with winds from South and Westerly Sectors, one may experience severe turbulence at low altitude over the RWY Threshold;
- Headwind or nearly so, up to 15 KT will cause “WEAK” turbulence on final;
- Wind of 15 KT from sector 020° to 050° MAG (clockwise) may cause “MODERATE” turbulence;
- Wind of 15 KT or even less from sector 300° to 020° MAG (clockwise) may cause “SEVERE” turbulence;
- Down drafts or up drafts are to be expected near the threshold of runways 05 and 23.

Important to note: Air Traffic Control won't stop you from making an approach and landing if the wind limits are exceeded but they will promptly report all flights having done so to the authorities back on the mainland. There have been threats of license and airline operational approval suspensions in the past.

Looks pretty fun though!

Extra Information:

- Portugal AIP
- Pilot's Briefing Room - Funchal