

# Are Cross-Country-Waveflights possible almost without mountains?

**Ralf Thehos** 

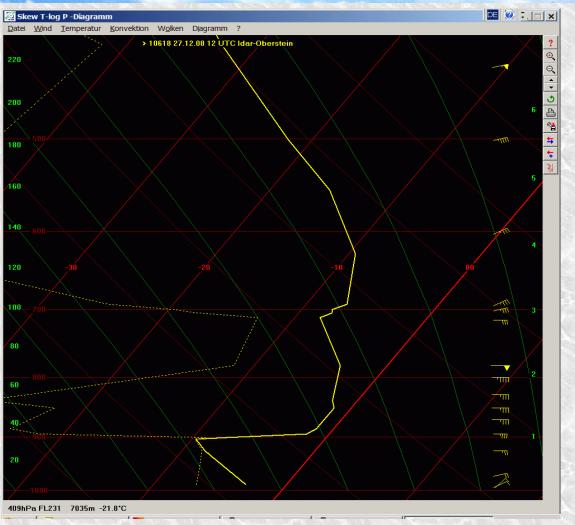
German Weather Service(DWD)



1035 365 2008-12-27 98 **12 UTC** 30 84 18 -13Ö 33/ Ð -9-359 97 D6 370 10 -12 1040 -134. 357 09 11 57 -8 97 27 a ίÓ δ 1030 28 260 305 09 97 65 -540 1025 258 ú 159 09 60 70 030 10 224 86 01 86~4 -5 1010 -58-4 -106-3 1025 ອັດ 2 2 3 10 1020 5 8 5253 101 00 4 3 581 8 7 냶 102 2068 2068 01 5 DC: ъ ښŏ وا • 1020 9 2 12 501. 10.50 5 40 17 w<sup>203</sup> 54 18 50 19 5 187 60 5 21 213 śó H 7444 00 **36** 'n, -15 20 155 52 13 3 0 5~3 7 542 18 189 56 20 3 183 00 18 60 186 19 98 5 50 140 05 19 60 10 ΥØ 17 196 03 Þ b 19 190 35+ 178 31 4 - J 19 , 188

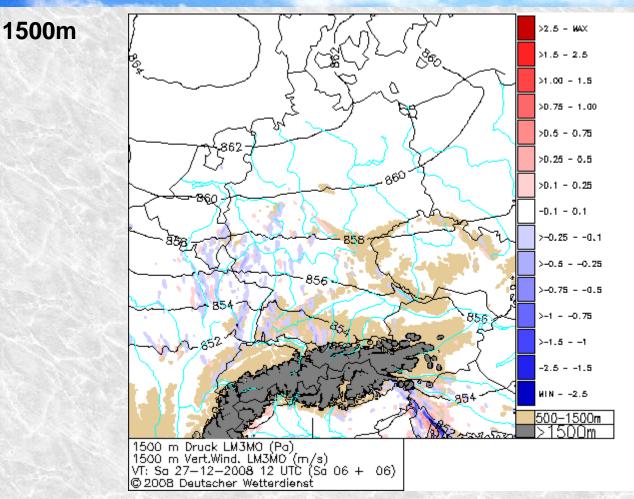
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#### Sounding Idar-Oberstein 2008-12-27 12 UTC

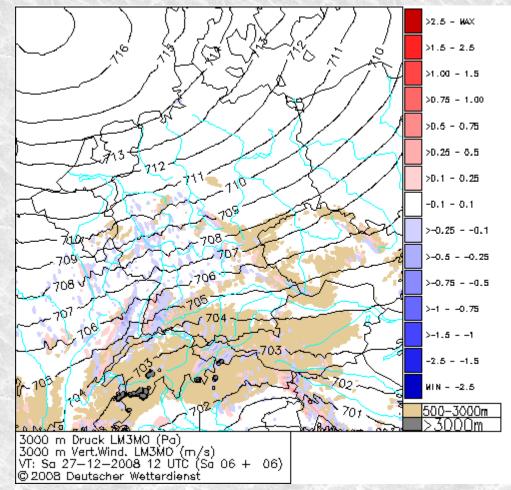




#### 2008-12-27 12 UTC COSMO-DE-Forecast 06 UTC +6h

6

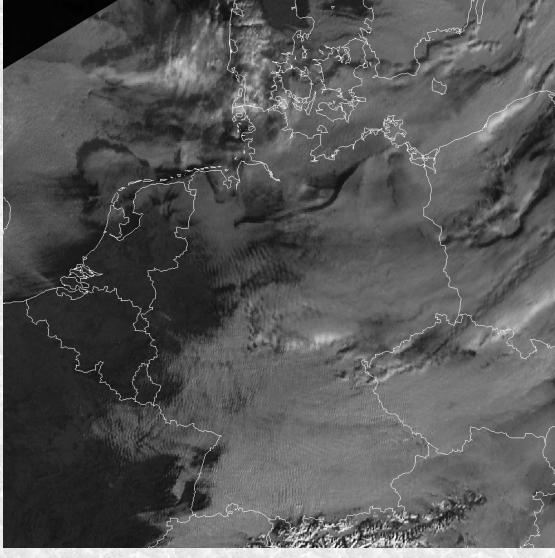
3000m



#### 2008-12-27 12 UTC COSMO-DE-Forecast 06 UTC +6h

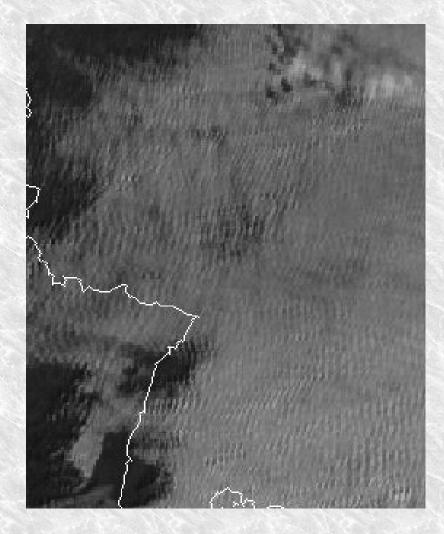


## 2008-12-27 09 UTC





## 2008-12-27 09 UTC



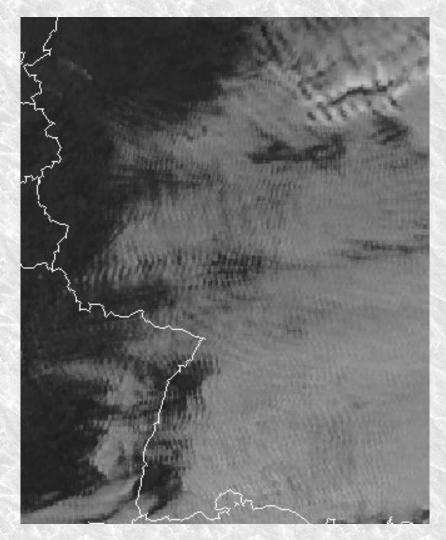


2008-12-27 09 UTC





## 2008-12-27 12 UTC

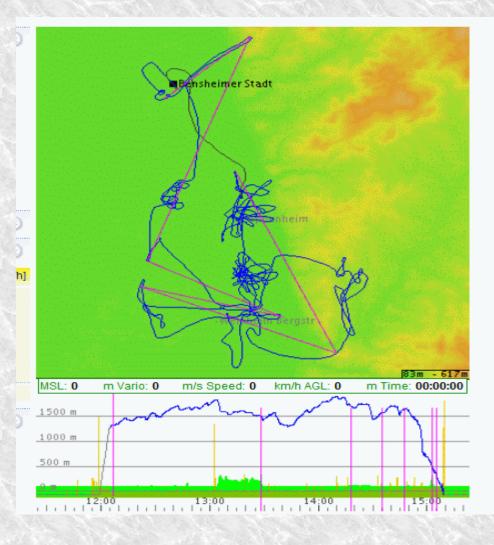




OLC-Flight Ralf Thehos

Climbing Rate app. 0.5-0.7m/s, max. 1m/s.

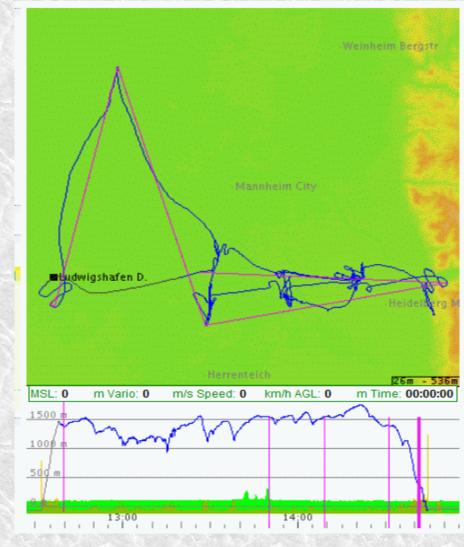
Wave-length app.3-4km.





OLC-Flight Benno Alexander

Best climb rates in front of the clouds.

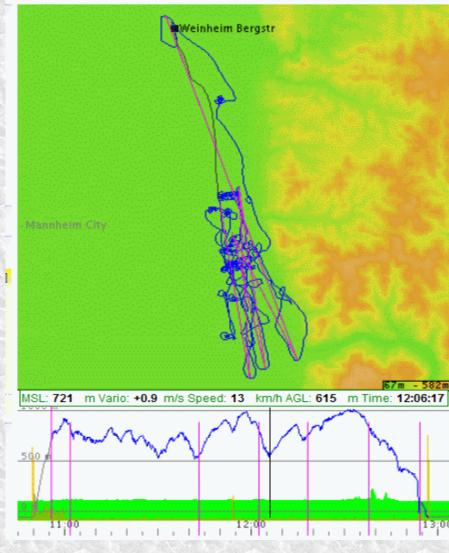




OLC-Flight Matthias Dietrich

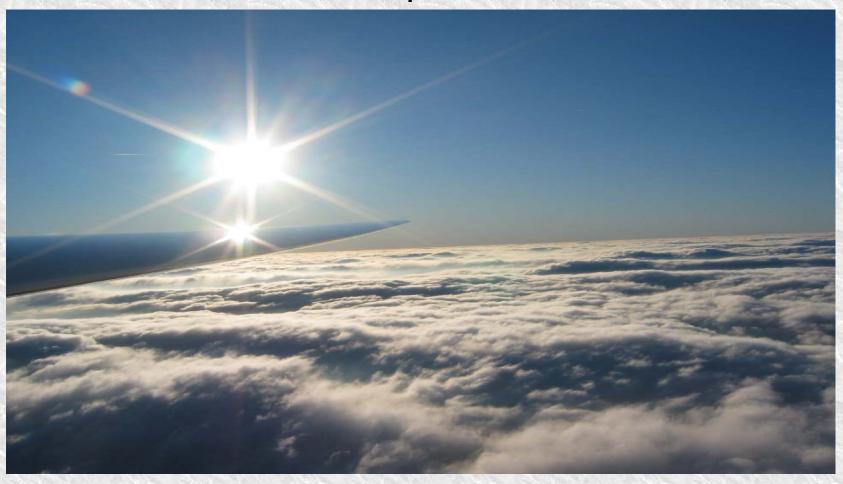
Possible to fly below the clouds (rotors).

Not possible(?) to climb over.





#### Some impressions













### Conclusions

There are some weather situations each winter with waves over hundreds of kilometers.

The waves are almost independend of terrain.

Cross-country flights may be possible in regions without higher mountains too.

COSMO-DE wave-forecasts give good qualitative signals for wave-flying.



#### Let's evaluate this winter

