009. 1250KM FROM BRETAGNE TO THE LOWER SAXON HILLS.

Tijl Schmelzer – aboutgliding.com

. An interesting idea*…

In the Winter of 2011 I started preparing seriously for flying 1000km from Flanders. The idea was to create the perfect task for exploiting the large coal powerplants of the Rhine-area to extend the thermal day, inspired by the performances of Wilfried Großkinsky. That plan that was then executed twice during the following 2012 season (the Cloud Making Machines), and multiple times in the years that followed.

But before those powerplant flights took place, all that preparation in 2011 and the subsequent monitoring of weather forecast for suitable conditions in the early spring of 2012, led to a surprise opportunity to follow in the footsteps Hans-Werner Grosse, with a 1000km straight distance flight to the South of France.

The analysis after that flight showed that there could have been an opportunity to connect to the wave on the Southside of the Pyrenees. And thus, there was a possibility to significantly increase the length of such a flight. Unfortunately, since then the weather was never as good as it was on that day in 2012. There were a few days with similar circumstances, but always something was a bit off. Either too much moisture in the air (most often in the Ardennes or at the Northside of the Pyrenees), or too little moisture in the air (in the Mid and Southern part of France), or too low windspeeds, or wind conditions not suitable to produce wave, or bad weather on the southside of the Pyrenees. I was ready to depart on 2 occasions but cancelled last minute due to the weather.

***tip: if you are not that interested in the theoretical concept and plan behind the flight, skip to page 8.**

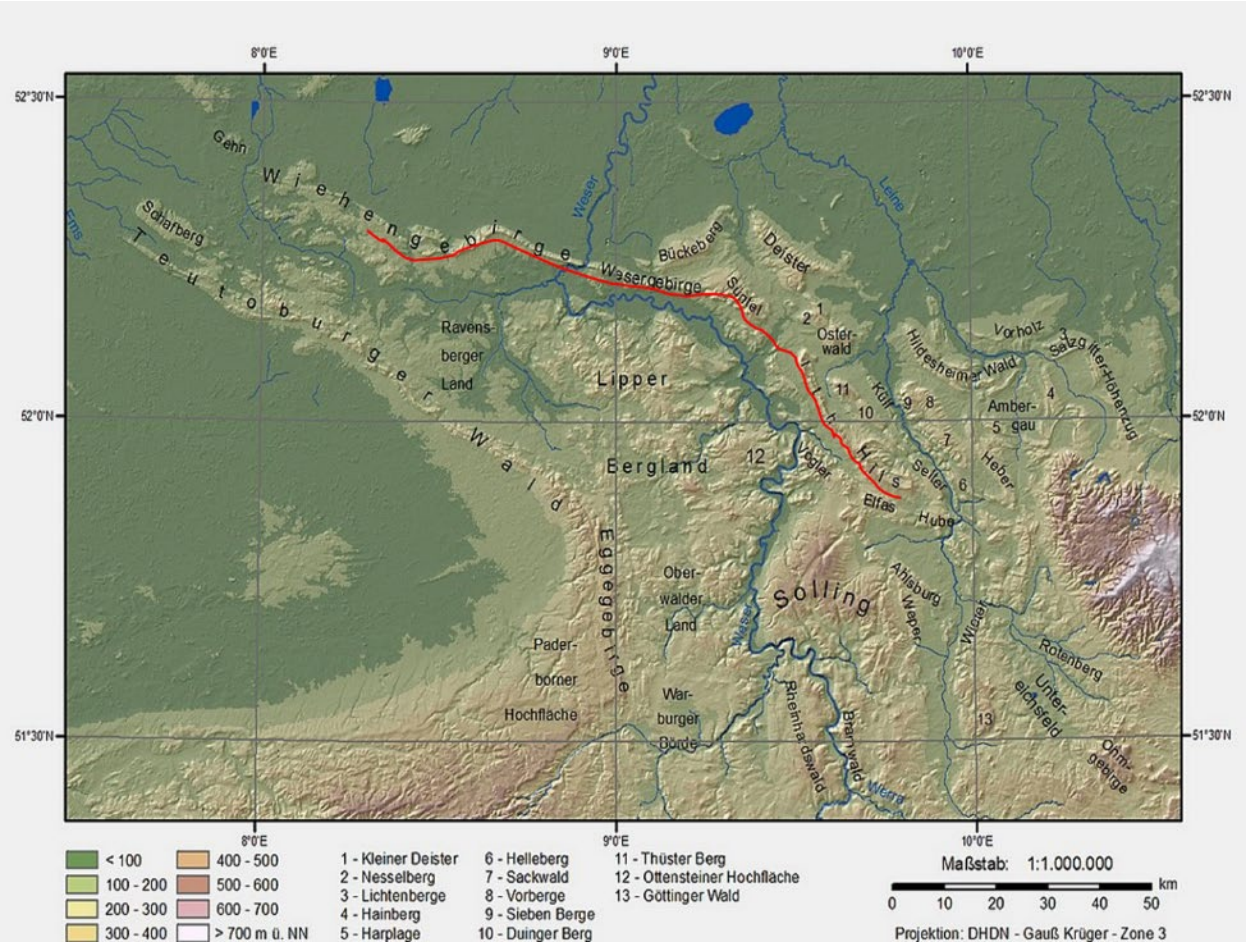
But those experiences led me to another idea: are there other ways in our region to increase our flights beyond the thermal part of the day, and combine them with a downwind dash?

And this search then quickly led to the long low ridges of the Lower Saxon Hills near Hanover.

The Lower Saxon Hills
(Niedersächsisches Bergland / Weser- und Weser-Leine-Bergland)

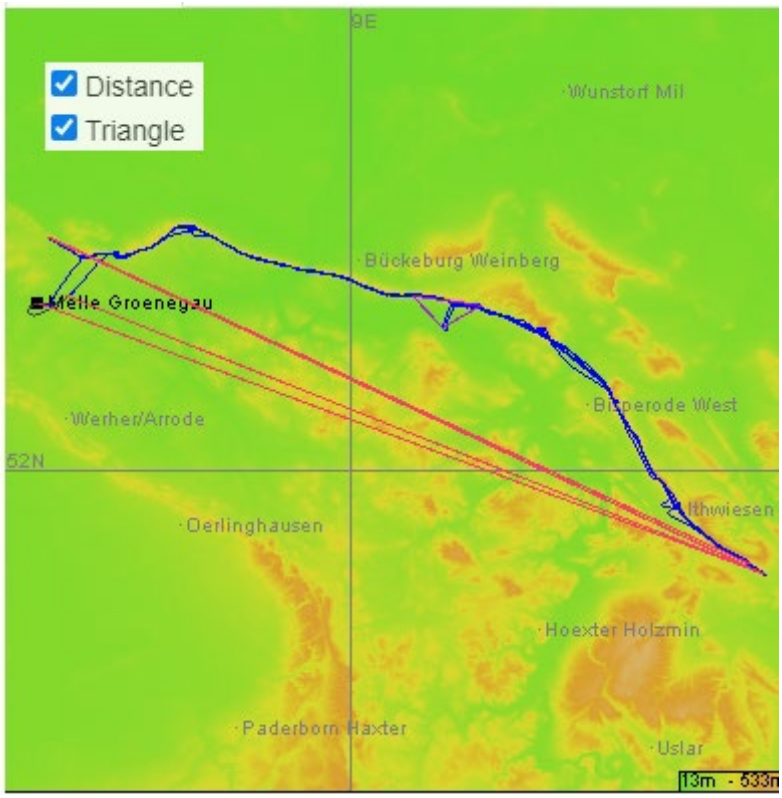
The Lower Saxon Hills between Bielefeld and Hanover are a famous gliding region in the center of Germany. It is a good location to fly all year around with the variety of low-level hill soaring as well as sometimes decent thermal soaring conditions, and even wave flying. Gliding history goes back there for almost 100 years, and there are a lot of airfields and glider clubs. A group of enthusiastic pilots has done a lot of research in this region, some of which you can find here: https://www.schwerewelle.de/

The most pronounced ridgeline is the continuation of the Wiehengebirge, Wesergebirge, Suntel, Ith, and Hils (marked by the red line on the map). It is a bit over 100km long, and hundreds of pilots fly on those ridges every year, especially in the fall.



Of note on this ridge are Porta Westfalica (the Gate to Westfalen), which is an historically strategically important small steep gap in the hill marked by the Kaiser Wilhelm Monument on one side and a large TV tower on the other side. For gliders more important is the larger gap by Hameln (the city of the Pied Piper), which requires a bit of extra altitude to safely cross.

The ridge works extremely well with a steady strong SW-wind. A good example of a flight optimally utilizing the ridge line on a good windy day is the flight of Daan Spruyt on 17.02.2020 (6leg 632km with 108.5km/h).



Incorporating the Lower Saxon Hills into a thermal flight.

The local pilots have used the hills in the evening to stretch their cross-country flights plenty of times, and some people have purposefully flown to them from further away.

But how to stretch this to its logical extreme?

Northeasterly Wind

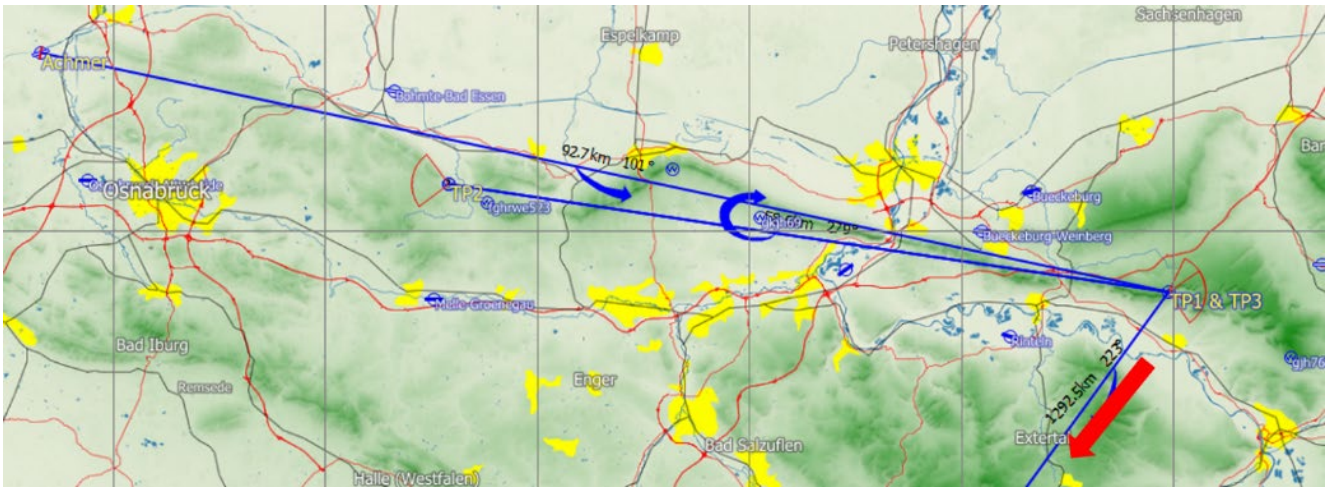
The first idea was to see if there was a way to use the slopes with the classic northeastern wind weather in early spring that enables the flights towards the south of France.

This weather is caused by a high-pressure area over the UK, and a low-pressure area to the south east. The incoming air mass, preceded by a cold front, directly comes from the North pole region and is cold and relatively dry. It gives excellent soaring conditions in Northern Germany and the Benelux. Cumulus clouds are clearly defined, and climbs are crisp and strong. Most often windspeeds are not that high, but in early spring sometimes they can be.

The Lower Saxon Hills are rarely used with this type of wind. The Suntel region is not shaped well for ridge running on its northern slope, and thus creates a blockage in the middle of the ridge. This reduces the length of the possibly legs to 60km or so.

But still, it could be a useful solution. Placing the startline at the airfield of Achmer, then placing 3 legs over the ridges, would result in 210km on the ridges before thermal activity starts. Then you have about 1300km to the valleys in the Pyrenees just south of Biarritz, enabling as a theoretical maximum a 3TP 1500km flight. Adding 2 more legs of 60km would make it a possible 1620km 6leg OLC flight.

I think this should be achievable, but this weather is very rare.



Southwesterly Winds

The Southwesterly wind constellation is the opposite of the Northeasterly wind conditions: a low-pressure area over the UK and a (most often weak) high pressure area to the south or south east. The airmass, preceded by a cold front or occlusion, also (often) comes from the polar region but takes a detour via Atlantic Ocean and takes up a bit of temperature and humidity.

The higher humidity creates stronger rain falls during the passing of the frontal zone, which delays thermal development. The higher humidity and lower pressure also cause more overdevelopment, and when it is flyable, thermals are often much choppier, often weaker, and less easy to center.

The Southwesterly situation in our region is thus less loved in glider pilot circles, but I think it is a bit underappreciated. I have now flown a couple of 1000km flights in them, and one has to take its weaknesses with its strengths: southwesterly wind conditions occur much more frequently than Northeasterly conditions, and especially so in June during the longest days of the year. And if the overdevelopments are limited, a long narrow stretch of hundreds of kilometers can be flyable for gliders. In 2013 I witnessed a day that was flyable from Nantes to Gdansk with a strong wind and long cloudstreets.

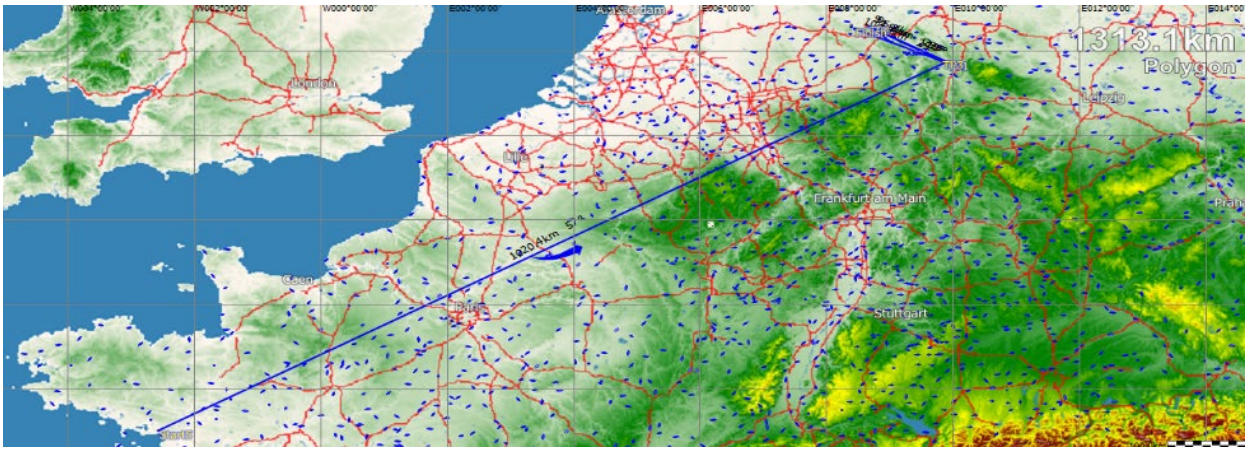
And, as a plus for downwind dashes, windspeeds are often higher than for northeastern winds.

However, there is another downside to these conditions. Flying a downwind straight distance flight with a westerly wind, means flying towards the east and thus against the movement of the sun. And thus, you are losing flying time. On a 1000km flight at our latitude, you lose about 1 hour.

For the most often used Lower Saxon ridgeline, southwesterly winds are perfect. However, when the wind is more from the West than from the Southwest, the most western part from the ridgeline gets very tricky. More on that later.

From the Atlantic Ocean to the Lower Saxon Hills

Probably the best route for this strategy is taking a start point near the Atlantic coast between Nantes and Brest in Bretagne, and then flying around Paris through the Ardennes in Belgium towards Germany. The downwind leg is a bit more than 1000 kilometers long, and then you can fit 3 legs of about maximum 300 kilometers over the slopes, which gives a combined 1300+km 3 TP distance (stretched to the absolute max, it is 1410km). With a start at 9.30 and finish at 22.30 (legal daylight runs out at 22.37 in Hanover), one would need an average speed of just 100km/h. This would mean a 108km/h on the downwind thermal leg, an arrival at the slopes around 18.45, and then an average speed of 80kmh on the slopes. With good circumstances, that is very manageable. And thus, you have plenty of time to complete this flight.



This could then be extended with 2 X 110 kilometers legs on the slopes for a 6leg 1530 kilometers OLC flight (1620km at the very max), which would require a 118km/h average speed, with 130km/h on the downwind leg, and 100km/h on the slopes, with a landing at 22.30 in Bohmte Bad Essen or Melle Groenegau airfields.

Airspace on this route is manageable, even during the week, but it does require a 45km Southern detour around Paris. The best route would be straight over the Eiffel Tower, but unfortunately that is not allowed.

The optimal wind for this flight is a bit tricky. You need WNW winds in Bretagne, so not to be affected by sea breeze in the morning. Then, between Rennes and Paris, the wind should quickly turn straight westerly, and from the South East of Paris, it should turn WSW. Finally, in the evening around Kassel, the wind should turn to SW, so the slopes are usable over the full length. It is asking a lot, but a curvature of the low-pressure area over the UK makes it quite possible to happen in exactly this fashion.

For me personally, I am quite familiar with most of the regions of this flight. This makes it a lot easier.

Or from the Lower Saxon Hills to Eastern Europe

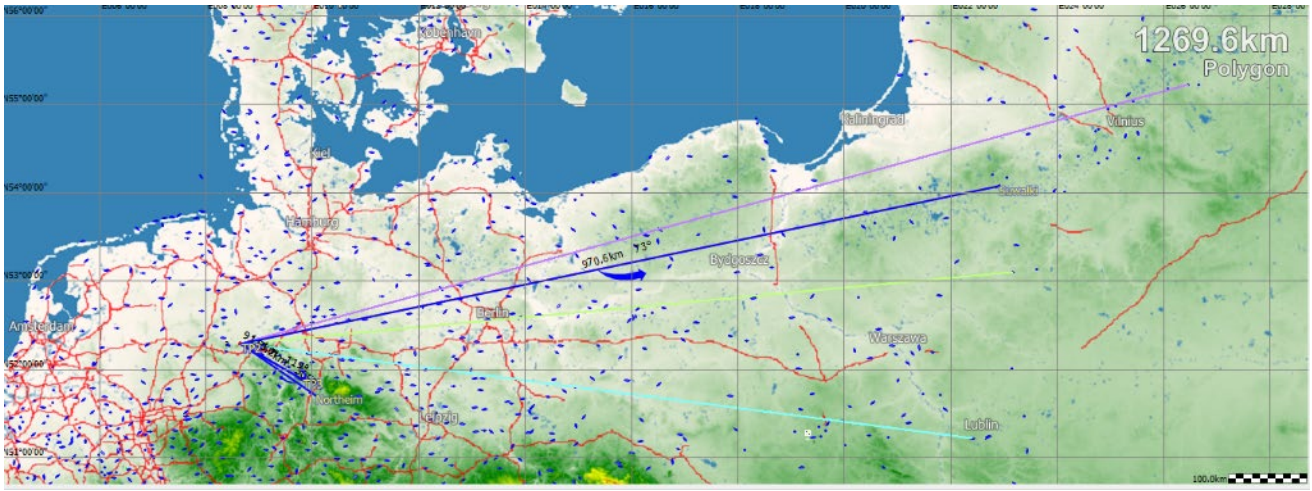
The second option with this westerly wind situation, is using the hills in the morning, and then continuing when thermal activity sets in for a downwind leg towards Eastern Europe.

For the finish point there are various options depending on the weather:

- The East of Poland, near Lublin (tricky airspace, and rather unlikely suitable SW winds on the Lower Saxon Hills would be accompanied with WNW winds for this downwind leg).
- Bialystok (some airspace concerns, especially in the week, but often a good location weather and wind-wise).
- Suwalki, in the NE of Poland, near the Kaliningrad and Lithuanian Border (most likely option weather, wind and airspace wise).

All three options would give a 3TP 1300km distance, with 400km+50km on the ridges in the morning, and just 900km of thermal downwind flight. This requires 90km/h on the Lower Saxon Hills, and just 90km/h on the downwind leg, with a finish at 19.30.

The Suwalki option could be extended into Lithuania, where you could reach a 3TP 1500km (400km+50km on the slopes, 1100km thermal downwind dash). This requires again 90km/h on the Lower Saxon Hills, and 116km/h on the downwind leg, with a finish at 19.00 CEST / 20.00 Lithuanian local time.



Since you can take off in the Hanover region at 4.12 local time during the longest days, you have about 5 hours before thermals set in. In the best of circumstances this gives sufficient time to do 2 extra legs on the Lower Saxon Hills, for a total of 6leg 1500km OLC if you reach Suwalki, and a max of 1700km if you can extend into Lithuania. For the last option, you would need 108km/h on the ridges and 129km/h on the downwind leg. Definitely high, but not unrealistically impossible.

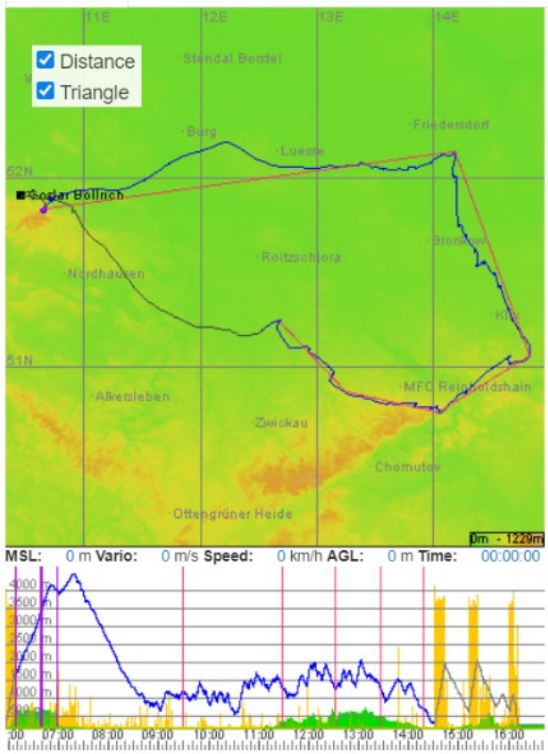
However, a key hurdle for this flight, is that you catch up with the front too soon, and your continuation to the east is blocked by bad weather. That is a major limiting factor to this plan. For instance, if the front passes through around 2.00 at night, the front must move at a pace of 65+km/h to clear the area for a 3TP 1500km flight.

The Harz-wave?

Just east of the Lower Saxon Hills, you can find the Harz. This mountainous area is a bit higher and more massive than the hills, and with westerly winds it can produce wave reaching 5000m.

Some people have achieved the jump from Ith-Hils into the Harz-wave to the east. If one would be able to do that on that, you have a 2 options to use that altitude: either increase the length of the dynamic legs, or already fly downwind with a strong tailwind and catch the first thermals 200km downwind towards the Polish border.

This has been pioneered by Jens Rickmer Bothe on his flight of 21.04.2012.



It is a very interesting concept, but you catch up with the front soon, and the usefulness for a downwind dash seems limited.

The other idea (using the wave to extend the hill legs), could be useful. But the notorious difficulty to make the jump from Ith into the Harz, the time wasted, and the fact the wave isn't always there on good ridge days, makes it doubtful that this could be successfully included in the plan.

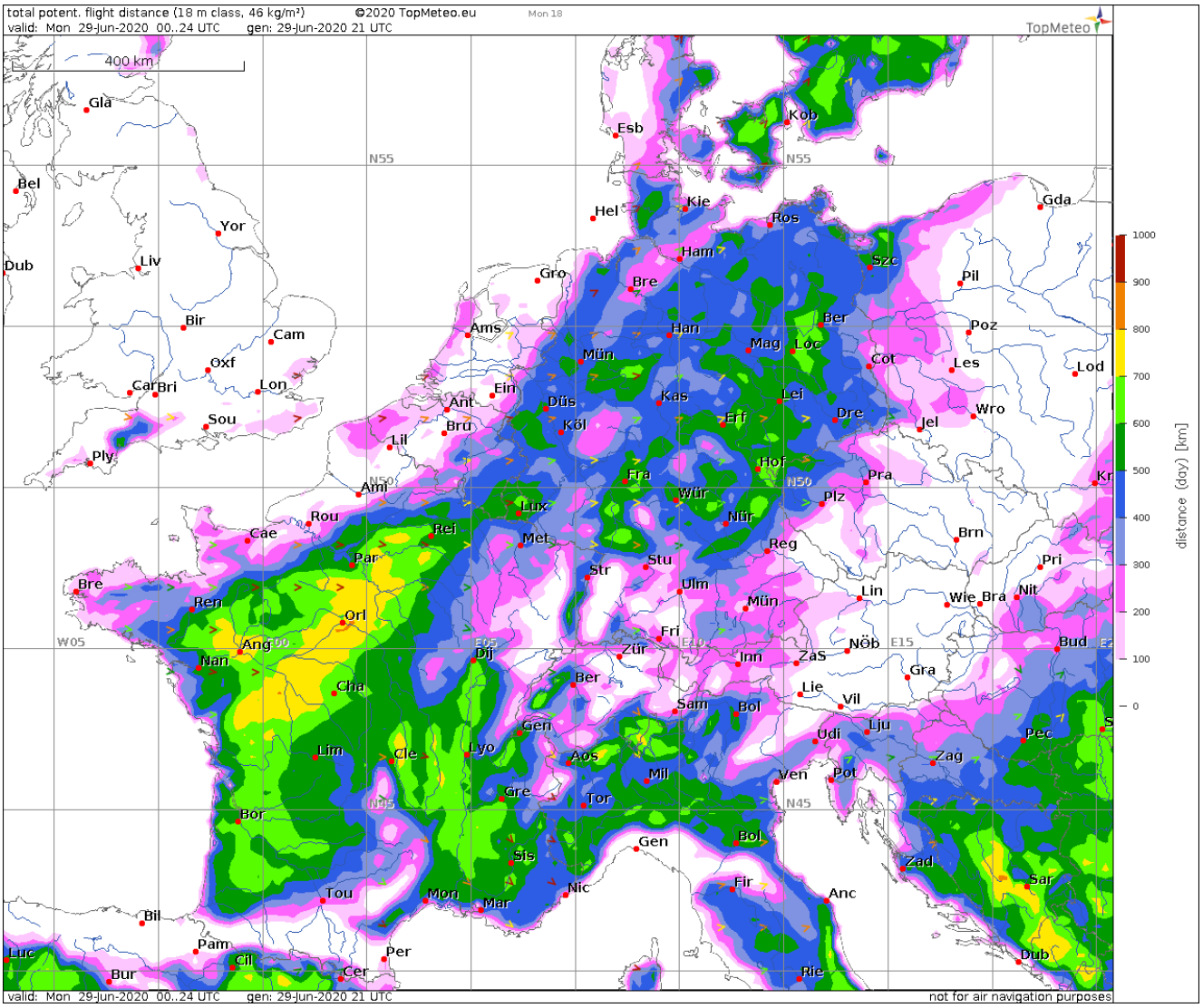
Saturday forecast for Monday 29/6 and Tuesday 30/6

This flight is a logistical challenge.

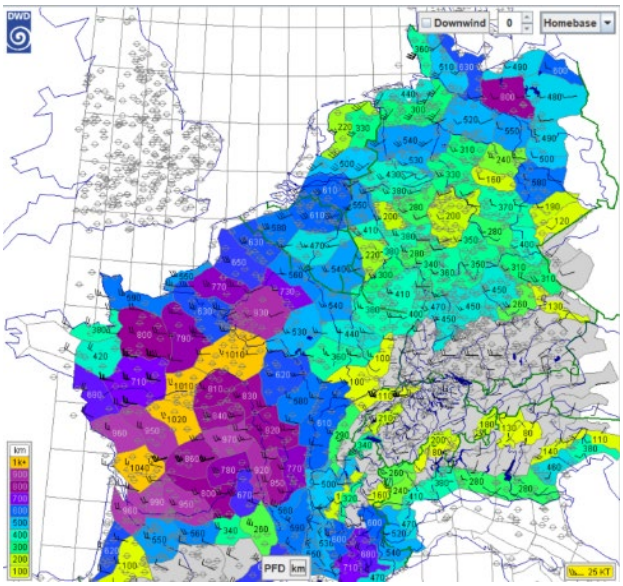
Only if the weather forecast is extremely promising and reliable looking, I would ever try to undertake it.

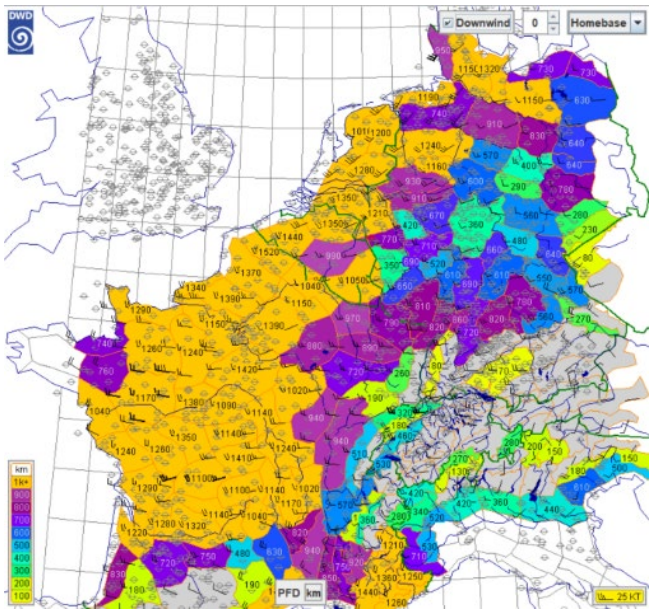
Since 2013 I monitored the forecasts for suitable days, but most often the weather windows where too narrow, and the risk was thus just too high compared to the effort to try it out. Hindsight analysis showed that 1250+km would have been possible on some of these days.

On Saturday 27/6 I looked at the weather forecast (which I sadly forgot to take a copy from). The forecast for Monday 29/6 looked almost perfect, ticking all the boxes for the Atlantic Coast to Lower Saxon Hills option.



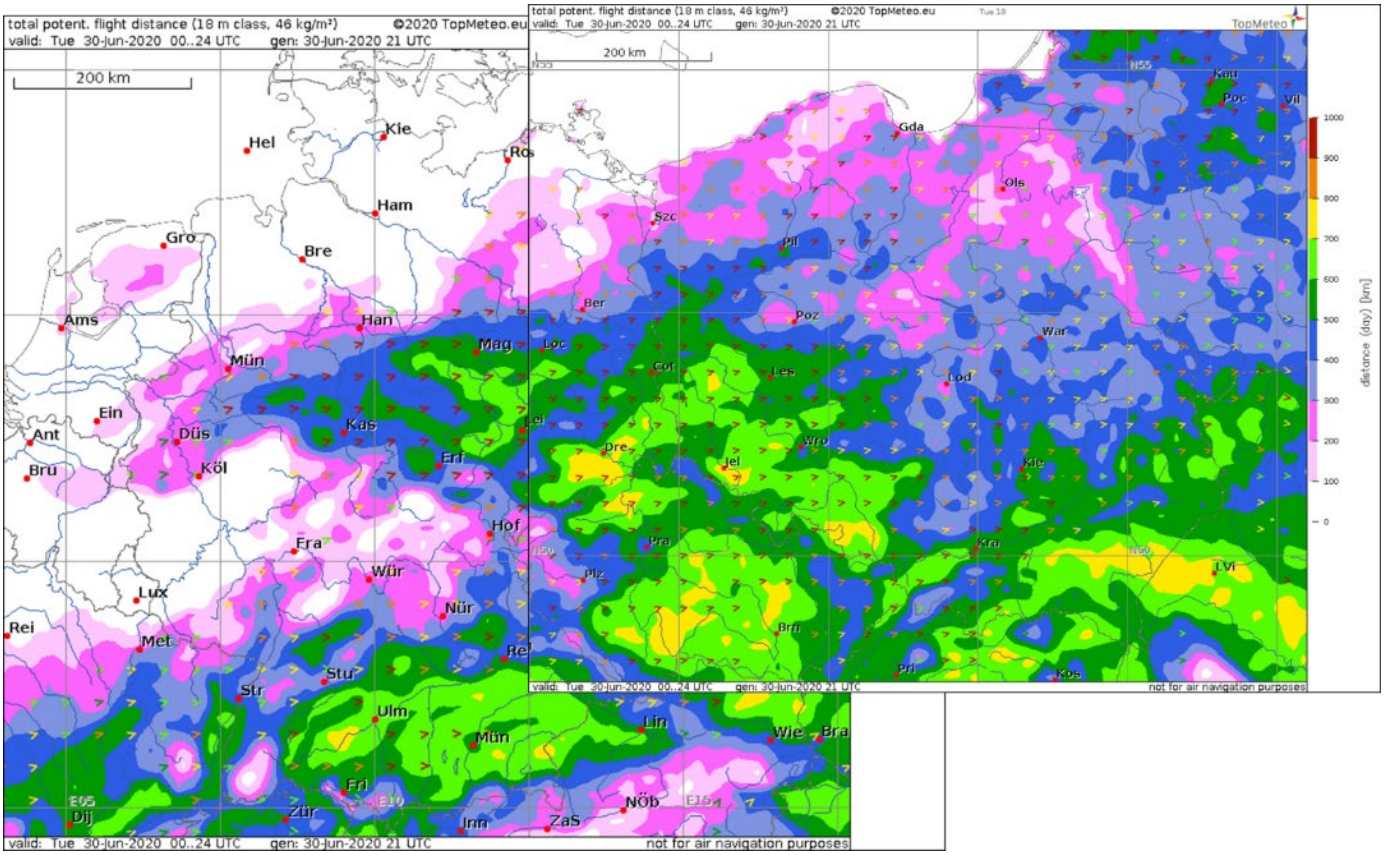
The original Saturday weather forecast for Monday looked even a lot better.





PFD with the magic button off... *… and on.*

But the forecast for Tuesday 30/6 looked excellent for the Lower Saxon Hills to Suwalki/Lithuanian Border option:



Which one to choose?

The Atlantic Coast version looked the most promising and reliable, and the logistics are a lot easier and strain on the crew are thus much more limited.

I thus opted for that alternative, keeping the other one as a possible backup plan.

Using the forecast generated on Saturday, I set out the 3TP 1301km task, with the option of adding 2 more 110km legs for a 1522km 6leg OLC distance. This flight would have been a 1250km badge, the declared 3TP Belgian distance record, and improve the free straight distance Belgian record to 1025km.

With the Saturday-forecast, I rated this as a very realistically achievable performance.

Organizing at short notice, and finding a hosting aeroclub in Bretagne

Now for the hard part: putting some calculations and lines on a map into reality.

The first step was asking my parents if they were prepared to spend 2 days on the road crewing for this adventure. They have been aware of this plan for years now, and thus had everything ready to go in their minds if the day would come.

As usual they enthusiastically agreed.

The glider, a Ventus 3T, is always ready for take-off. We just needed to top-off the fuel tank with a liter or so of Avgas.

When we went to our airfield Balen-Keiheuvel to pick it up on Saturday late in the evening, a few club members were still lingering in front of the hangar. A friend jokingly asked: “Picking it up for another 1000km?”.

The Sunday morning was spent with trying to get in touch with the only 3 glider clubs that could give me an aerotow in the area of interest in Bretagne.

I got in contact with Philippe de Péchy, member of the French national gliding team since many years. He is very active in his club Planeurs d'Ille-et-Vilaine, located on the airfield of Rennes Saint-Sulpice-des-Landes.

I called him up, and I explained the request for an early tow at 8.45 in the morning to a startline 85km to the west of their airfield.

Philippe was immediately enthusiastic, and said we were more than welcome. He planned on flying cross-country as well that day with his Arcus M together with his father Gérard, who is Vice-President of the club, his 16year old son Clément in their JS1c, and his 17year old cousin Anton in the ASG29 from the club. They were happy to host us, and a long tow early in the morning would be no issue with the Dynamic. He shared lots of important info, and even drove to the airport to take some pictures of how we could enter and park late at night and said they would be on the airfield next day at 7:15.

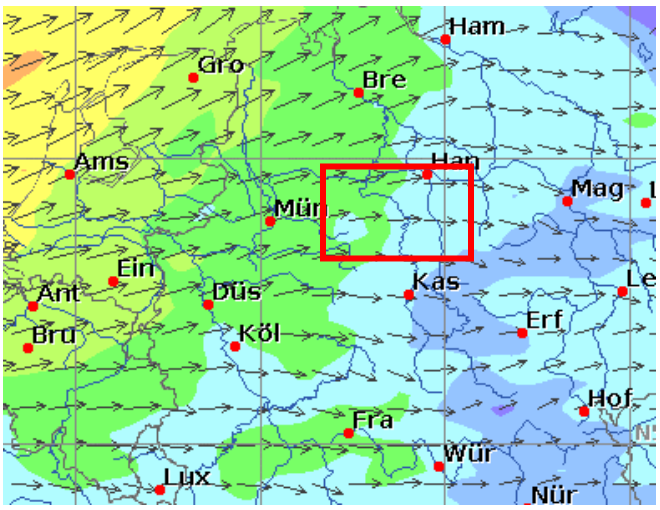
An all-around incredible show of hospitality.

So, at 2 o clock Sunday afternoon, we attached the trailer and jumped in the car for the 750km drive to Rennes.

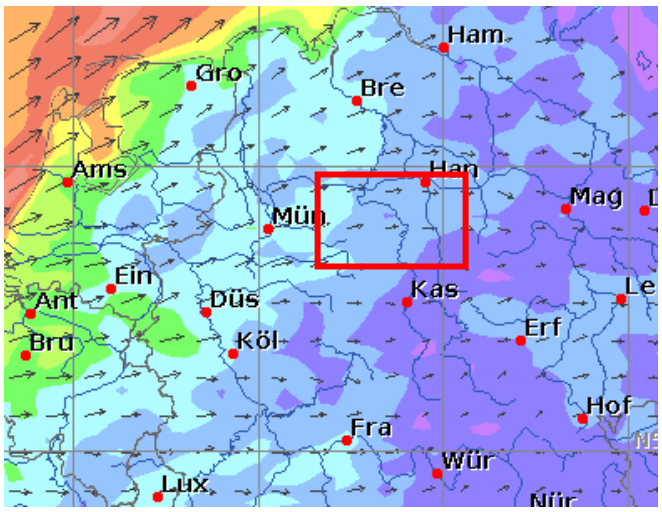
While my parents took care of the driving, I could focus on planning the flight further. A minor paperwork question still needed to be clarified, so I contacted Patrick Pauwels who of course could clear up everything.

Next up was airspace and flight planning (a glider pilot's favorite thing to take care of). Now, since I had prepared this flight for many years, this went well. Regular airspace, AZBA's and restricted zones, with some minor hinderances, were no big issue. The only question was the new gliding TMZ/RMZ over the Ardennes, which I had not had the chance of trying out yet due to the lost spring season because of Corona. Baudouin Litt could quickly answer a remaining question. So, in quite a short time everything was clarified. What a difference with my flight to the South of France in 2012, where I spent 2 full days trying to figure it all out. Practice does make things easier.

An issue of more concern was the Sunday midday weather update. While the actual weather in the whole area was still good, the wind in the evening was suddenly a reason for concern. It was more Westerly than Southwesterly, and, although above 200m windspeeds were still 40-45km/h, the forecasted speeds at ground level dropped significantly to 20-25km/h.



30-40km/h WSW at 21.00 local wind at 450mGND…



… and 15km/h at ground level.

This combination of the not-optimal direction with not very high speeds made it questionable if the western part if the ridgeline would be useable at all. So, I contacted my brother to discuss this, and he confirmed my concern. It was possible that it could work, but it could be at the limit.

Bert agreed to send me info via text during the flight with updates on the wind on the slopes, and also some tactical advise during the flight for the key decisions (flying over the Ardennes vs. through Luxembourg, and flying South of Köln vs. through the corridor between Dusseldorf and Köln, or abandoning the task and adapting the flight to a free distance towards the area between Hamburg and Rostock).

During this planning we drove under nice weather along the Normandy coastline, passing by the famous bridge of Le Havre and Mont-Saint-Michel.



We arrived at the airport of Saint-Sulpice at 22.00, and everything was as Philippe had described and shown. We parked the trailer, rigged the tent, and went to sleep. Tomorrow would be a long day.

Finally, the big day? :-/

My biggest fear was waking up in the rain, with a completely incorrect meteo, having involved everyone for a pipe dream. Getting motivated myself as well as everyone else, to try this again on a later date, would be much harder.

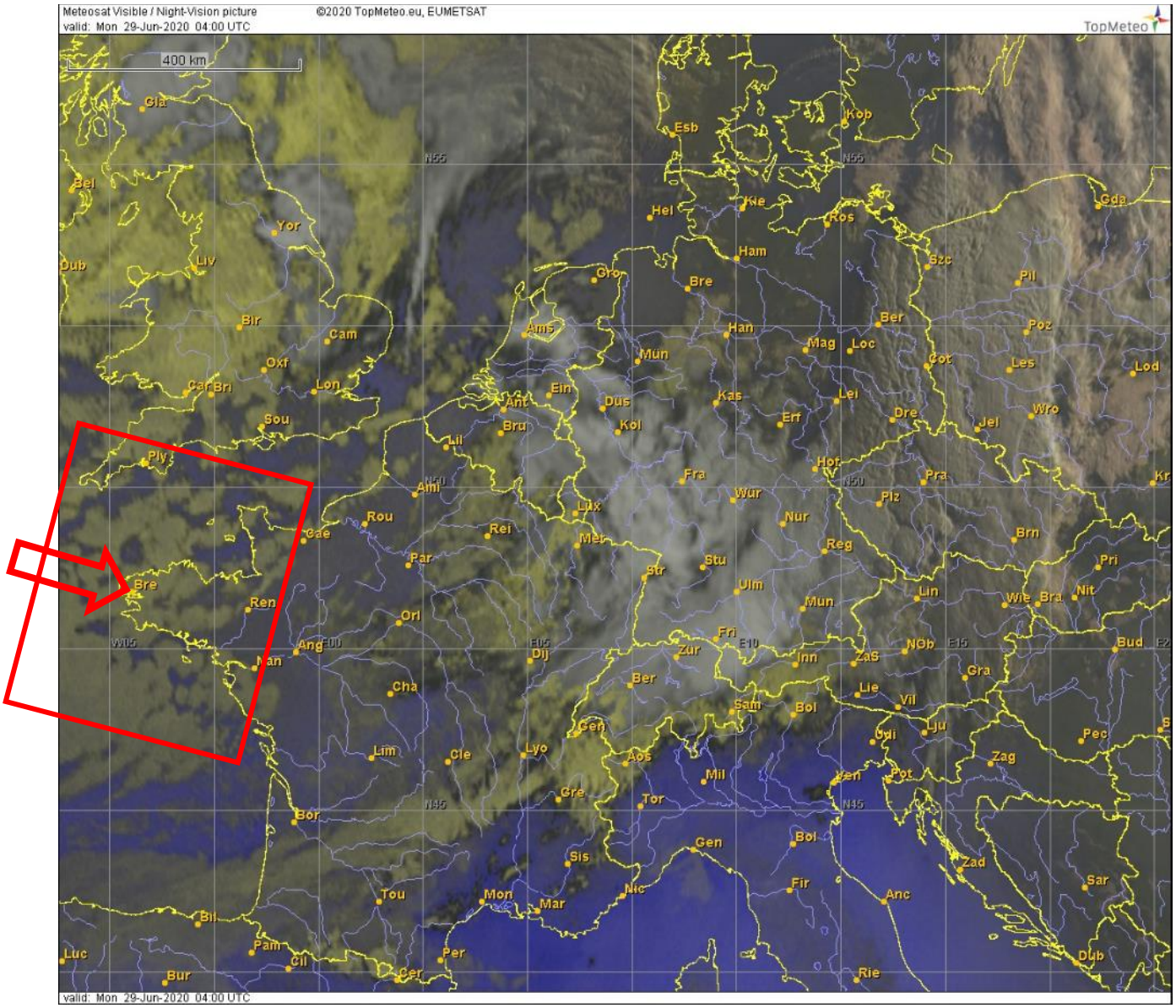
Well, we didn't wake up in the rain.

At 6 in the morning the sky over Saint-Sulpice was fully clear.

Full of courage I opened the laptop and looked at Topmeteo.

Crap!

The satellite pictures showed a large altocumulus-field that was rapidly incoming from over the Ocean and Bretagne. None of the forecasts I use (Topmeteo, DWD and Skysight) had seen that coming in the forecasts of the days before. Humidity measurements of the lower levels over the ocean are sparse, and thus this happens from time to time.



By 7 the skies over Rennes would be grey. And although this altocu field would transform into cumulus clouds later on, it would definitely delay thermal development. Crossing the startline at 9.30 to take the first thermal a bit before 10.00 was suddenly no option anymore. Additionally, the altocu field was very large, and thus a startpoint to the 85 km to the west over the Atlantic Ocean was no option anymore.

On top of that, the wind forecast in the evening over the Lower Saxon Hills hadn't improved at all.

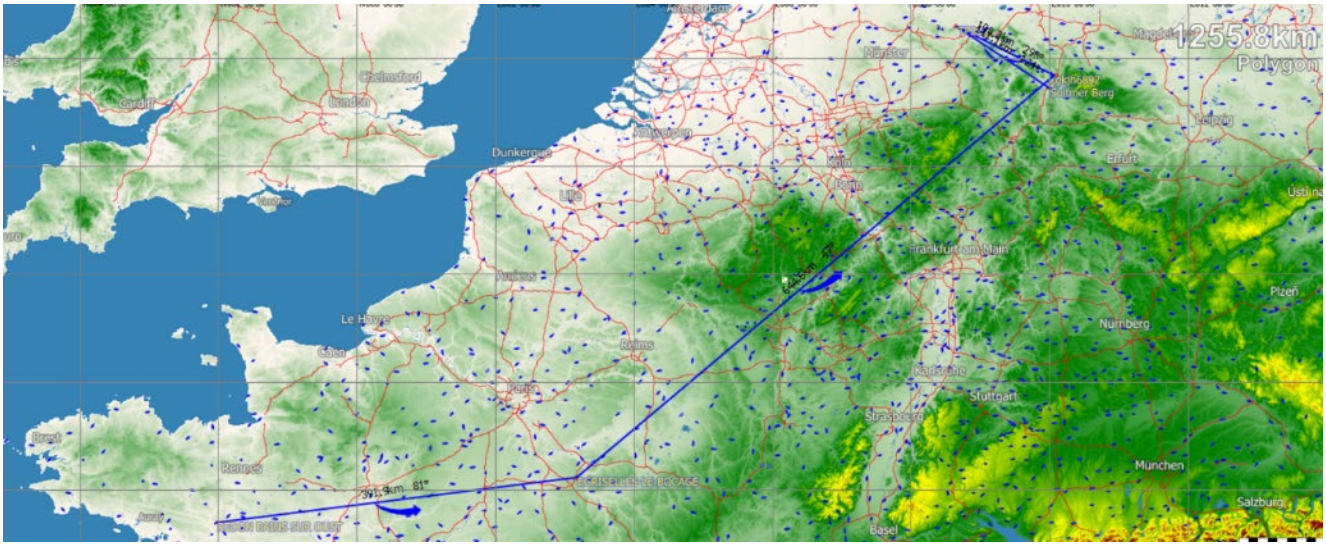
So, there was no other option than to change plans.

I adapted the task, by putting the startline only at 30km West of Saint-Sulpice, to try to get out of under the grey area as quickly as possible and to improve the chances of catching a thermal. I also decided to place only 2 legs over the ridges of the Lower Saxon Hills, so that the last leg would be downwind. This freed up one turnpoint, which I placed to the south east of Paris. Now, the 45km detour I had to fly anyway due to the Parisian airspace, all the sudden counted towards my task distance. I even stretched that point further out towards the south east to the airspace limits for some additional distance. Then I took the turnpoint at the end of the downwind thermal leg (TP2) and placed it at its max distance so I could still make it to the Ith slope in a single glide. Finally, I stretched the expected finish point far out.

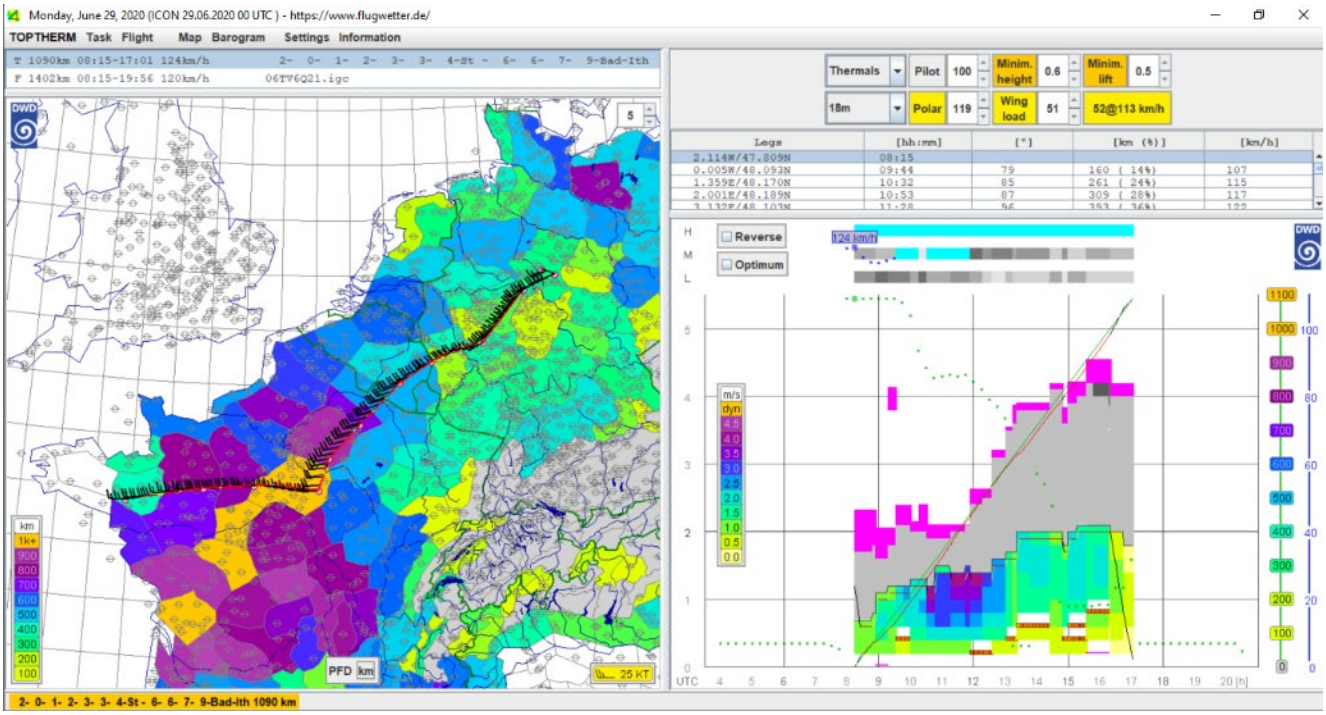
With all this changes, a 1250km task was possible with the tightest of airspace, geographical, and weather window margins.

On the downside, I couldn't possible fit in a task anymore, that would break the Belgian free straight distance record, nor the Belgian declared 3TP distance record.

These changes were made in less than half an hour. Also, here, practice and experience help a lot.



The final task (or something close to it).



The thermal part of the task plugged into Toptask, indicating a possible 124km/h average speed with a start at 10:15.

My parents and I rigged the glider, ballasted it to 550kg, derigged the tent, and prepared the trailer for the long drive.

By 7.15 the family de Péchy arrived as they had said. Since the start was delayed due to the weather by 45 minutes at least, we had some time to chat and drink a coffee. Philippe shared his local knowledge about the terrain, weather, airfield and airspace, so I could finalize the last parts of the plan.

Gérard, Anton, Clément and Philippe de Péchy ← *1.5m* →

Philippe, Gérard, Clément and Anton prepared their own gliders (turns out, the ASG29 was the one previously owned by Belgian team mate Jean-Luc Colson, and the Arcus M was until 2019 even stationed at my own airfield Keiheuvel) for their flights, and they filled up the Dynamic for a long tow.

By 9:15 we were all standing at the end of the runway under grey skies, hoping for some initial signs of thermal activity. A bit after half past 9, there were some spots where the alto-cumulus field was about to crack. By 9.45 further in the east a few first ugly cumuli appeared where the overcast had broken up a bit. This sky definitely wanted to produce thermals with the tiniest bit of sun.

Time was running out.

So, a decision was made to launch by 9:55, in the hope that after reaching the startline 35km in the west at 10:15, and after the glide back over the airfield, there would be some thermals by 10:35.

Phillippe towed us in the air, and the skies towards and over the Atlantic Ocean were dark grey. But while we were climbing, we noticed a bit of thermal activity, and once we were cruising at 1400m under the alto cumulus field, a few 100m under us some small cumuli formed. Not yet useable or large enough to stay aloft, but a good sign, nonetheless.

Dreary skies towards the Atlantic Ocean. (picture by Philippe de Péchy)

Blowing in the wind

After releasing the tow rope, and profoundly thanking Philippe for everything, I used the engine for a minute, turned 180 degrees, and crossed the startline in 1300m.

Off we go.

In the far away distance, behind Rennes-Saint-Sulpice, I saw that the cumulus clouds had taken better shape.

Closerby, the few small cu clouds under the alto-cu had formed a bit more. Still unusable, but definitely worth the small detour for a bit of extra lift during cruise.

They did give a bit of the hoped-for lift, and the strong tailwind of 35-40km/h increased the glide angle as well. I reached the airfield again with plenty of altitude. Clement had just launched with the JS1C as well.

The first actual cumulus cloud was 10km to the east of Saint-Sulpice, and after a glide of 40km, I entered a first thermal at 500m AGL. It wasn't much, perhaps 0.5m/s, and very inconsistent. But it was everything I hoped for.

After a couple of turns, the climb disappeared, but next to it another cumulus had formed.

0.3m/s. Patience.

In 650m AGL I jumped to the next. 0.9m/s.

In 800m AGL I pushed on to the next cumulus on-track. 1.2m/s.

The connection to the better weather was made. Here, the altocumulus field had gained curves and had turned into very wide cloudstreets. Still not a lot of sun on the ground, hard to find the best energy lines under, and climb rates not yet spectacular. But with a tactic of staying high, and carefully feeling my way through the air mass, I could begin with increasing the average speed.

By Le Mans, cloudstreets became quite decent.

And between Paris and Orleans airspaces, the weather was spectacular. Helped by the westerly tailwind, cross 60min XC speeds increased above 150km/h.

Quickly the first turnpoint was reached. While my track turned to the north east, so did the wind. This couldn't have turned out better. Between Paris and Vatry was a bit of a blue hole, but in the middle of it, just before the Nogent Nuclear Powerplant, I could find a 2.8m/s up till 1800m under a nice cu.

Towards Reims, things went fabulous.

By then I got a text from my brother that the Ardennes started to look great, and that the Eiffel and area around Köln would work well.

And so they did. The Ardennes and the Eiffel went without any problems.

St. Hubert Private to the left, and military runway on the right.

Arriving Dahlemer Binz, I opted for the southern route around Köln. A nice cloudstreet went straight through the TMA of Köln. I quickly contacted Langen, who forwarded me to the Köln approach. The nice controller gave me clearance to cross his zone towards the Sauerland.

From experience I know that the Sauerland often doesn't work well in this type of weather. It often gets hammered with large amounts of rain from the preceding front. This combined with the humidity and the many unstructured ridgelines, causes hard to find and hard to center climbs of short duration, as well as overdevelopments.

This day, the front with quite a bit of rainfall had passed here by 12.00, just 5 hours before I arrived. Overdevelopments where today not an issue, but climbs were definitely not great. Again, a bit of patience. And at least the cloud base was 2000m here.

After the Sauerland, the second turnpoint was less than 100km away. Passing by Kassel, I could keep the altitude high, and the 30-35km/h tailwind helped keeping the average speed up.

The first view of the Lower Saxon Hills to the north.

I entered the FAI sector of the turnpoint in 1600m at 18:25 with an average speed of 127km/h over 1037km.

At TP2, a decision had to be made: I had done 985km free straight distance. Continuing for 25km to the North-east (easily achievable with the altitude I had there) would make breaking the Belgian record a sure thing. I hadn't caught up with the front yet, and in direction of Berlin there were still decent, though not great, cumulus clouds. Thermal activity would probably also continue for more than 1.5 hours.

Satellite picture analysis of after the flight showed that I probably could have made it to the airfield of Bork near Berlin, for a total free distance of 1178km.

But the lure of the 1250km, as well as the unique opportunity to try out this plan years in the making, was too strong. The fact that the currently standing free straight distance record was my own, helped as well.

Arriving at the Lower Saxon Hills

Bert texted that the wind indeed looked a problematic (20-25km/h, too much from the west), and that all day he hadn't seen a single glider on glidertracking flying on these ridges.

Arriving at the Ith, which is one of the best slopes for this wind, I went down to 250m above the ridge line, and couldn't keep my altitude flying 135km/h with still 550kg.

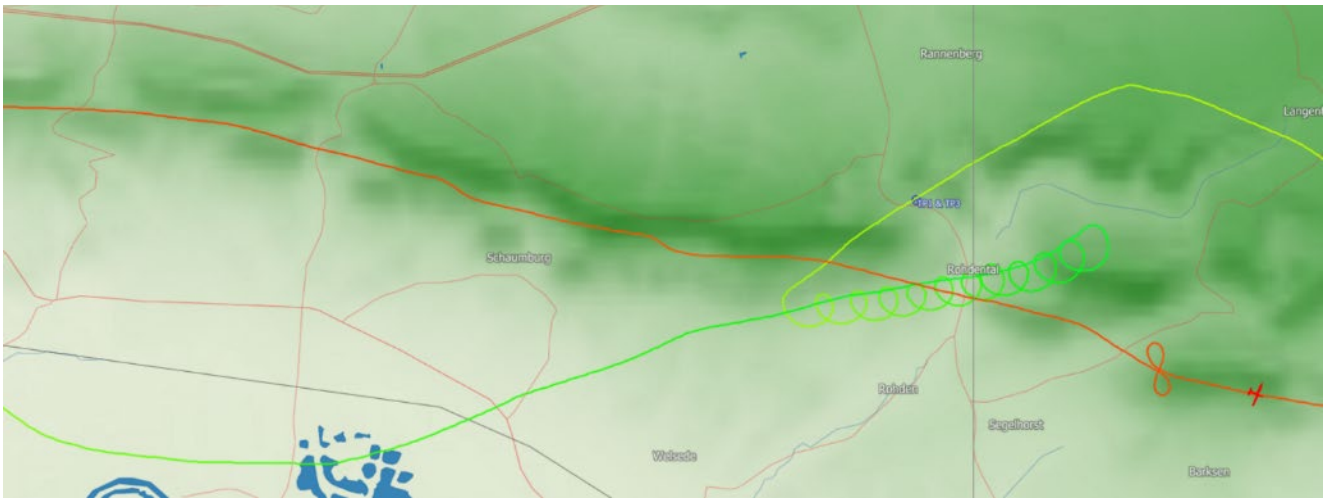
Damn, and this should even be the best part of the slopes.

Still comfortably high above the slopes, with some Cu.

Luckily, it wasn't very late yet, and thermals still formed and teared away on the ridge. I thus took some thermals of 1m/s-1.2m/s. The strong headwind component on this leg did reduce the cross country speed to 60km/h. At the break in the ridgeline near the city of Hameln, I made it to 1200m, and could thus easily cross, even with an abysmal glide ratio of 32.

After the crossing, I could still find 2 decent climbs of 1m/s and made progress against the wind.

But then, about 25km from the last turnpoint, the skies turned grey again, and no more cumulus clouds where to be found under the alto cumulus field. Since the ridge here didn't work well at all here, I tried to maintain as much altitude as possible, while still keeping the water to make progress against the wind.



Clearly showing the shallow wind vector on one of the worst parts of the ridgeline.

At the east side of the Porta Westfalica, the wind does hit the short ridge quite well, and a small thermal under 8 octas overcast made it possible to start the final 20km to the turnpoint with 800m MSL, some 600m above the ridge.

Nothing but altocumulus and a weak working ridge to bring me to TPe and back.

I sank lower and lower, and reached the turnpoint with 300m above the fields in the valley near Hullenhorst.

I immediately made a 180-degree turn, opened the water valves, and flew immediately back on the Wiehengebirge ridge, decreasing the airspeed to as slow as I was comfortable with. While the variometer hardly went over 0.5m/s on the best parts, with the fantastic efficiency of the Ventus 3, combined with its excellent feel for the airmass, I now could maintain my altitude at 350-450m MSL. And the strong tailwind component made me progress at a decent pace over the Wesergebirge.

Arriving at the gap in the ridge near the city of Hameln, I needed to gain some altitude at the Suntel. Below the ridge top I started flying figures of eight on a steep cliff, with a climb rate of 0.2-0.3m/s. Normally, you need 650-700m MSL to safely cross to the other side. But the tailwind gave me confidence it could be done without an issue with just 600m.

I arrived at the opposite side on the Ith with sufficient altitude, and easily connected to the slope lift. As expected, the Ith, now with an empty glider, did work better than the previous part. But also here, I didn't seem to be able to climb above 630m MSL.

At the end of the Ith, the 1250km line was still 20km away, and I needed a glideratio of 60 to reach it within the 1000m altitude-loss-rule.

Towards Northeim, and the airfield of Sultmer Berg, you can find some shallow low hills, which are rarely or never used by the local pilots here. It's definitely a one-way ticket. But it was the ticket I needed for this flight.

I dived towards them, and their slight but significant help, together with the tailwind increased the glide ratio of the Ventus 3 to 77:1. Sufficient to cross the 1250km mark with a small margin, and thus sufficient for the much longed for 1250km diploma.

If the paperwork works out, this will be the 31st 1250km diploma in the world, the 6th in Europe, the 2nd flow from France, and the first in Europe outside of Mountain wave.

Landing and return trip

Near the airfield of Sultmer Berg, I used the engine after 1254.8km, took a picture, and in sms-contact with my parents, decided upon an airfield for landing to shorten the retrieve as much as possible.

Under normal circumstances, I had sufficient time to fly the almost 100km to Porta Westfalica airfield, but I would arrive at 22:25. While that in theory gave me 10 minutes before I had to be on the ground legally. The altocumulus fields in the WNW, had advanced the real Sunset time, which meant I would have to land in the dark.

So, a compromise was made, and I decided to land in Bisperode West, a nice airfield near the Ith which you must land uphill on to reach the hangars on a small platform.

After making a circuit to check that everything was in order, I landed on the empty airfield.

Just after landing on Bisperode West…

…with the Ith hill in the background (and weak looking windsock).

My parents arrived 2 hours later, after a drive of 1100km. We derigged the glider in the dark, and because of other obligations on the next day, we drove back to Belgium and arrived in Antwerp at 5.30 in the morning.

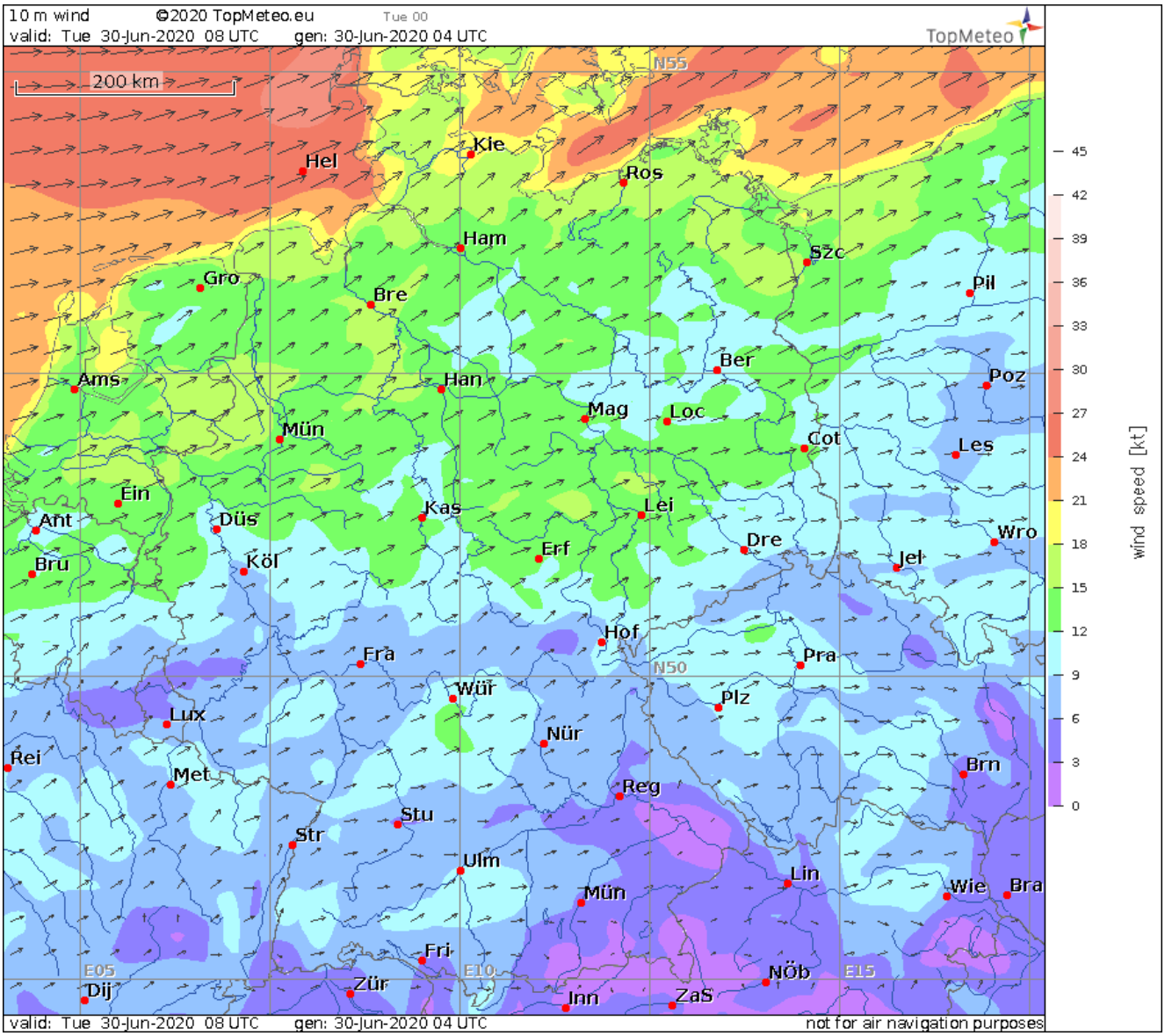
Just 40 hours gone from home, but a memory for a lifetime.

So, what about Tuesday, the day after?

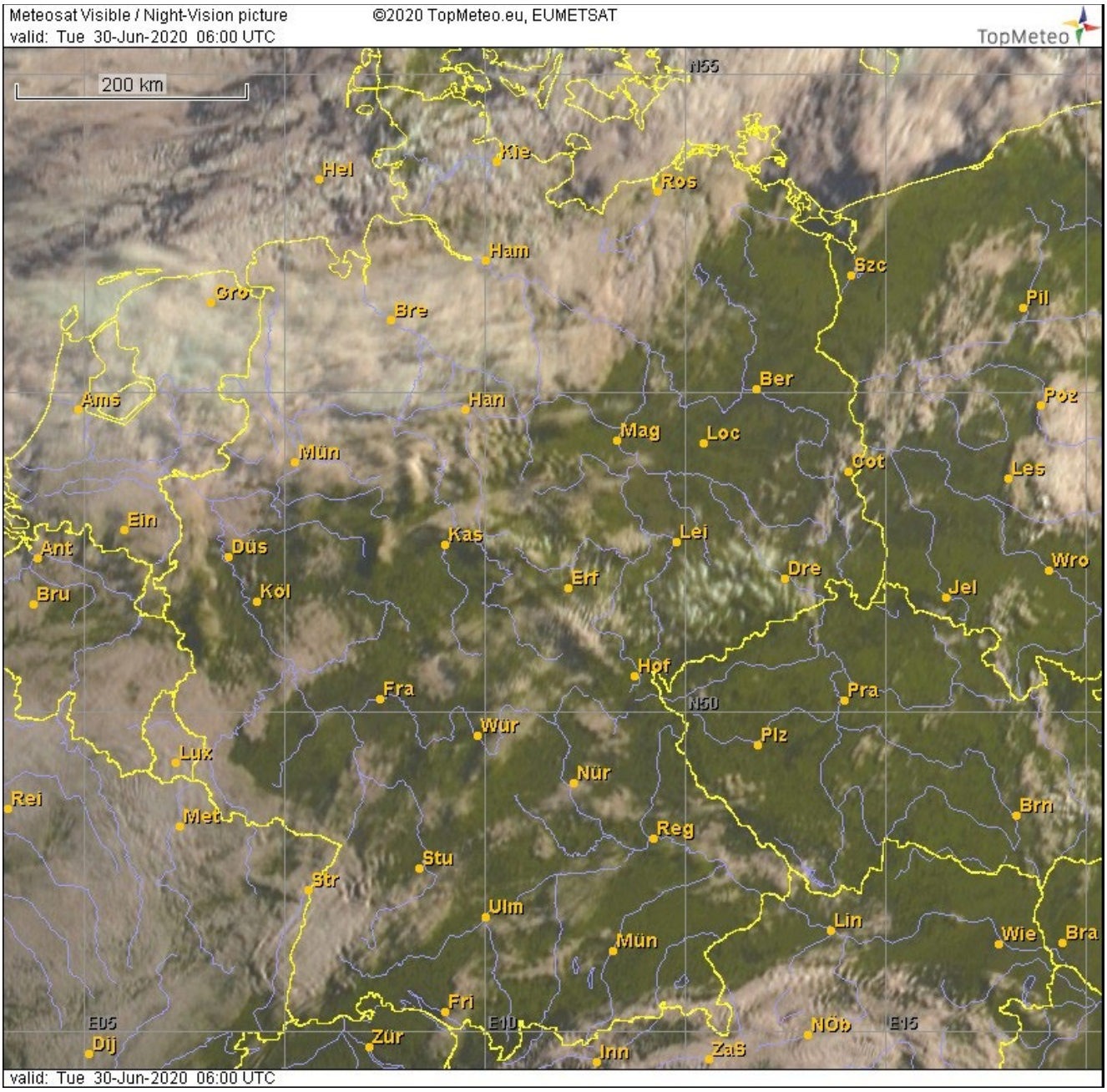
Since Tuesday was the backup day, with a flight from the Lower Saxon Hills towards the Lithuanian border, could that have worked out as well?

It turns out that, yes, quite likely that would have worked as well.

During the night, the low-pressure area of the UK moved south-east a bit, and the windspeeds increased, as well as turned more south west again. The hills would thus have worked well, as shown by the wave like pattern in the clouds in the morning satellite picture. You could thus have used the ridge over its full length.

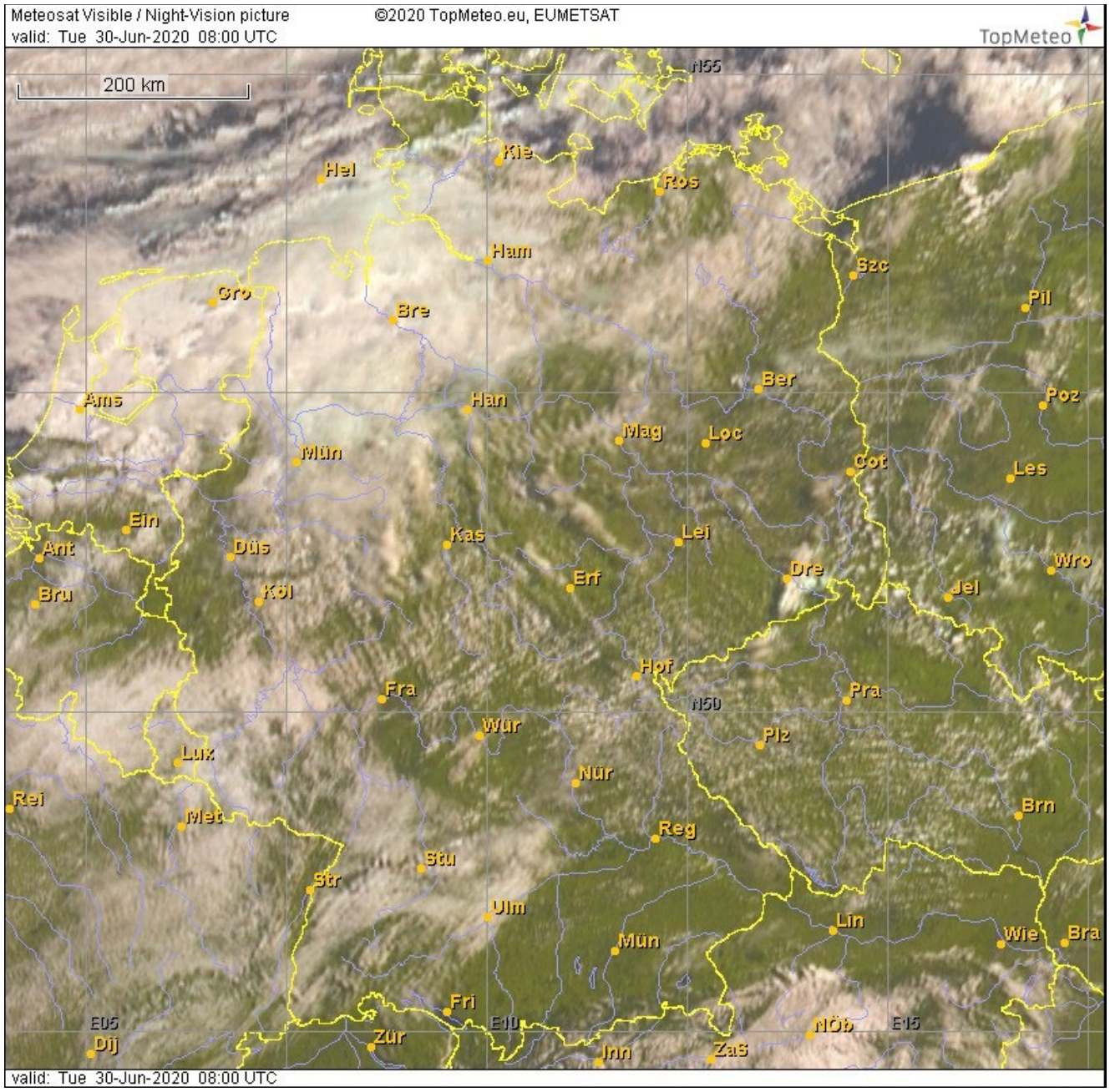


Ground winds of 25-30km/h winds from the SW at 8.00 local. Much better than the evening before.



Wave structure in the alto-cumulus clouds S and SW of Hanover at 8 in the morning.

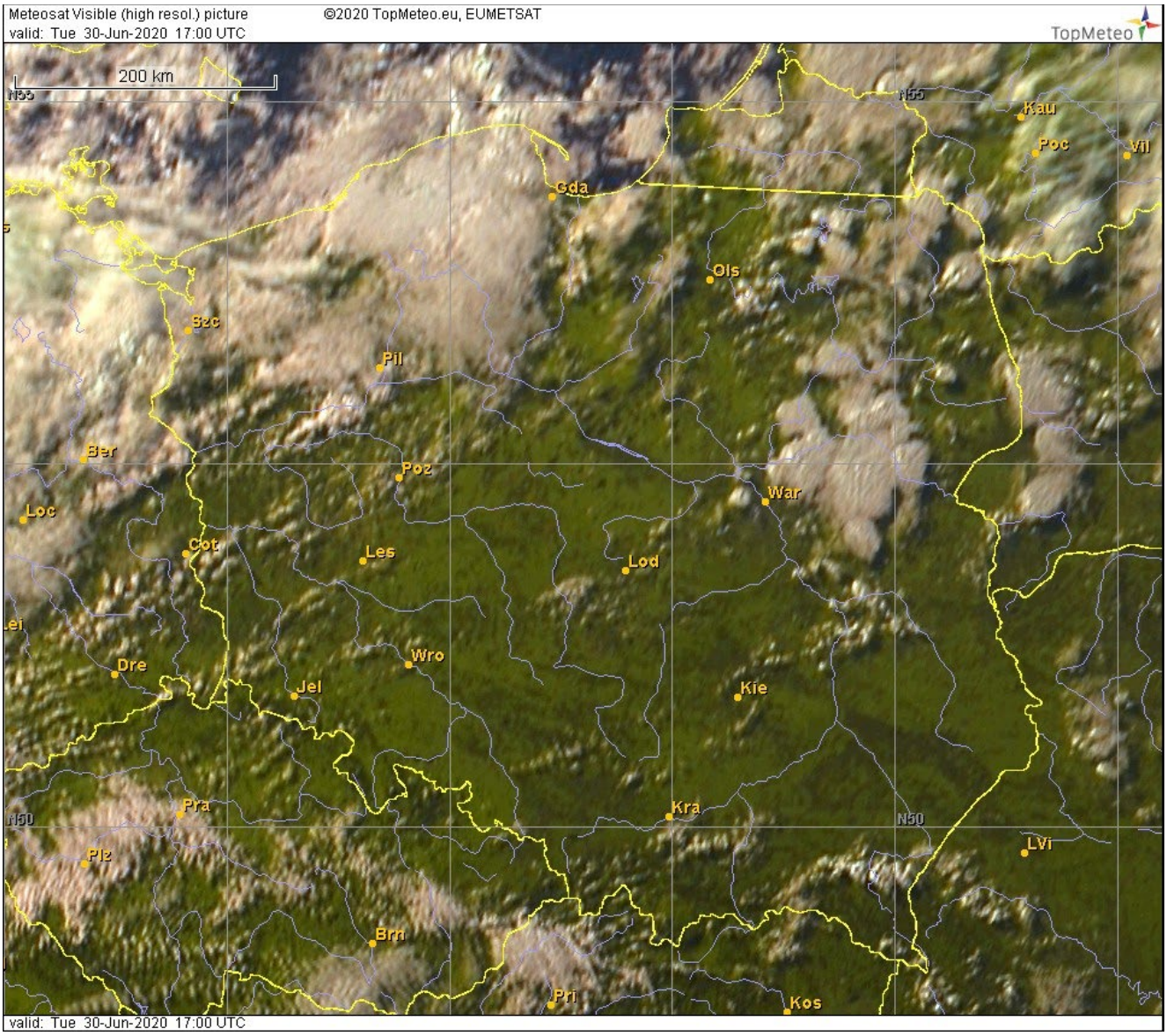
Those clouds should have been sufficiently high above the ridge, and not have been a legal or safety problem. No early morning fog or very low-level clouds where mentioned in the meteo in this specific area.



The satellite pictures from 10.00 show that there were cumulus clouds in the region of Ithwiesen, and you could probably have connected to the thermals to continue to the south of Berlin.

The line from Berlin, between Pila and Poznan, towards Olsztyn looked to be full of cumulus on the crucial hours.

And, in the evening, you would have caught up with the front between Olsztyn and Suwalki. The 3TP 1250km distance would have been reached at a finish point 85km east of Olsztyn. That finish looks like it could have been reachable as well.



So, in theory, after landing I could have turned the glider 180 degrees, slept for a couple of hours, and then rolled down the Bisperode West hill the next day, and probably done another 1250km task.

But what if…

Now, if you want to go one (really big) step further, could you combine the two days into a single flight?

Could you stay in the air overnight, and combine the downwind task from the Atlantic Ocean to the Lower Saxon hills, parking the glider at the ridge of the Ith from 22.30 to 4.30, and then continuing the next day from 9.30 or so to Suwalki or even into Lithuania on the next downwind leg?

Perhaps.

Regarding the weather, it could work. Perhaps it would even have worked during the day of my flight, and the day after (although windspeeds between 23:00 and 03:00 on the ground were pretty low at ground level on the Ith, so staying aloft during that time might have been a bit challenging).

Legally, there is an opening as well. A glider night-VFR license can be obtained, for instance in Poland which has a long tradition in glider night flying. The German AIP ENR1.2 and 1.3 as well as SERA.5005.c do not exclude gliders for night VFR flights (only ULMs). Normally a minimum altitude of 1000ft above the highest obstacle must be maintained, but there is the explicit option for receiving an authorization for deviating from that. This would require a bit of lobby-work, but showing seriousness of taking safety into consideration for such a project, it could probably be achieved. And, finally, the glider needs to be equipped for night-VFR.

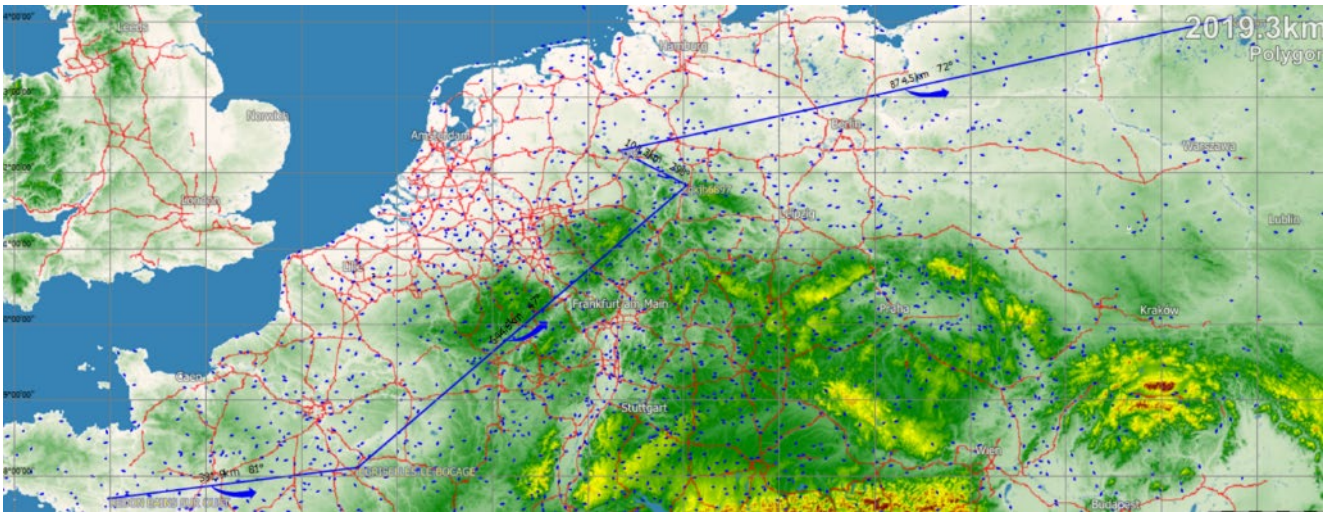
Night VFR gliding in Poland.

The logistics would probably be the biggest problem. Apart from the retrieve crew having to drive 5000km, you also need a team at either Ithwiesen or Hellenhagen which would install temporary runway lights to keep it safe, as well as floodlights on a 1km stretch of the hill.

Then you would need a night-VFR equipped doubleseater of sufficient performance with a 36-hour endurance. I think the Nimbus 4DM of Jean-Marie Clement is the only such glider in existence.

And I would also bring a tablet with Netflix to sustain yourself through the shear boredom of flying the same figure of eight on the same limited 1km stretch of Ith slope for about 8 to 10 hours.

So, if all those hurdles would be overcome, a 3TP distance of 2000km could be achieved with a finish near Olsztyn, and even 2250km if you could make it to Alytus, just to the south of Pociunai, which would also be a 2000km straight distance flight.



Combination of Monday's actual flight, and Tuesday possible flight into a single 3TP task.

Now, before you declare me crazy, I don't think this will ever be done, and I am not planning to do this myself. Although it is perhaps theoretically, meteorologically and legally possible, it is most likely too much of a challenge to ever be completed in our non-professional sport. But it is an interesting idea, nevertheless.

And great flights start with interesting ideas…

Thank you!

Foremost: the biggest thank you to my parents, without whose support for many years and without whose effort on this particular adventure, none of this is possible.

Mille mercis au club Planeurs d'Ille-et-Vilaine a Rennes/Saint-Sulpice-des-Landes, et surtout à la famille de Péchy, qui nous a généreusement accueillis en si peu de temps, et m'a donné l'occasion de réaliser ce rêve. Merci beaucoup!

I tend to not broadcast these experiments beforehand, but apparently quite a lot of people figured it out during the flight and where following along on OGN. I read some of the chat logs with the enthusiasm and encouragement afterwards. Really cool!

And thank you so much for the nice comments afterwards over the past few days!

Powered by: Brillen Kueppers, LX Nav, Naviter, Topmeteo, Skysight, DWD, and Schempp-Hirth. You all make brilliant equipment making dreams possible.