

Potential flight distance

Description

Title

- ▶ content
- ▶ date and time of validity
- ▶ base date and time of model run

Content

The **potential flight distance (PFD)** concentrates in one single value the usability of a whole day for thermal flights. It was “invented” in the 90’s at an OSTIV-Meeting in Nötsch (Austria). Computed for a larger area it shows up, where thermal racetracks develop or where gliding may be problematic.

This high level parameter takes into consideration many other parameters, such as insolation, soil type, vegetation type und state, strength and height of thermals, depth of clouds etc.

Windspeeds above 40 km/h will reduce the PFD accordingly although now other sources of updrafts may become important. The absolute value should not be taken too literally. More important is the relative distribution.

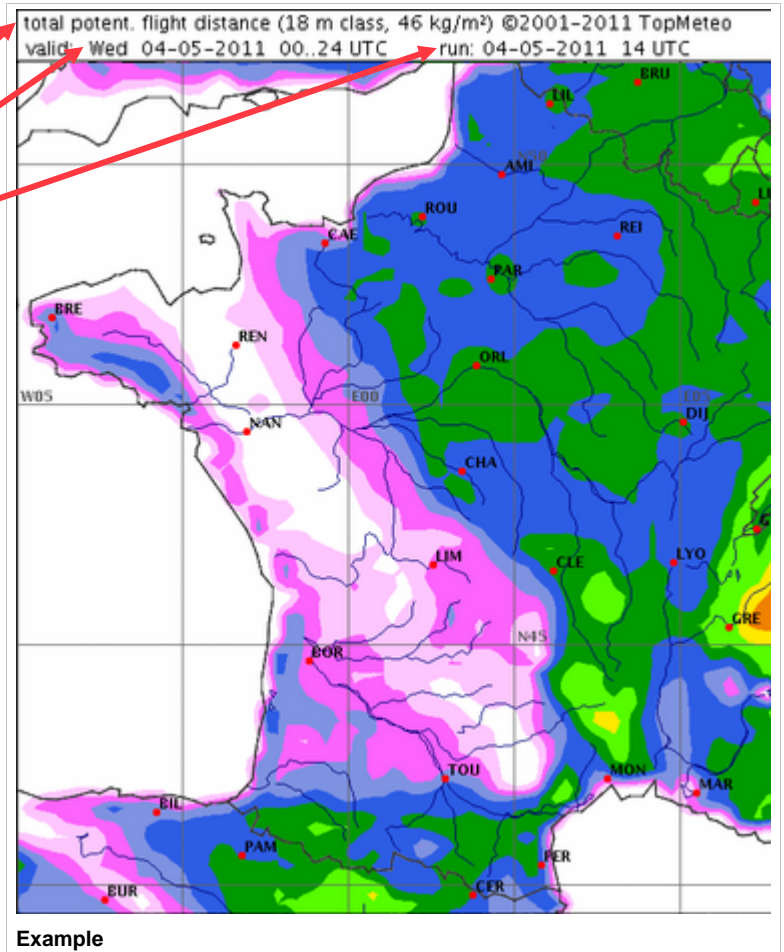
The result is a flight distance in kilometers valid for an 18-Meter-Class glider with moderate water ballast (46 kg/m²). Other classes can easily be assessed by a reduction or bonus.

Open class may accomplish **8% more**, **club class 20% less** of the PFD. **Untrained pilots** should apply **20-30% less**, **experienced x-country pilots** rather **10-20% more** of the PFD.

Values below 100 kilometers let expect traffic pattern operation or even less, values from 300 kilometers onwards show reasonable and values above 600 kilometers good to excellent conditions.

Base of data

- ▶ Regional numerical weather simulation model, operated at our weather computer center
- ▶ Highest actuality by 6-hourly update frequency
- ▶ Hourly forecast values



Legend

The meaning of the colors can be found in the **legend**. Dark green, for example, means a potential flight distance of about 500-600 km.

