

Svaeveflyvekonference 2015

Ejby



Forecasting X-Country Weather



Content –

1. Thermals, that's warm air - or not?
2. Humid air has less weight
3. Practical consequences for everyday flying
4. Differences in climb rates on the same day
5. Taking off early or late, with weak or strong lift to be expected
6. The influence of the air mass
7. Consequences for flying competitively

8. Characteristics of good soaring conditions

9. Typical weather patterns

10. Practical application



An aerial photograph taken from an airplane window, showing a vast landscape below. The foreground consists of patchwork agricultural fields in shades of brown, green, and yellow. A large, turquoise-colored body of water, possibly a lake or reservoir, stretches across the middle ground, dotted with numerous small islands. The background features a clear blue sky with scattered white and grey clouds.

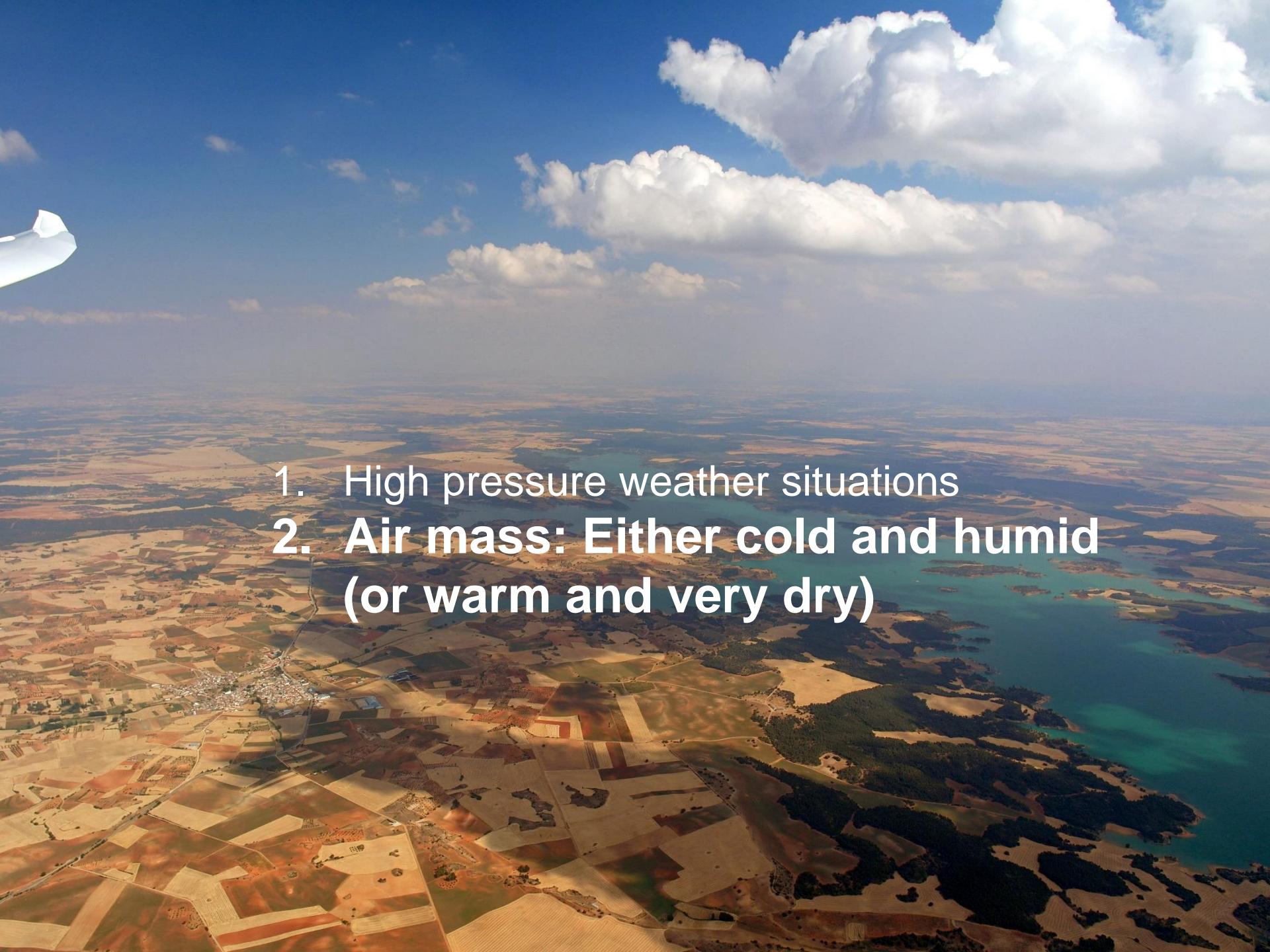
Characteristics of good soaring conditions

- 1. High pressure weather situations**



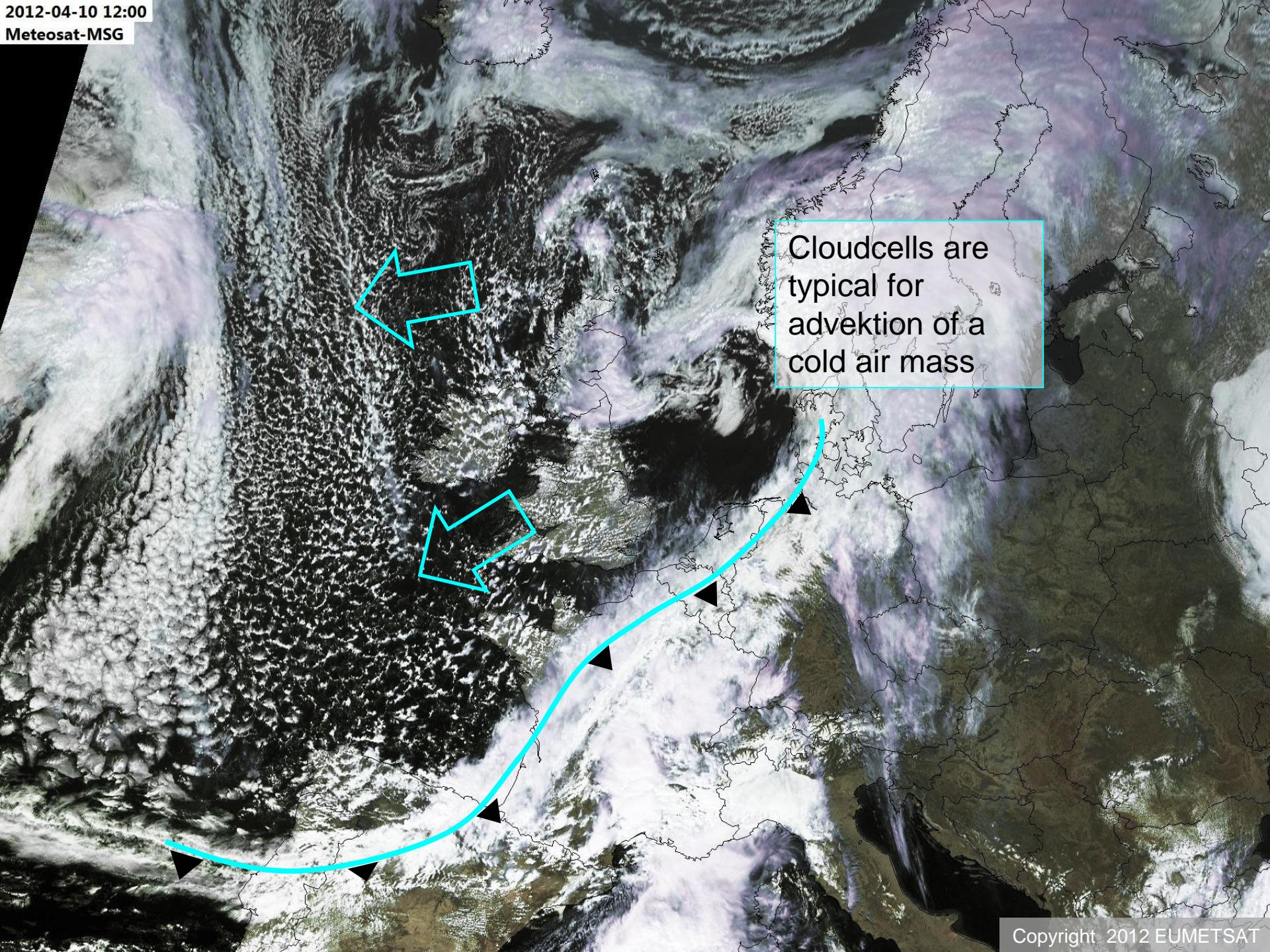
18

Hammer-Wetter

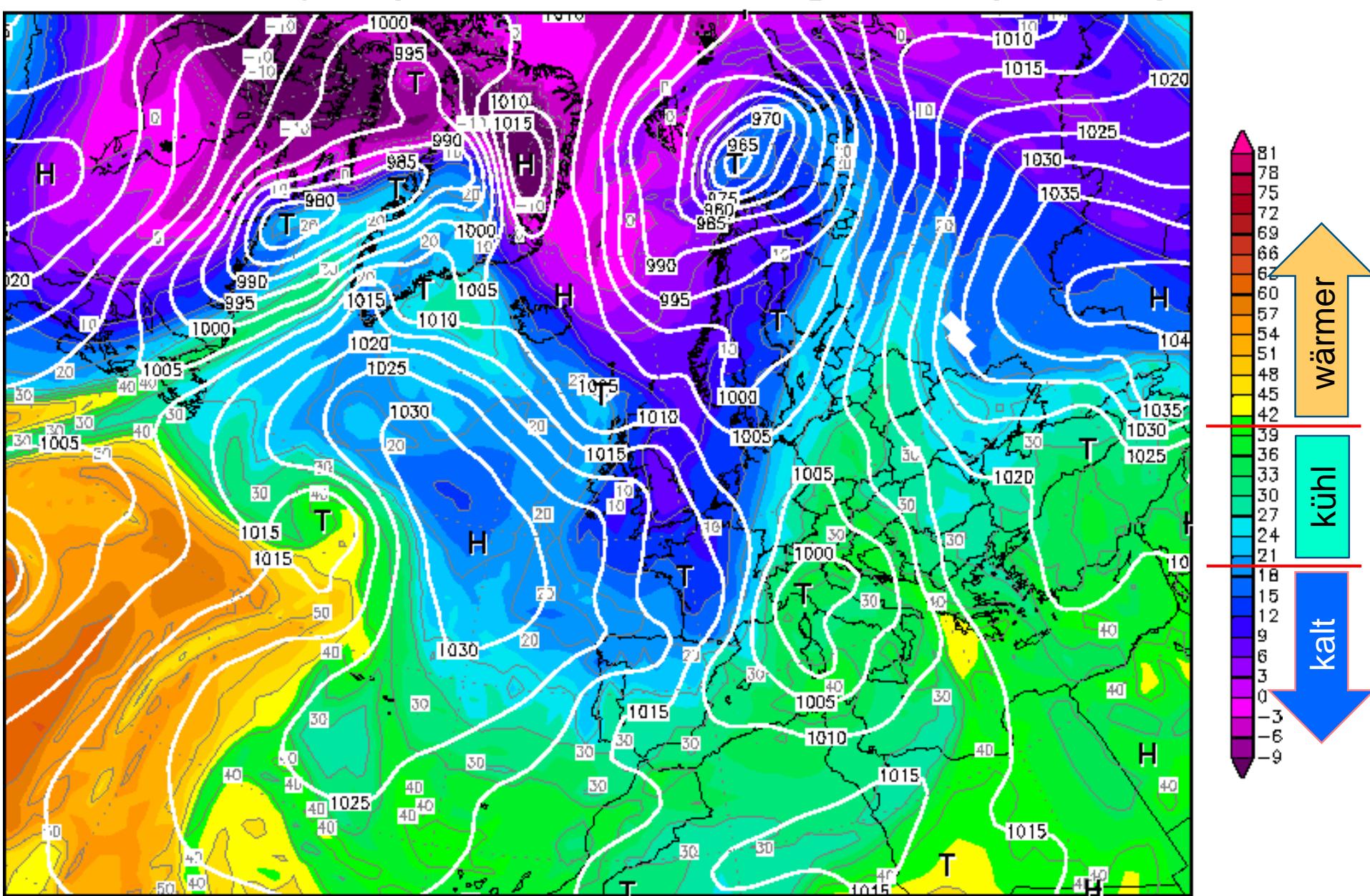
- 
- An aerial photograph taken from an airplane window, showing a vast landscape below. The foreground is filled with patchwork agricultural fields in various shades of brown, green, and yellow. A large, bright blue lake or reservoir occupies the middle ground, with numerous small islands scattered across its surface. The background consists of a horizon line under a clear blue sky, dotted with several large, white, cumulus clouds. The left edge of the frame shows the white interior of the airplane's window frame.
1. High pressure weather situations
 2. Air mass: Either cold and humid
(or warm and very dry)

2012-04-10 12:00

Meteosat-MSG

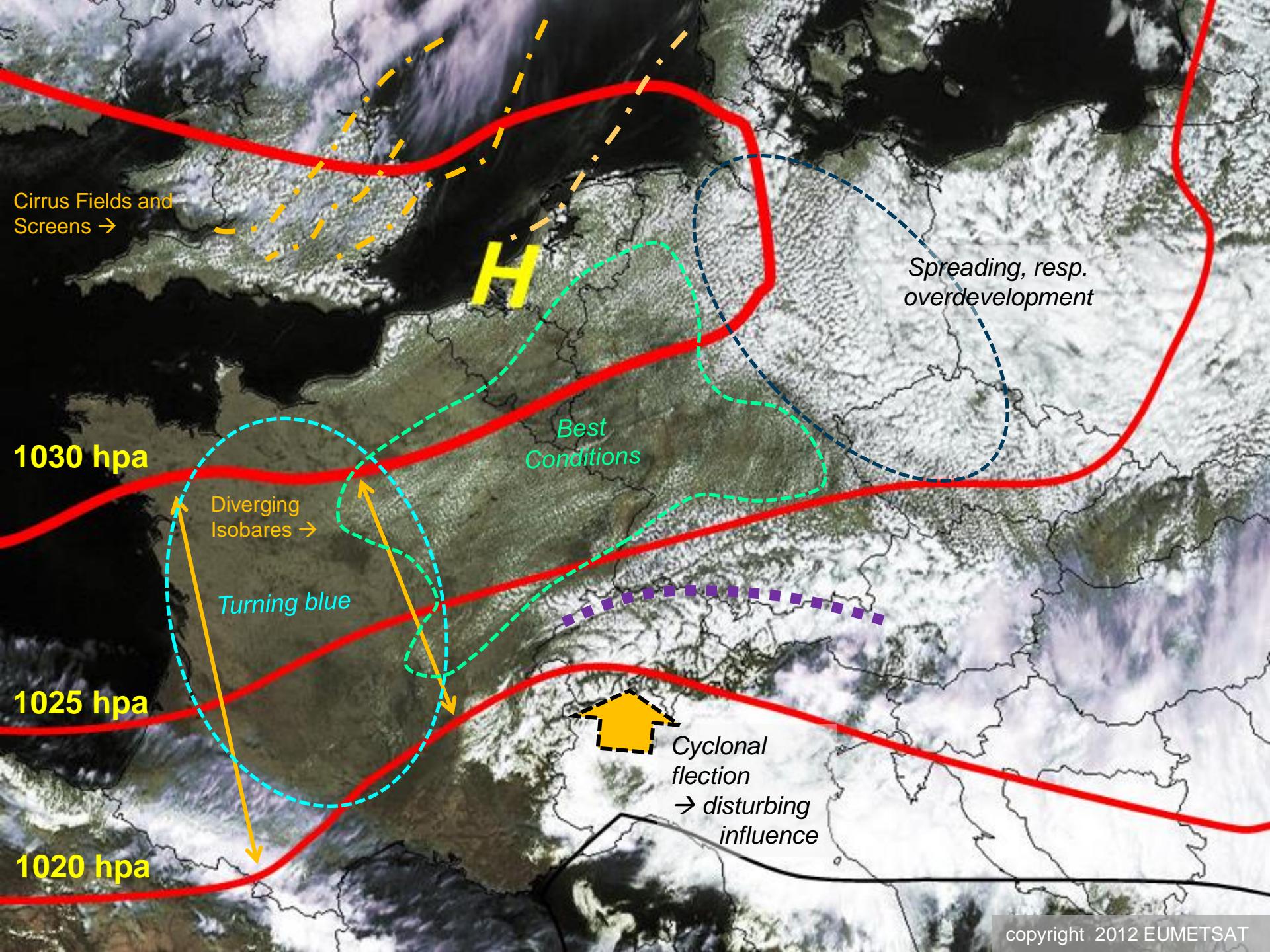


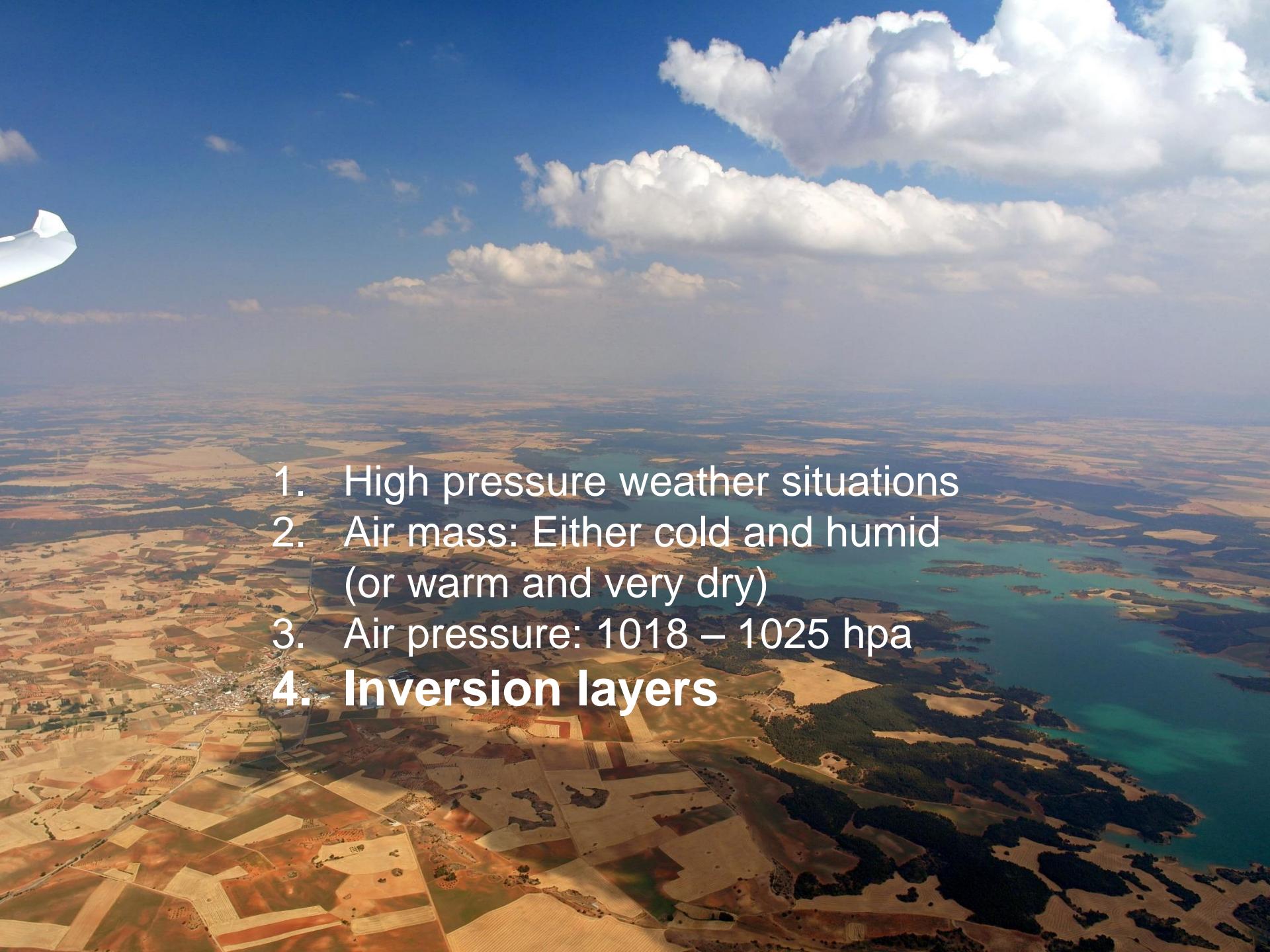
Bodendruck (hPa) und 850 hPa Aeq.Pot.T. (Grad C)

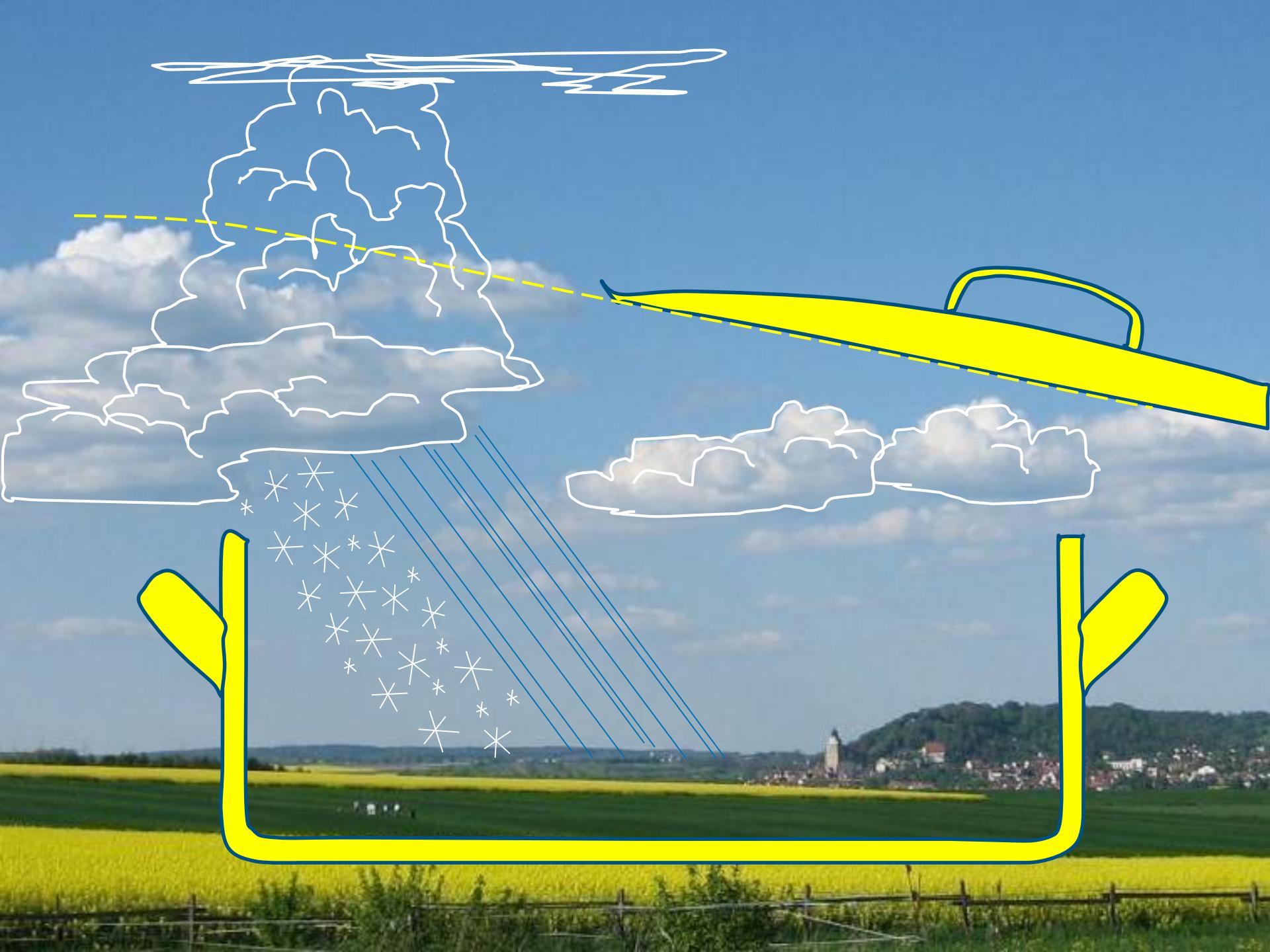


Daten: GFS-Modell des amerikanischen Wetterdienstes
(C) Wetterzentrale
www.wetterzentrale.de

- 
- An aerial photograph taken from an airplane window, showing a vast landscape below. The foreground is filled with a patchwork of agricultural fields in various shades of brown, green, and yellow. A large, turquoise-colored body of water, possibly a lake or reservoir, stretches across the middle ground, dotted with numerous small, dark islands. The background is a clear blue sky with scattered white and grey clouds. The left edge of the frame shows the white interior of the airplane's window frame.
1. High pressure weather situations
 2. Air mass: Either cold and humid
(or warm and very dry)
 - 3. Air pressure: 1018 – 1025 hpa**



- 
- An aerial photograph taken from an airplane window, showing a vast landscape below. The foreground is filled with patchwork agricultural fields in various shades of brown, green, and yellow. A large, deep blue lake or reservoir occupies the middle ground, dotted with numerous small, dark green islands. The background is a clear blue sky with scattered white and grey cumulus clouds. The edge of the airplane's window frame is visible on the left side.
1. High pressure weather situations
 2. Air mass: Either cold and humid
(or warm and very dry)
 3. Air pressure: 1018 – 1025 hpa
 - 4. Inversion layers**

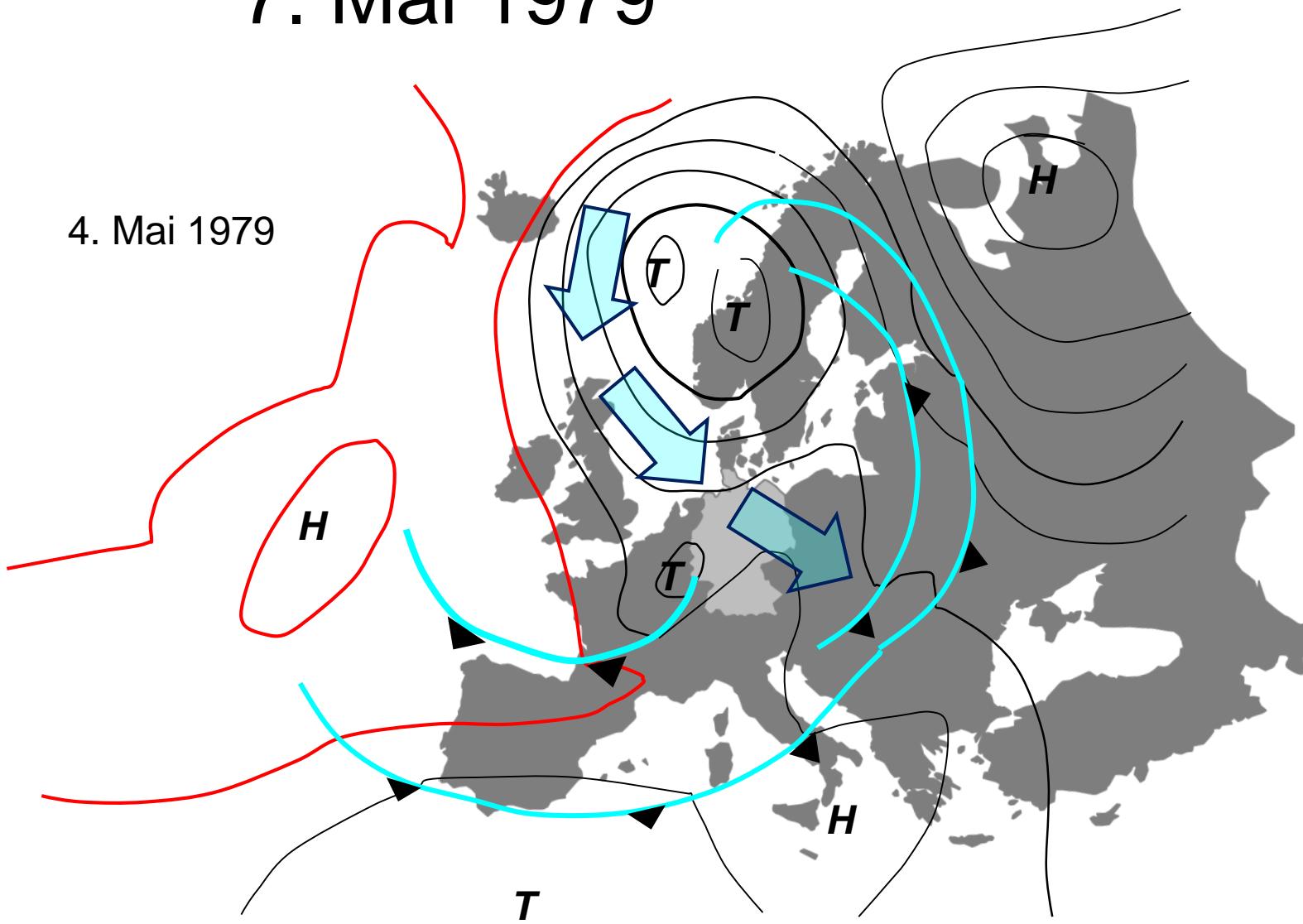


- 
- An aerial photograph taken from an airplane window, showing a vast landscape below. The foreground is filled with patchwork fields in various shades of brown and green. To the right, there is a large body of water with numerous small, dark islands or peninsulas extending into it. The sky above is a clear blue with scattered white and grey clouds.
1. High pressure weather situations
 2. Air mass: Either cold and humid
(or warm and very dry)
 3. Air pressure: 1018 – 1025 hpa
 4. Inversions
 5. **Wind not to strong**



Wind not stronger than 35 km/h

Sample Developments, 7. Mai 1979

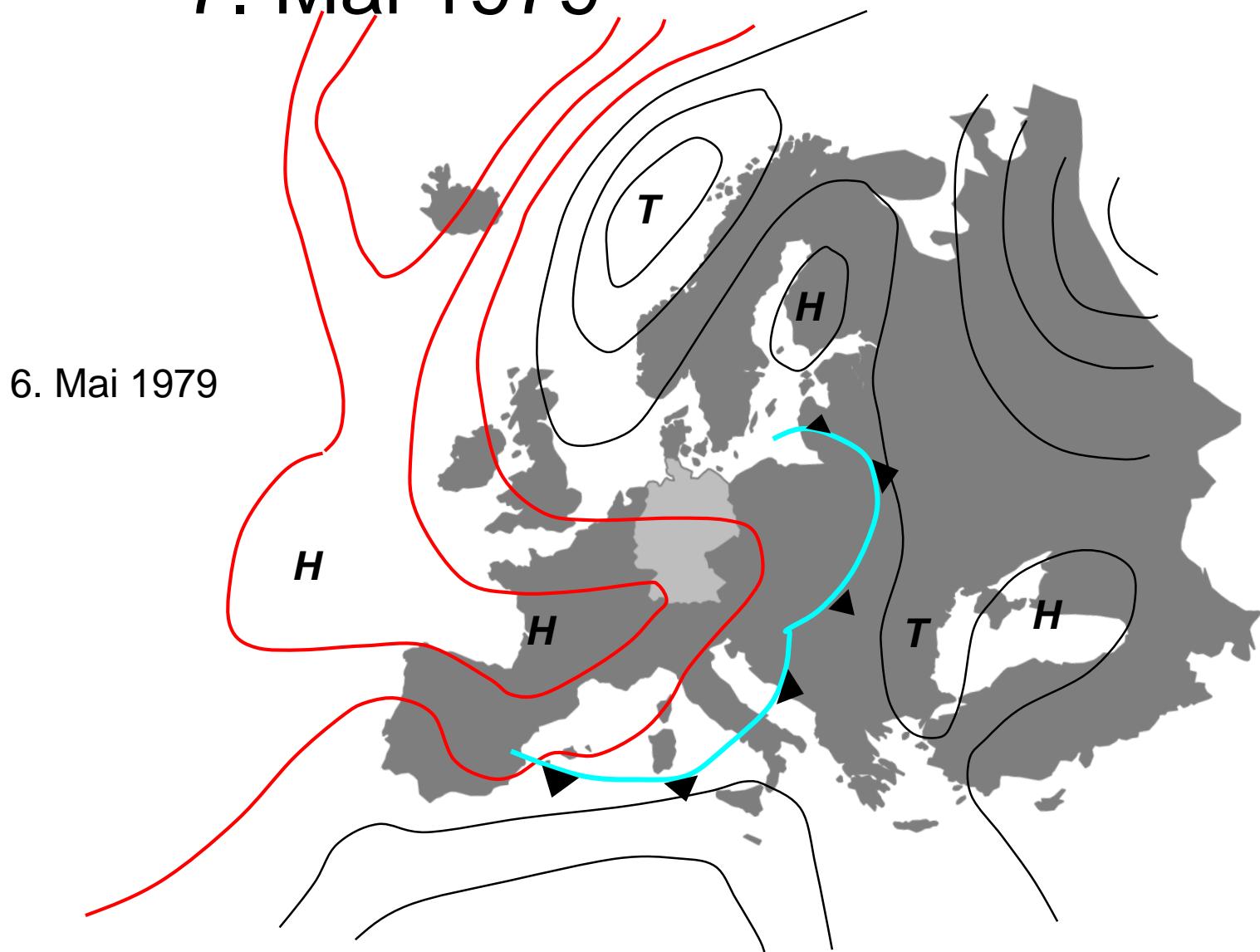




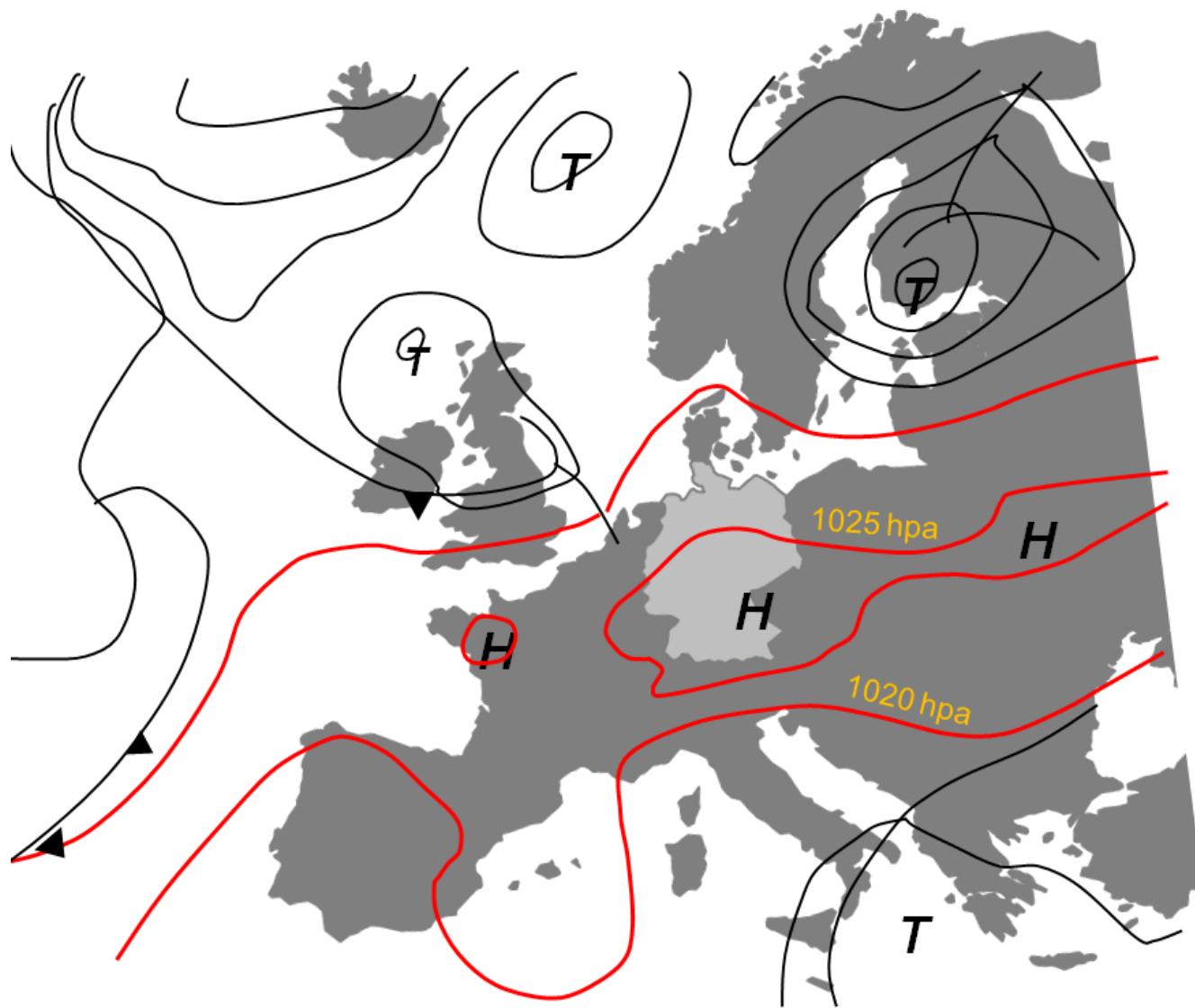


- Typical weather after a cold front has passed
(Foto: Lothar Schwark)

Sample Developments, 7. Mai 1979



7. Mai 1979



A wide-angle photograph of a rural landscape under a dramatic, cloudy sky. In the foreground, there's a field of green grass and yellow flowers, with a dark wooden fence running across it. Beyond the fence, there are more fields and a line of trees. In the distance, several hills or mountains are visible, and a small town or city can be seen nestled among them.

What would you do
on a day like this?

13. Mai 2012 05.27
UTC



View at 8:00 am local time

13.Mai 2012
05.57 UTC

Sunday, 13. May 2012

Tageswertung OLC 2012 (Weltweit / 13.05.2012)											
2012-05-13 [2818]											
#	Punkte	Name	km	fai-km	km/h	Startplatz	Club	Flugzeug	Start	Ende	Info
10	1.115,75	Wilfried Großkinsky (DE / NW)	1.126,45	856,9	99,76	Dahlemer Binz (DE / NW)	FG Dahlemer Binz	Nimbus 4M	06:58	19:10	i
3	1.159,07	Michael Wiech (DE / HE)	1.105,83	872,9	110,83	Vielbrunn (DE / HE)	FSC Mümlingtal Vielb...	Ventus 2cM/1...	07:24	17:48	i
17	1.082,75	Erwin Ziegler (DE / BW)	1.099,97	808,8	106,37	Aalen Heiden... (DE / BW)	LSR Aalen	ASW 22BLE	07:26	18:13	i
23	1.040,65	Christian Maex (DE / BY)	1.069,69	527,6	94,60	Burg Feuerste... (DE / BY)	Aero-Club Ansbach	Ventus 2cM/1...	06:49	18:38	i
15	1.085,18	Ulrik Beutter (DE / BW)	1.042,95	791,9	97,46	Farrenberg (DE / BW)	FSV Mössingen	Ventus 2cT/1...	07:33	18:46	i
5	1.138,92	Siegfried Samson (DE / HE)	1.041,38	1.008,5	103,51	Langenselbold (DE / HE)	AC Langenselbold	DG 800/18m	07:11	17:37	i
Nicht drei, aber einen Smiley bekommt jeder OLC-Teilnehmer, der uns unterstützt... hier mehr Informationen dazu.											
12	1.104,58	Andreas Maurer (DE / RP)	1.037,37	997,2	99,59	Landau Ebenbe... (DE / RP)	DJK Landau	AS 22-2	06:57	18:38	i
9	1.117,34	Jochen Polsz (DE / RP)	1.037,30	1.011,7	103,31	Landau Ebenbe... (DE / RP)	AeC Landau	Antares 20m	07:37	17:50	i
1	1.182,98	Matthias Sturm (DE / BW)	1.036,01	1.002,5	116,95	Winzeln Schra... (DE / BW)	LSV Schwarzwald	ASW 27	08:15	17:22	i
2	1.172,60	Jürgen Wenzel (DE / BW)	1.035,70	1.003,5	93,42	Hilzingen (DE / BW)	SFG Singen	Ventus 2cM/1...	07:13	18:31	i
16	1.084,48	Peter Flosbach (DE / NW)	1.025,68	846,7	93,25	Wipperfuerth ... (DE / NW)	LSV Wipperfürth	Ventus 2cM/1...	07:52	19:05	i
13	1.103,95	Jo Schoeters (BE /)	1.022,82	1.006,6	93,43	Balen Kiekeuv... (BE /)	AC Balen Kiekeuvel ...	Nimbus 3DT	07:10	18:21	i
11	1.104,85	Robert Werts (NL /)	1.021,73	1.013,6	93,43	Baleno (NL /)	AC Baleno Zeevlieg C...	Nimbus 3DT	07:11	18:21	i
6	1.121,07	Alexander Spaeth (DE / BW)	1.019,27	862,5	106,32	Esslingen Jäg... (DE / BW)	AC Esslingen	Discus 2T/18...	07:02	17:46	i
4	1.144,44	Swen Holtmann (DE / BW)	1.015,74	910,5	98,88	Mannheim City (DE / BW)	SPV Mannheim	Stemme S10 /...	07:33	18:16	i
22	1.050,21	Edgar Leip (DE / HE)	1.014,40	959,5	97,61	Gelnhausen (DE / HE)	AC Gelnhausen	EB 28	07:02	17:55	i
20	1.054,73	Wolfgang Köckeis (DE / BY)	1.008,65	962,2	96,24	Donauwoerth (DE / BY)	SFG Donauwörth-Monhe...	Nimbus 4DM	06:56	18:33	i
32	1.020,76	Bernhard Braun (DE / NW)	1.007,02	828,4	88,61	Langenfeld Wi... (DE / NW)	LSG Erbslöh Langenfe...	ASH 25E ≥ 26...	07:42	19:23	i
27	1.031,68	Jürgen Wisbacher (DE / BY)	1.002,36	751,2	95,76	Fuerth Secken... (DE / BY)	AC Fürth	Nimbus 3/22,...	07:37	18:26	i
31	1.020,80	Edgar Kremer (DE / HE)	1.000,20	885,3	103,75	Huhnrain As (DE / HE)	GFS Wasserkuppe	ASW 22BLE	08:24	18:17	i

24 x 1000 km

Take off time of successful 1000er Pilots...

Christian Maex, Burg Feuerstein	6.49 Uhr UTC
Edgar Leib, Gelnhausen	7.02 Uhr UTC
Lutz Heydecke, Mannheim	7.10 Uhr UTC
Robert Werts, Venlo (NL)	7.11 Uhr UTC
Wolfgang Köckeis, Donauwörth	7.13 Uhr UTC

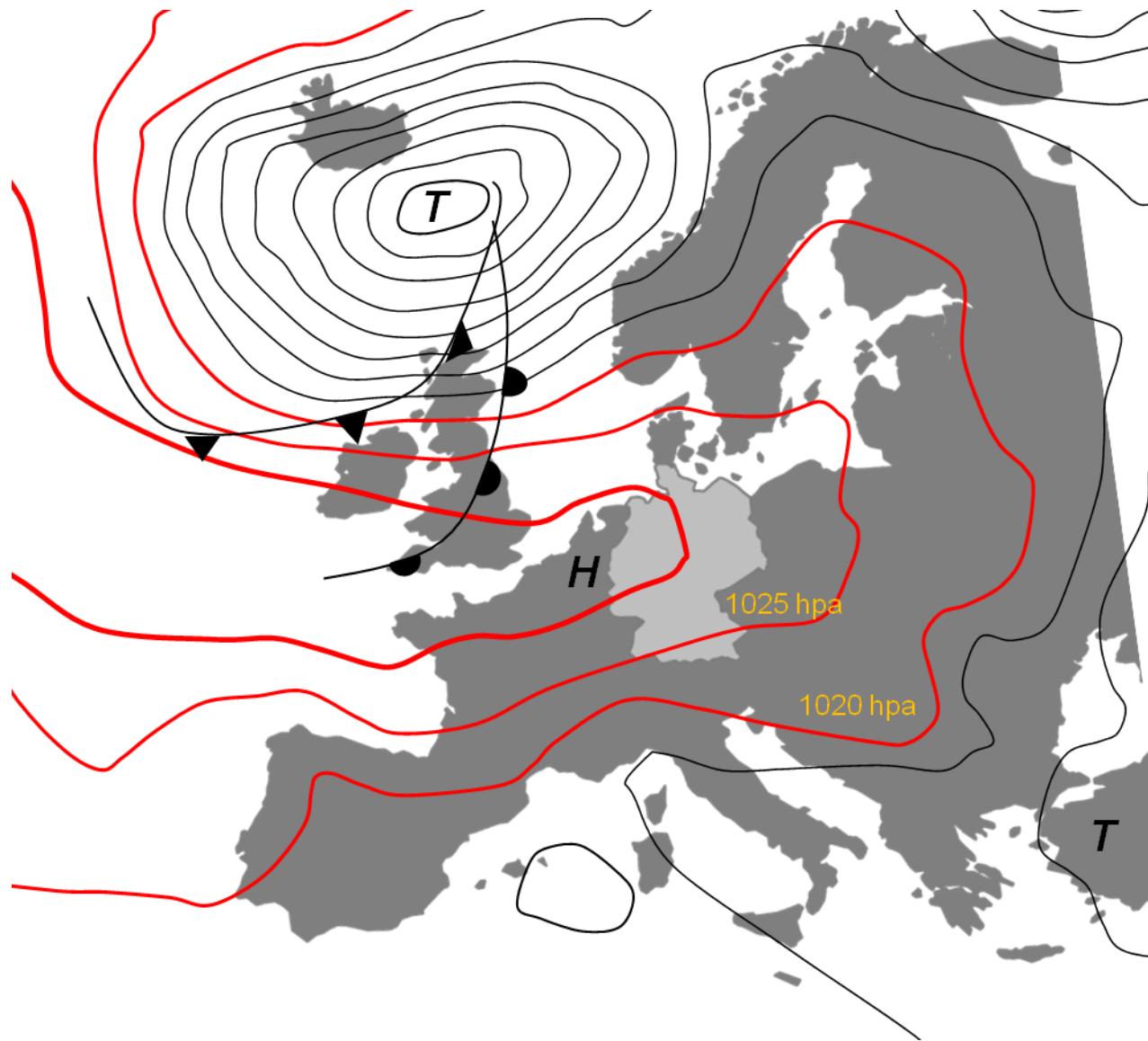
"Ich setzte den Fuß in die Luft und sie trug"

- Hilde Domin –

Kommentar im OLC von Jens Rickmer Bothe,
Start 7.21 Uhr UTC in Goslar, 1024 km auf EB 28

13.Mai 2012 **05.57 UTC**

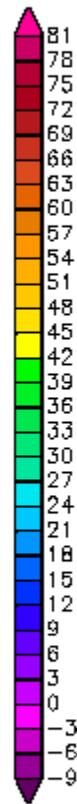
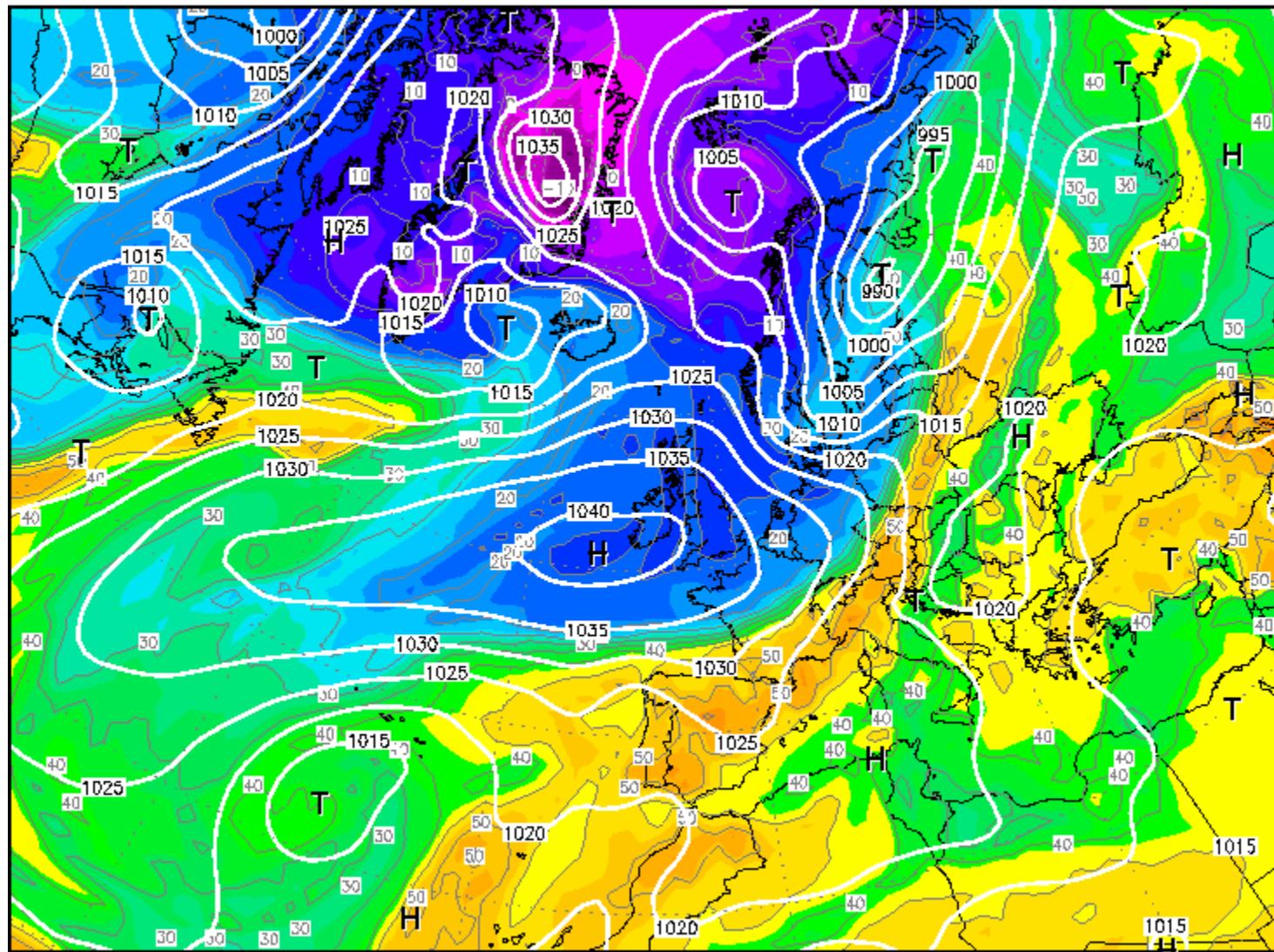
13. Mai 2012



Init : Fri,11MAY2012 06Z

Valid: Sat,12MAY2012 06Z

Bodendruck (hPa) und 850 hPa Aeq.Pot.T. (Grad C)

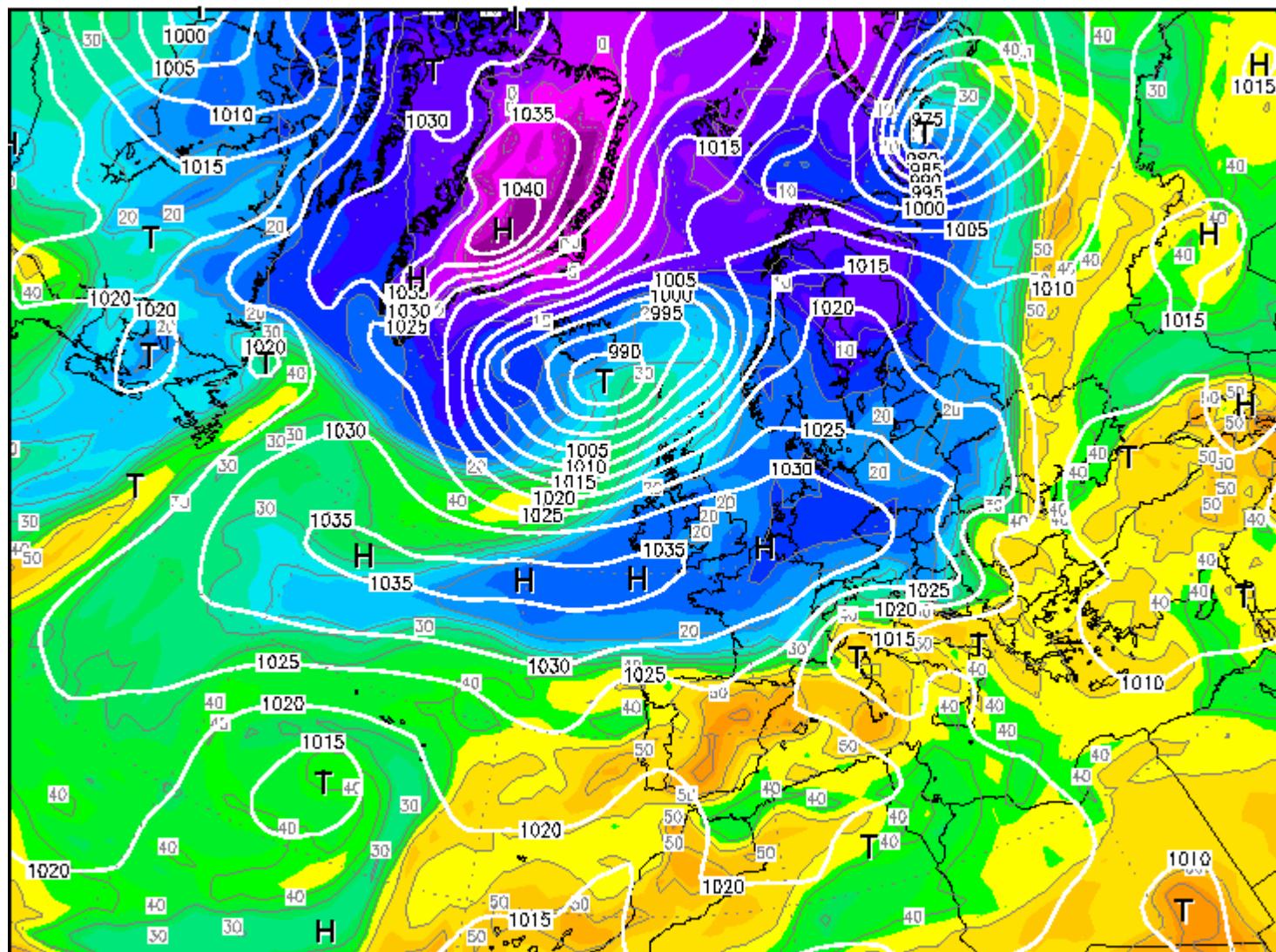


Daten: GFS-Modell des amerikanischen Wetterdienstes
(C) Wetterzentrale
www.wetterzentrale.de

Init : Sun,13MAY2012 00Z

Valid: Sun,13MAY2012 06Z

Bodendruck (hPa) und 850 hPa Aeq.Pot.T. (Grad C)

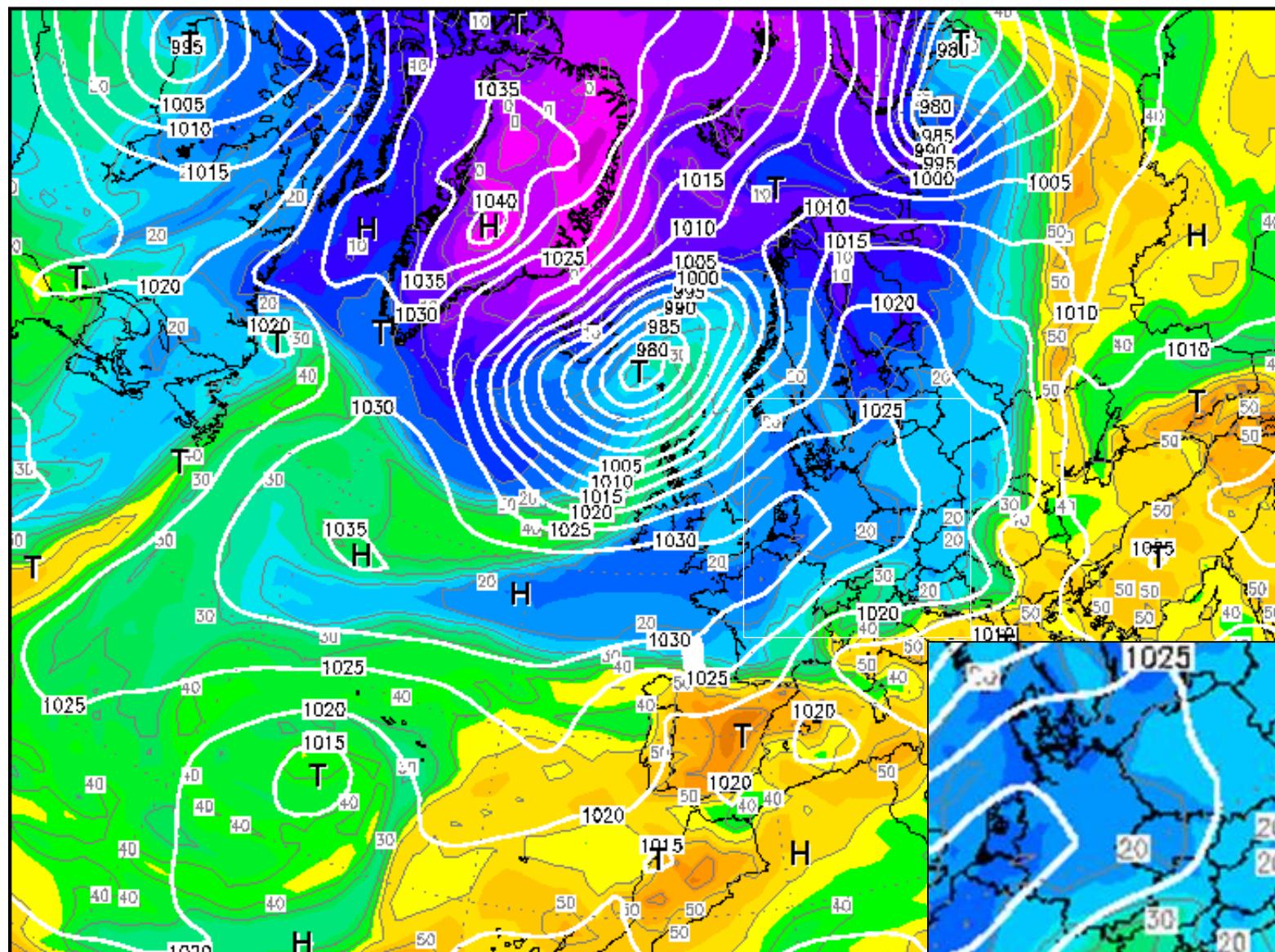


Daten: GFS-Modell des amerikanischen Wetterdienstes
(C) Wetterzentrale
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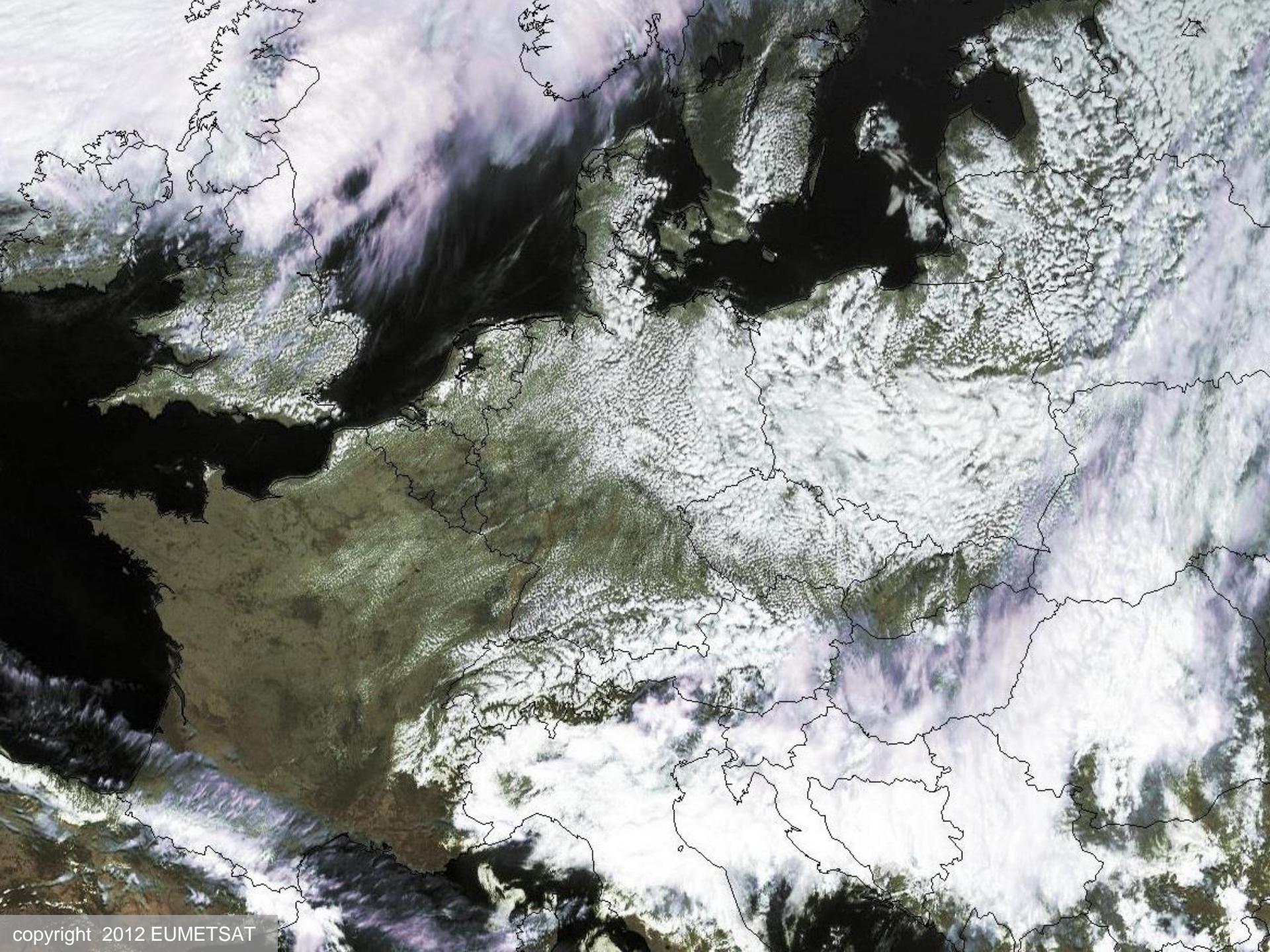
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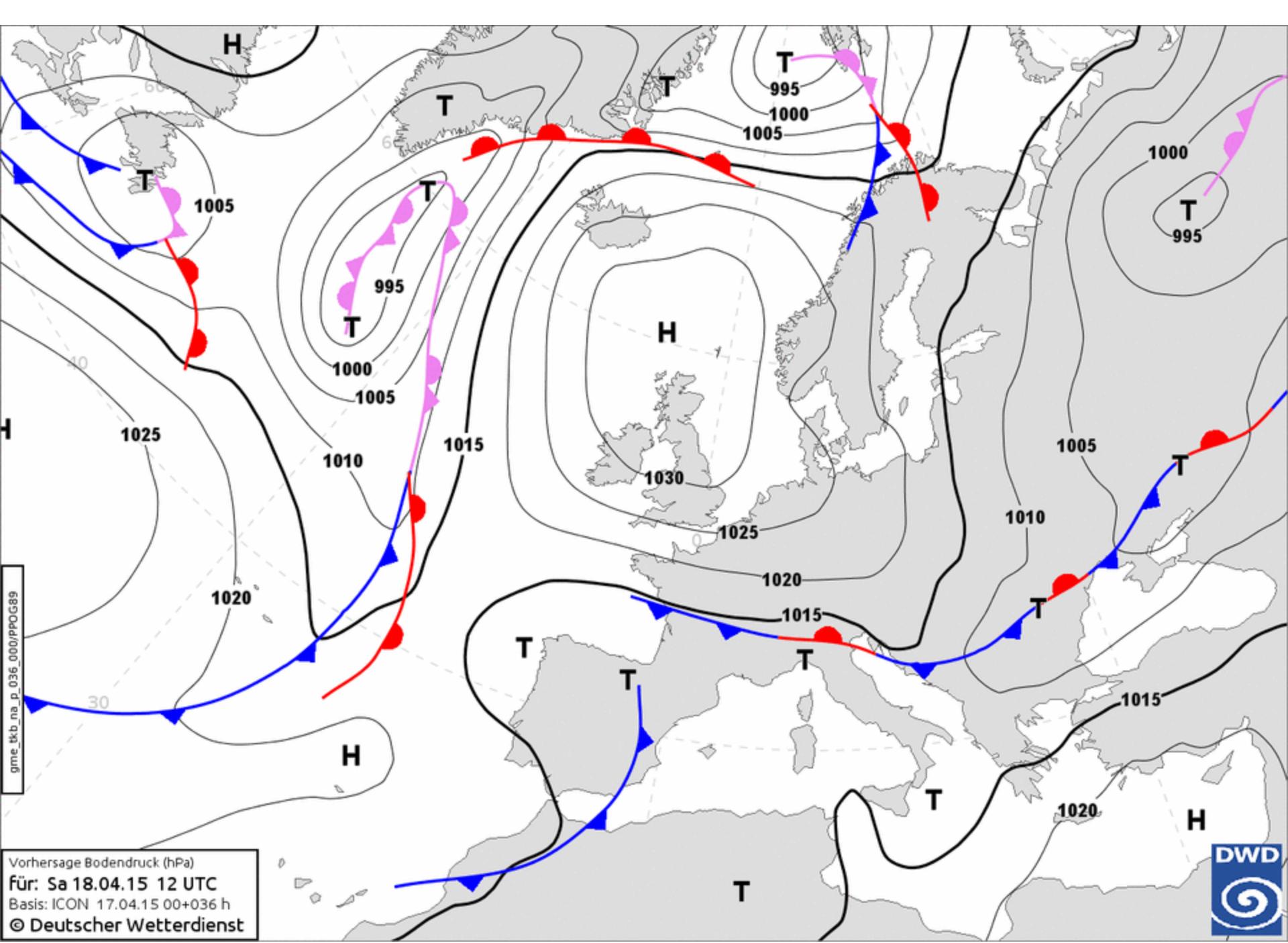
Bodendruck (hPa) und 850 hPa Aeq.Pot.T. (Grad C)



Daten: GFS-Modell des amerikanischen Wetterdienstes
(C) Wetterzentrale
www.wetterzentrale.de



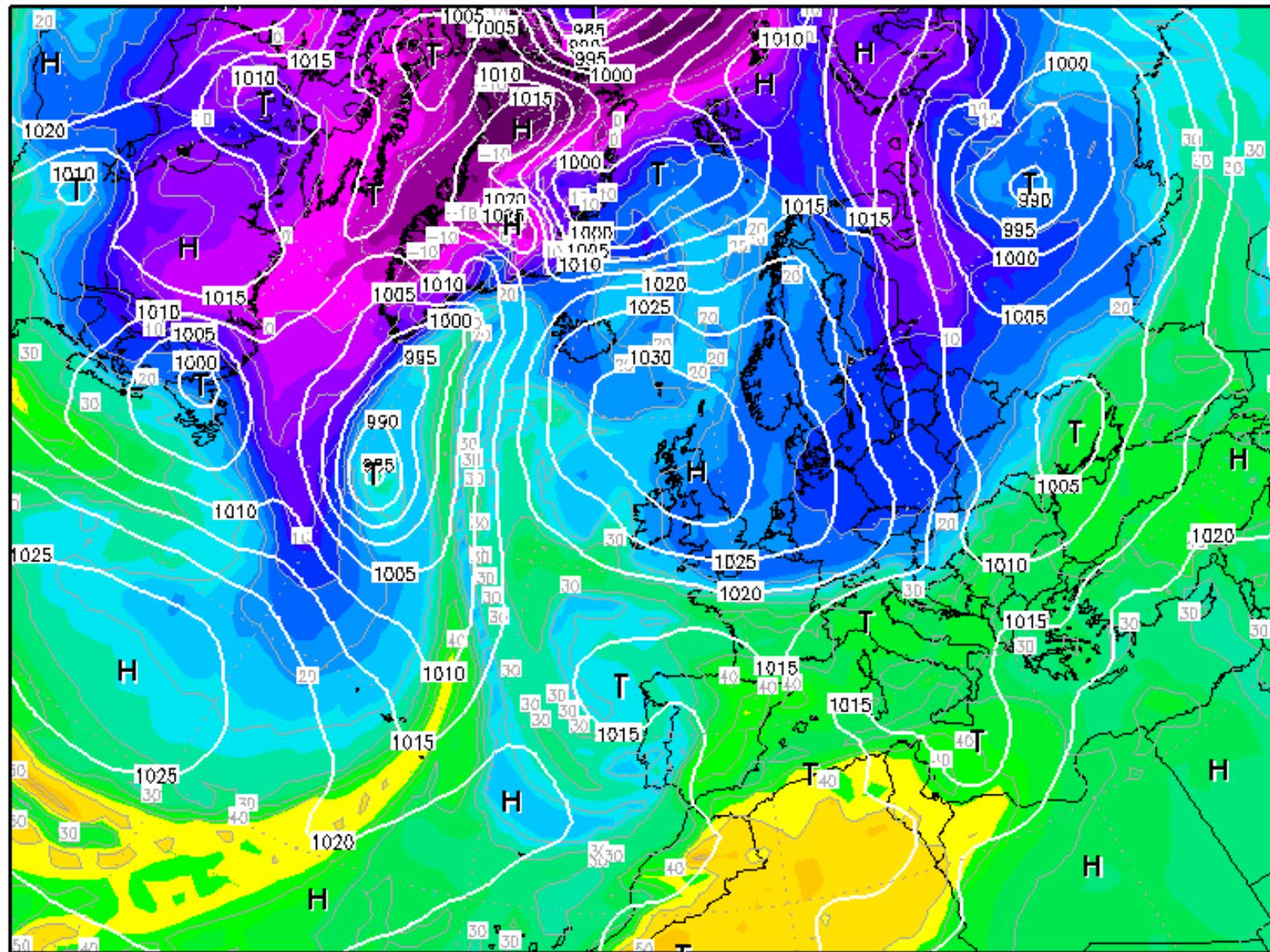
copyright 2012 EUMETSAT



Init : Fri,17APR2015 06Z

Valid: Sat,18APR2015 06Z

Bodendruck (hPa) und 850 hPa Aeq.Pot.T. (Grad C)

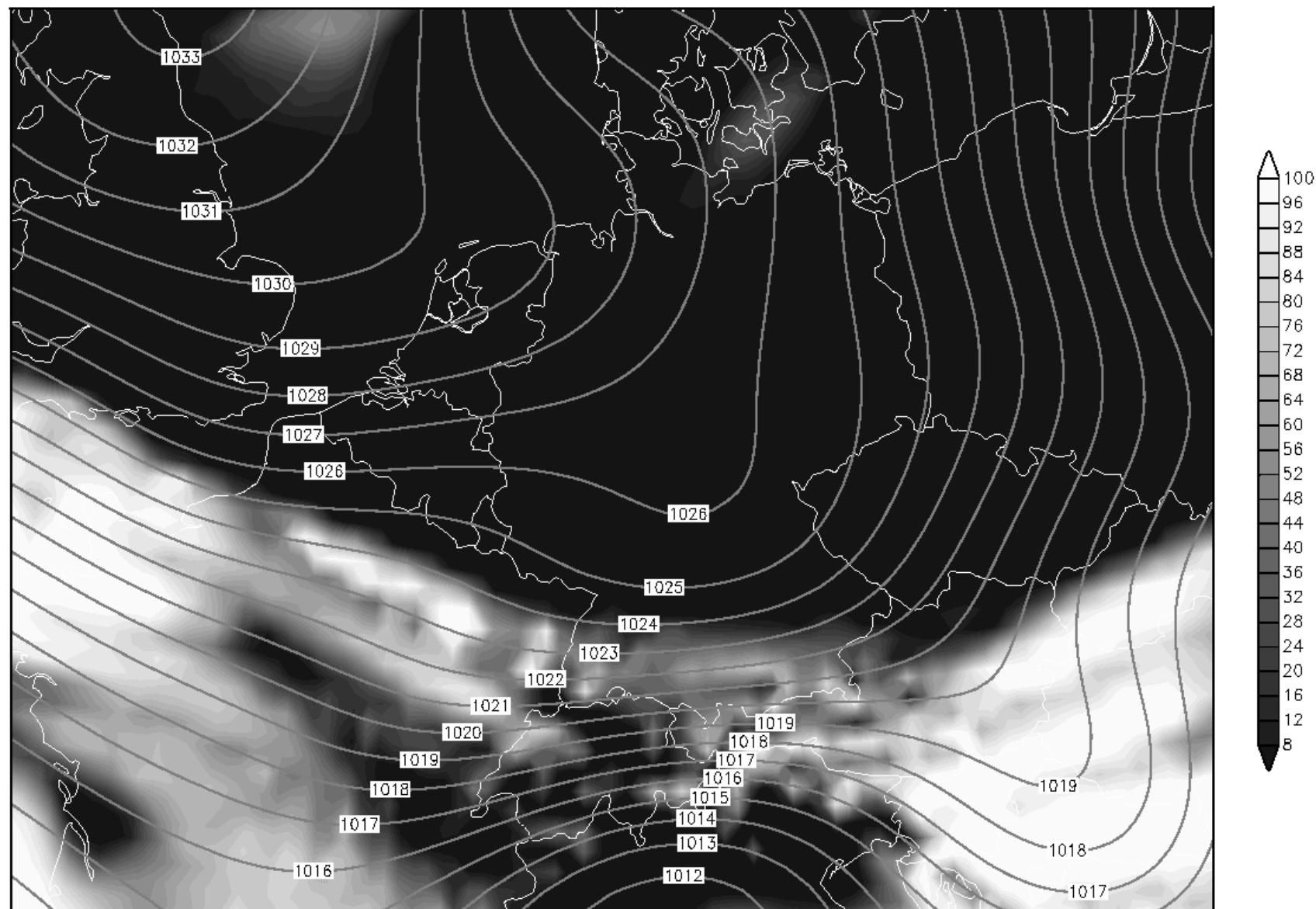


Daten: GFS-Modell des amerikanischen Wetterdienstes
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www.wetterzentrale.de

Init : Sat,18APR2015 00Z

Valid: Sat,18APR2015 09Z

Bodendruck, Hohe Wolken in %



Daten: NCEP GFS (0.25°)

(C) Wetterzentrale

www.wetterzentrale.de



18. April 2015, 8.10 Uhr lokal



18. April 2015, 9.30 Uhr lokal



18. April 2015, 10.34 Uhr lokal



18. April 2015, 11.59 Uhr lokal (Christophe Ruch)

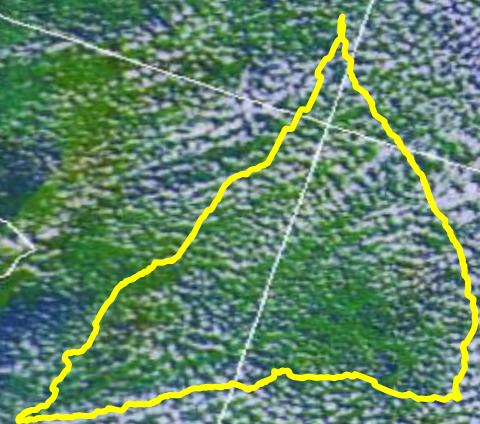


18. April 2015, 14.58 Uhr lokal (Christophe Ruch)

18April15 1214z noaa 19
Copyright: B J Burton

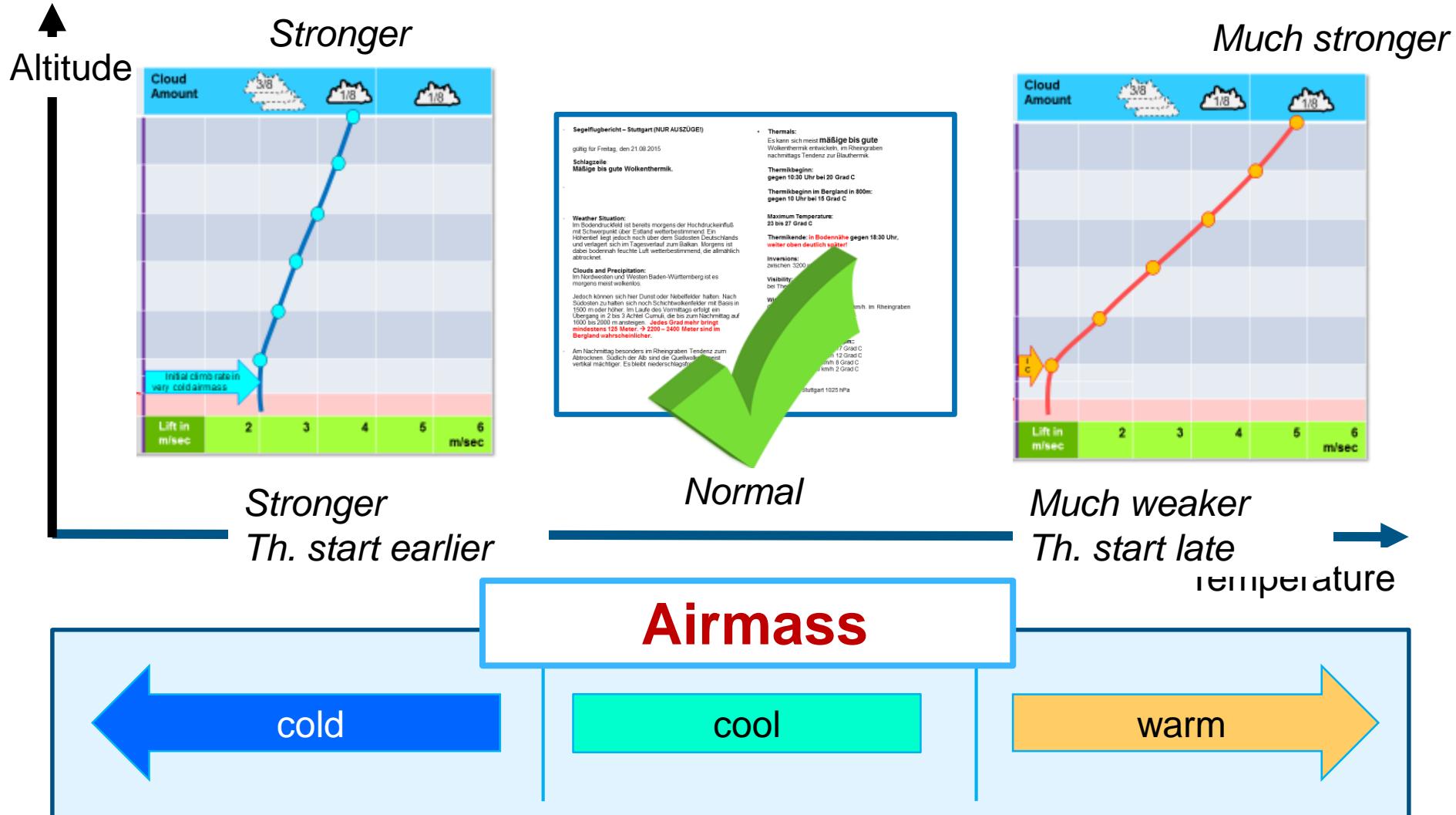
**14 x 1000 km
8 FAI Triangles**

z.B.
Flugweg:
Bert jr.
Schmelzer

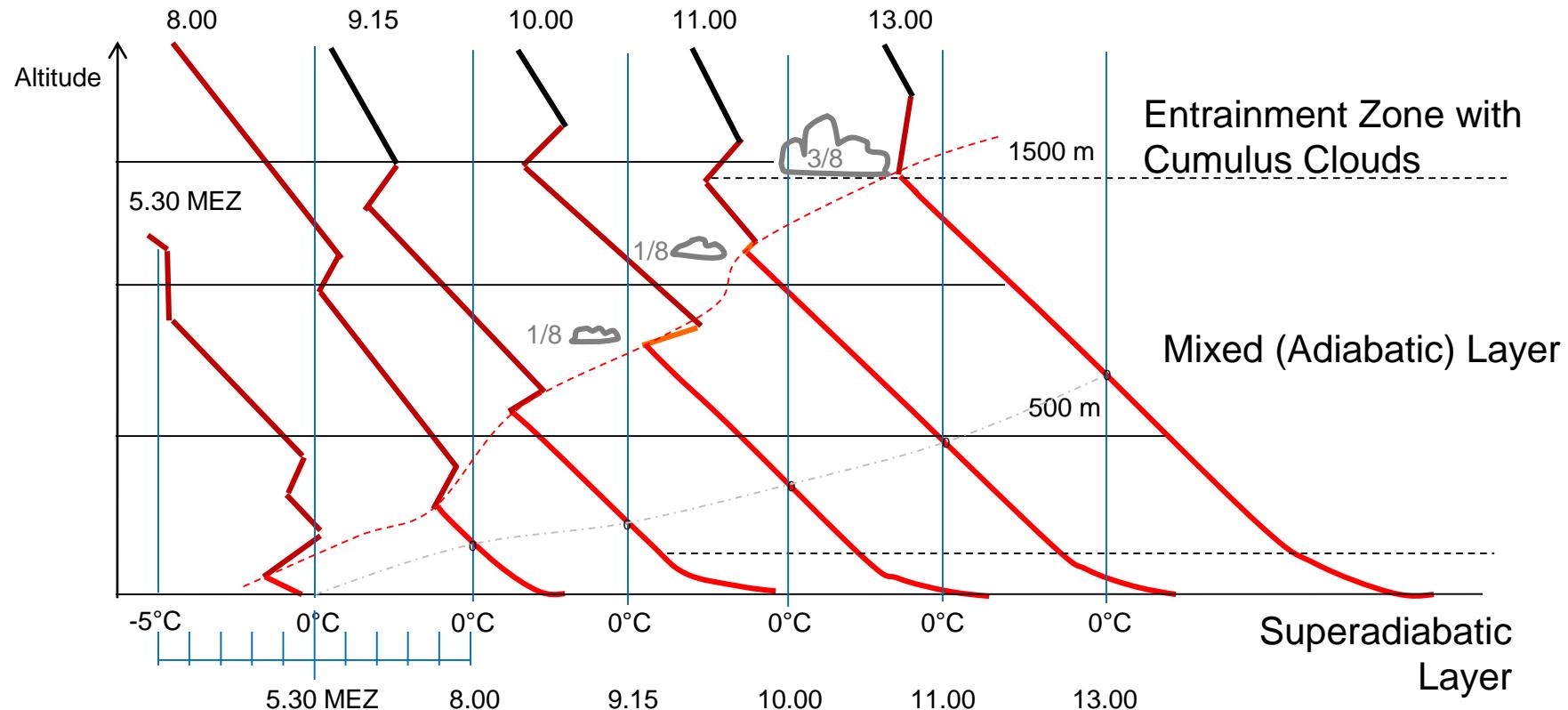


Gliding Weather Forecasts

Thermal-Profile in Comparison to Predictions



The Boundary Layer during the Day



Änderung des Temperaturverlaufs in den untersten 2000m der Atmosphäre am 26.04.74 in Meppen von 5.30 bis 13.00 Uhr. (Daten aus Beyer, Roth, 1977 – gefunden bei Müller, Kottmeier, 1984).



November
16,
2015

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21. August 2015 - 09.07 Uhr UTC (11.07 Uhr lokal)

- Segelflugbericht – Stuttgart (NUR AUSZÜGE!)

gültig für Freitag, den 21.08.2015

Schlagzeile:

Mäßige bis gute Wolkenthermik.



Nope! – Don't believe it -> down low difficult, closer to the top excellent thermals!

Weather Situation:

Im Bodendruckfeld ist bereits morgens der Hochdruckeinfluß mit Schwerpunkt über Estland wetterbestimmend. Ein Höhentief liegt jedoch noch über dem Südosten Deutschlands und verlagert sich im Tagesverlauf zum Balkan. Morgens ist dabei bodennah feuchte Luft wetterbestimmend, die allmählich abtrocknet.

Clouds and Precipitation:

Im Nordwesten und Westen Baden-Württemberg ist es morgens meist wolkenlos.

Jedoch können sich hier Dunst oder Nebelfelder halten. Nach Südosten zu halten sich noch Schichtwolkenfelder mit Basis in 1500 m oder höher. Im Laufe des Vormittags erfolgt ein Übergang in 2 bis 3 Achtel Cumuli, die bis zum Nachmittag auf 1600 bis 2000 m ansteigen. **Jedes Grad mehr bringt mindestens 125 Meter. → 2200 – 2400 Meter sind im Bergland wahrscheinlicher.**

Am Nachmittag besonders im Rheingraben Tendenz zum Abtrocknen. Südlich der Alb sind die Quellwolken meist vertikal mächtiger. Es bleibt niederschlagsfrei.



- **Thermals: weak till excellent**

Es kann sich meist ~~mäßige bis gute~~ Wolkenthermik entwickeln, im Rheingraben nachmittags Tendenz zur Blauthermik.



Thermikbeginn:

gegen 10:30 Uhr bei 20 Grad C
→ **12:30 Uhr**

Thermikbeginn im Bergland in 800m:
gegen 10 Uhr bei 15 Grad C



Maximum Temperature:

23 bis 27 Grad C

Thermikende: in Bodennähe gegen 18:30 Uhr, weiter oben deutlich später!



Inversions:

zwischen 3200 und 3500 m

Visibility:

bei Thermik 20-40 km

Wind:

Ost- bis Nordostwind mit 5 bis 10 km/h. Im Rheingraben aus Nord, nachmittags bis 15 km/h.

Freezing Level: 3400 m

Wind and Temperature at 2 pm::

1000 m 060 Grad 10 km/h 17 Grad C
1500 m 060 Grad 10 km/h 12 Grad C
2000 m 070 Grad 10 km/h 8 Grad C
3000 m 040 Grad 20 km/h 2 Grad C



QNH:

um 07 Uhr in Stuttgart 1025 hPa



November
16
2015

10.03 Uhr UTC (12.03 Uhr lokal)

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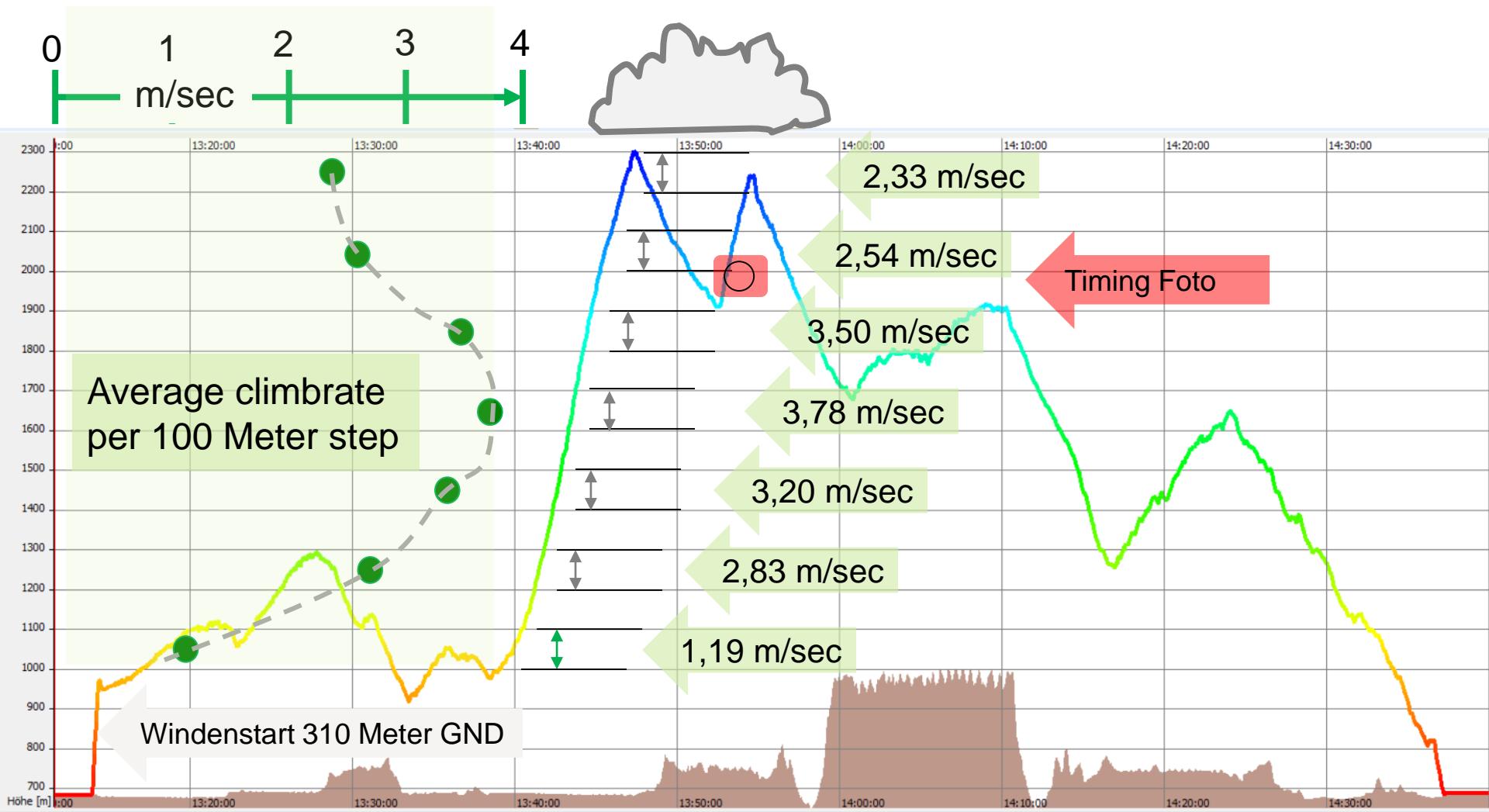


10.53 Uhr UTC (12.53 Uhr lokal),
Flugplatz Donaueschingen



12.47 Uhr UTC (14.47 lokal)

Short cross country intro with ASK 21, The first good lift (15.40 Uhr local)!





Notauszug!

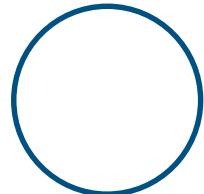
- Beide seitlichen Verschlüsse nach hinten ziehen und Haube nach oben wegdrücken.
- Anschlagrolle lösen.
- Aufrichten und ausschießen.
- Bei manuellem Fallschirm Auslösungsfest fassen und nach 1-3 sec. voll durchziehen.

-8979

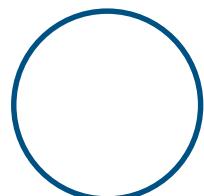


16.07 UTC (18.07 Uhr lokal)

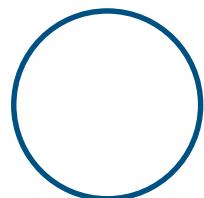
Question to the audience ...



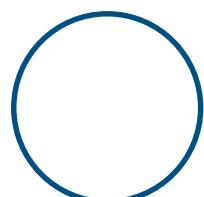
Perfectly understood,
makes sense



Mostly understood,
but questions



Did not understand,
serious doubts



Thinks it's nonsense
or complete bullshit



i
c

Thank You – and Good Luck in 2016!

