

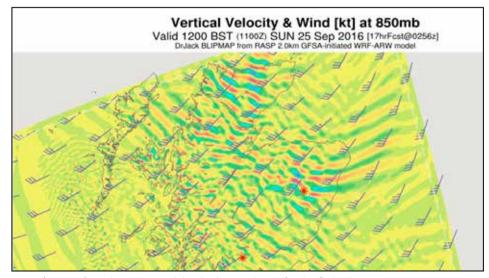
Looking down on the Minch during a flight that made British gliding history (Thomas Seiler)

Christof Maul and Thomas Seiler report on a wave flight from Aboyne that made British gliding history ANY times we had seen pronounced wave structures over Scotland in satellite images, and often these structures had not only extended to the islands of the Inner and the Outer Hebrides, but also covered the Minch separating the islands from each other and from the Scottish mainland.

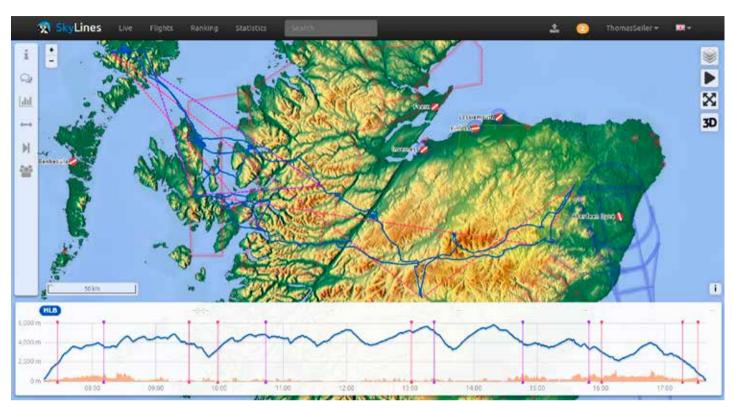
We encountered such a case on the evening of 2 October, 2014, after we had flown for the first time over the Minch

having taken off in the morning from the airfield in Aboyne. On the way there, we had been following rotor bands and lenticular clouds without any particular goal. To our surprise, we found ourselves at 16,000ft with 2kt laminar climb 20km off shore over the water, with the isle of Lewis in good view on the not so distant horizon. We had turned around and headed back to Aboyne when, further out over the water, the lift had disappeared, but the sight of Lewis has remained in our memories since.

In September 2016, eight members of the Segelfluggruppe Bremen in Northern Germany travelled all the way from Germany to Aboyne, in order to explore the Scottish waves over the highlands again. The group had grown substantially larger over the time in four visits since 2009, and since 2014 has been accompanied by a member of the Akaflieg (Academic Gliding Club) Frankfurt gliding club. The road distance from Bremen or Frankfurt to Aboyne is about 1,000 miles, in addition to the ferry crossing of the English Channel. While the first two expeditions focused mainly on height gain, later activities were shifted towards crosscountry wave flying. To this end, in 2014 and 2016, the two of us – Christof Maul (Akaflieg Frankfurt) and Thomas Seiler (SFG Bremen) had the opportunity to fly the Arcus T of the



Wave forecast from the RASP model with 2km resolution for the flight day, 12:00



The flight path of Christof Maul and Thomas Seiler on 25 September, courtesy of www.skylines.aero

Hessische Luftsportbund (Hessian Air Sports Association).

Strong southwesterly winds were expected over Scotland on 25 September, 2016, and the RASP forecast promised wave formation. However, owing to a trough behind a cold front that passed in the night before, some labilisation of the air mass with possible occurrence of showers could be expected. This is not normally an optimal setting for the development of waves. Nevertheless, our idea was to go as far west as possible. So, the evening before we alerted the towpilots and cautiously tried to find out whether we could get an early tow the next morning. "No problem," they said, "Just wake us up an hour before you want to take off."

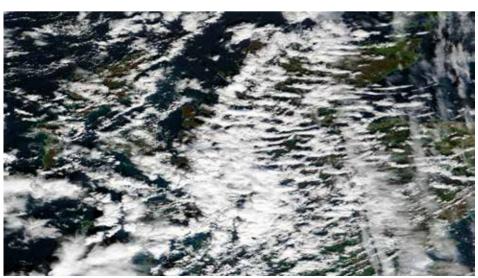
We took off at 07.15 with the computer telling us that Stornoway airport would be 245km out to the northwest. We thought that was quite funny, had a good laugh at this joke, and off we went. The first westbound leg was quite smooth, whereas we were cautious when crossing the Great Glen, as its axis coincided almost perfectly with the wind direction. Having made sufficient altitude before, we managed to follow a good energy line from Invergarry to Arnisdale at Loch Hourn.

Our first attempt to jump from there to the Isle of Skye on a southerly route was

unsuccessful and we had to fly back to Arnisdale to regain height. From there we headed downwind and tried the next wave lift over Loch Alsh as a starting point to access the Isle of Skye. Unfortunately, the result was as before.

Next, we tried the Loch Shieldaig wave as a stepping stone, from where we could finally cross the Inner Sound and the Sound of Raasay and managed to find good wave lift in the lee of the Trotternish peninsula

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High-resolution satellite image from the US satellite terra (image courtesy: NOAA)

■ If you want to look at the flight without any igc file display software, visit www. skylines.aero for the flights of 25 September, 2016. Here you can have a look at the flight with a topographic map in the background



Shortly before landing in the area around Aboyne (Thomas Seiler)



Arcus T "2A" with Timo Struckmeyer and Björn-Christian Michaelis , and Arcus T "HLB" with Christof Maul and Thomas Seiler over the Cairngorm Mountains (Tim Rühenbeck)

in the Northern part of Skye. Having reached 17,000ft here, we started to wonder what to do with our altitude. The sky did not really look wave-like. Looking out of the cockpit, instead of nicely aligned rotor and lenticular clouds we just saw more or

less chaotic cloud patterns. That organised cloud structures indeed existed would be visible only on the satellite images that we studied in the clubhouse after our return. However, there had been a working wave system so far and if the 1,800ft high 'peaks' of the Trotternish peninsula could generate a lee wave reaching 17,000ft, why shouldn't that be the case for the 2,000ft mountains on the isle of Lewis?

So we decided to cross the Little Minch, given that Stornoway airport was a safe alternative with the altitude we had. Nevertheless, we could not help feeling a little bit uneasy. As the distance across the Minch is almost 30km, it takes a while until you arrive at the other side providing ample time to reconsider the wisdom and the possible consequences of what you're doing.

We were wondering how our friends in Aboyne would react to a phone call from Stornoway and how many days it would take for a retrieval from there. As a result, we focused our attention on a few puffy clouds over the southern part of the isle of Lewis, which, with some good will, could be interpreted as a loosely assembled rotor band.

On our arrival, we had descended to 10,000ft and it was clear that the options were finding lift there, or landing at Stornoway. After two tense minutes in zero sink and when we were ready to abandon our hopes, we managed to find a spot with sufficient lift to carry us and our Arcus upward. Patiently, we remained in that weak



lift until we were back up at 18,000ft. By then our mood had greatly improved and, with the Isle of Skye airfield being only a little more than 100km away, we turned round and headed back into the wind.

Luckily, the Trotternish wave was still in operation, although in order to enter it we had to go wide around a not-so-small shower cloud. Behind it we could climb to almost 19,000ft, the maximum altitude of this flight, such that jumping back to the Scottish mainland was no longer a big deal.

In the meantime, several showers had developed between which we managed to push on eastward without real difficulties, until south of Feshiebridge an enormous shower cloud finally blocked the way back to Aboyne. We decided to go around it to the south, but having lost quite some altitude after a long glide without any lift, we finally turned back north in order not to lose Feshiebridge as a safe outlanding option. When we finally found lift there, the shower had slowly started to die and the way back to Aboyne was open again.

As we landed on runway 09 South at Aboyne, we had not yet realised that on completing the very first glider flight to the Outer Hebrides we had written British gliding history. The other members of the German expedition hadn't done badly either: Timo Struckmeyer and Björn-Christian Michaelis accumulated 794km (OLC distance) in an Arcus T, and Soufian El Allouki and Tim Rühenbeck accomplished a 735km flight in a Duo Discus T.

When we reviewed the day later that night, we were astonished by the precipitation radar images. The Scottish Highlands had been full of shower activity, such that one would not have expected a decent wave day. On the other hand, despite the instability and over-development, high resolution images of the pole orbiting NOAA satellites did show



organised wave structures. Nevertheless, these wave structures were often difficult to identify from the visual impression of the clouds. As a consequence, we did not always find good energy lines and our performance could have been better.

The success of this flight would not have been possible without all the members of Deeside Gliding Club, who have always heartily welcomed our group with generous hospitality: first and foremost, Bob Dunthorn ruling the ground operations; Roy Wilson, who shared a wealth of Scottish wave knowledge with us (and taught us how to use the BGA Ladder); and the numerous tuggies from all over the world, who did not mind getting up early in the morning and fearlessly dropped us off where the wave was. Their smooth airfield operation has really allowed us to explore the Scottish Highlands, together with their waves.

We have recently learned that severe airspace restrictions around the airport of Inverness are under discussion. Any such move would drastically deteriorate the quality of the unique Scottish wave grounds,

and whether the situation would then be worth two days and 1,000 miles of travel remains unclear at present. Therefore we strongly support the Scottish glider pilots in their efforts to preserve their wave paradise for themselves, for us, and for future generations of glider pilots.

- Christof Maul (above left) started gliding in 1983, has been licensed since 1986 and an instructor since 1999. He flies at Akaflieg Frankfurt (academic gliding club associated with the Goethe university Frankfurt). Christof owns half of an LS3 and half of a Standard Libelle. He has 2.800 hours accumulated and switched from competition flying in early years to gliding safaris and (cross-country) wave soaring. Christof explores uncharted territory in a glider whenever possible. He discovered Scottish wave for himself in 2014 and likes it.
- Thomas Seiler (above right) started gliding in 1989, has been licensed since 1991 and an instructor since 1994. He flies at Segelfluggruppe Bremen in northern Germany. Thomas owns a Glasflügel Hornet. He has 3,000 hours accumulated. Thomas is not into competition alidina: he likes individual crosscountry flying and flying gliding safaris (especially together with Christof). As a meteorologist. Thomas is interested in all meteorological phenomena affecting glider flying, especially waves. He has already visited Aboyne four times to experience Scottish wave.

