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FEATURE

Five men - one Mission. The most recent foreign adventure of HeliGraphix sent Saskia Oehmichen, Tobias "2fast 2furious" Wagner, Nicolas Kaiser, Lukas Grunauer and Christoph Paulus to Turkey

TEXT: TOBIAS WAGNER & MATHIAS ELSAESSER
PHOTOS: LUKAS GRUNAUER & SASKIA OEHMICHEN

Mission Turkey

INSANITY NEVER SLEEPS! THIS INSIGHT HAS BEEN VERIFIED MORE THAN ONCE OVER THE LAST COUPLE OF YEARS, AND WITH OVER 80 COOL HELICOPTER STUNTS CURRENTLY HOVERING IN THE HELIGRAPHIX PIPELINE OF IDEAS IT IS BOUND TO STAY THIS WAY FOR SOME TIME TO COME. THE TEAM HAS JUST RETURNED FROM THEIR LATEST HELI MISSION IN TURKEY – AND HAVE FANTASTIC FILM AND PHOTO FOOTAGE FOR YOU IN THEIR BAGGAGE! A WORD OF WARNING - DON'T TRY THIS AT HOME!

After having toured through around 35 countries with our helicopters, why of all things Turkey this time? The answer is surprisingly simple: The focus of our latest action was on water sports.

HOW, WHAT, WHERE, AND WHAT THE HECK?...

On the one hand this requires a coast, and on the other a solid tourist infrastructure. Of additional benefit is the excellent accessibility of the country by air travel and a good network of well-maintained roads. All those are factors that one comes to appreciate for an efficient project execution. And by the way, Turkey is a downright beautiful country and the people there are exceptionally friendly, helpful and unobtrusive. We can only recommend to see it for yourself.

With a crew of five and 100kg of luggage we boarded the plane bound for southern Turkey. On location we used a minibus. Due to an empty tank we were already stranded at the airport exit at 1am: "Car is empty, you return it empty". But that the tank had been pumped almost dry so that it lasted for a mere 700m nonetheless came as quite a surprise. But then, there was nothing else we had on our agenda for this time of day... fuel prices are far higher than in central Europe, BTW, which may have been the cause for the lean calculation of the car rental.

As for clothing we could only take along a few shirts and one pair of pants. The remaining baggage allowance was completely utilised for helicopters, batteries, chargers as well as photographic and filming equipment. For mobile conditions we were pretty well-equipped picture wise and to a certain degree also armed for less than ideal weather conditions. Additionally we were able to successfully put to test a HOA- System (Human Operator Assist) in real life for the first time: the camera view is wirelessly transmitted to a mini screen for the director so he can easily assist with choosing manual camera parameters and perspective. Even though our 2.4GHz transmitters caused some interference the contraption worked quite satisfactorily in most cases and was helpful. Due to the fast and partly not foreseeable motif changes during a stunt getting the best pictures remained the most difficult aspect, even before logistics and the piloting. Cameras unfortunately do have far more controls than just two sticks.

MAY THE FUN BEGIN!

To cut a long story short, 'Mission Turkey' was one of the most efficient and successful trips we have executed to date. Seven helicopter campaigns plus one non-heli stunt could be realised. We were allowed to fly over the UNESCO World Heritage site of Pamukkale and could clear the well-known

With a solid 350hp, the traction boat was very powerful. As it turned out later every single horse power was absolutely necessary

More details/info

Alligator fishing with R/C helis, alpine skiing in the Egyptian desert, sliding down the outside wall of a multi-storey building, the world's first ceiling and wall landings, about 100 such crazy actions with R/C helicopters have been performed by HeliGraphix since 2003. This 'open-source' group of heli enthusiasts is based in Germany but operates worldwide. Their largest project – flying with an R/C heli in more than 30 countries all over the globe – has even earned them two international film awards and caused major publicity in newspapers and radio shows. Almost all of their actions are freely available on the internet via their frequently visited website HeliGraphix.com and their YouTube channel.
Apart from their crazy stunt actions HeliGraphix are into aerial imaging, help testing new R/C components, do international 3D demos and are frequent contributors to a number of primarily German-language R/C publications. Their main goal is to promote the fun that is R/C helicopter flying.
To find out more about the many crazy R/C heli stunts the guys from HeliGraphix have pulled over the last few years and to order DVDs of some of them, check out the website at www.heligraphix.com

Exact planning is everything: An extensive briefing session as well as a test ride as a dry run lasted for about three hours. Because both wind and weather where favorable the live action had to start immediately afterwards

Nicolas Kaiser (left) competently supported the team from the shore and was responsible for preparing the heli

"At first thought one might imagine that it was quite a simple thing to be dangling from a paraglider..."

Lycian rock-cut tombs in Myra for a stunt flight. Particularly the latter was quite an undertaking as hoards of tourists were brought in bus-loads. At times it can be quite a challenge to conclusively convince site operators and public authorities of the positive influence of such helicopter flights on world culture.

But now back to water sports and the first big project that surprisingly we could start on our very first day in the country: parascending/parasailing. The stunt is part of the new 'HeliGraphix SPORTS' series in which we will indulge in most diverse kinds of sports in the helicopter variant. During parasailing we will hang from a paraglider pulled by a boat. Ours had 350hp which led to proportionally high fuel consumption and thus operating costs. We had located and rented this particularly potent powerboat because we wanted to have two persons fly with the paraglider: the pilot including transmitter and the camera operator with a camera. In order to get this weight up in the air the boat had to be considerably faster and thus required every one of those additional horse powers. In fact the power reserve was so scant that despite the high power the whole thing would only work with the right wind conditions. By chance we had exactly such conditions after the first briefing – and thus the urgency arose to start this complex stunt without much familiarization.

PARASAILING: NOT SO SIMPLE

At first thought one might imagine that it was quite a simple thing to be dangling from a paraglider, taking in the view with a smile and all the while placidly cruising along with one's helicopter in inverted flight. Well... first of all there is the issue with two people hanging from a paraglider and the wind. This already limits how the boat can take off and cruise. Secondly there are always waves in the sea, especially when it's windy. This leads to the occasional jerk and some oscillation of the paraglider; luckily at least this point turned out to be quite harmless in relation to other challenges. The next question is where to find the most suitable stretch of beach. It shouldn't be bristling with tourists because no people must be in the danger zone.

Okay, so much for the basic prerequisites. Once these are resolved we can turn to the stunt itself. So one gets on board a boat with the transmitter, heads out to sea, gets winched up with a paraglider – and then what? As the chute take-off can only be accomplished with a headwind the time of day is important. Because land wind and onshore wind change during the day. We had no choice but to take off seawards. This also means that the boat had to make a large circle back and pass along the right stretch of beach as closely as possible with the helicopter ready for takeoff; and depending on the wind situation with fairly high speed. When viewed from the ground such a paraglider seems to move at snail's pace. But this is quite deceptive: try to keep up by sprinting along, just for fun. No chance!

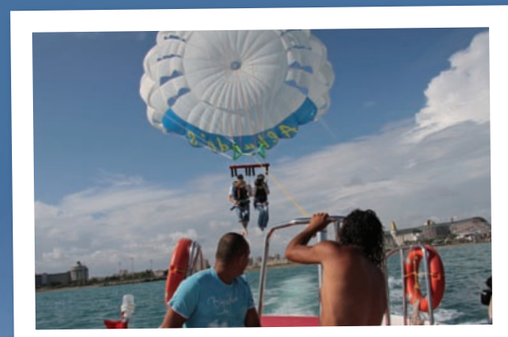
The boat needing to take such a large turn for changing its direction caused some follow-up problems.

Welcome aboard! After final information was exchanged via walkie-talkie the action could begin. As a water landing with the transmitter could not be ruled out Tobias had programmed the heli into a FC-28 beforehand. Losing a transmitter is never desirable, but the loss would be significantly reduced in comparison to a FX-40

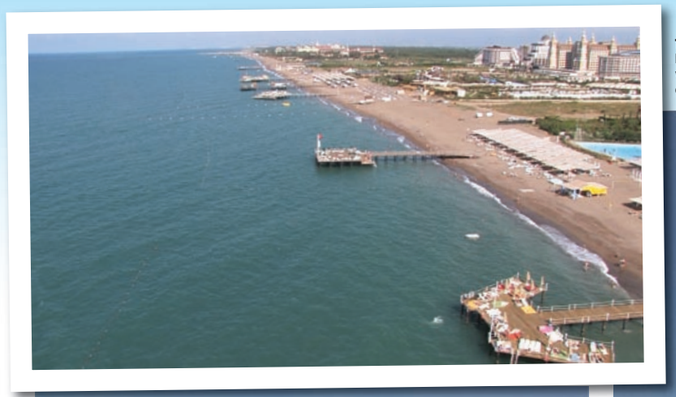
The first one was that 2.4GHz, in contrast to 35MHz, is not sufficient to bridge a distance of several hundred meters in the prevailing conditions. During the Cessna stunt on the Philippines the range was approximately 400m, and during parasailing over water with high air humidity it was equally short. In essence: the heli must sit on the beach with a live receiver, waiting for a glitch-free signal, and only then may the power pack be connected and take-off be initiated. The timeframe for connecting the battery is extremely short! Did we already mention that radio communication with boat noise in the background was a problem? We solved that with defined horn signals from the boat.

The next difficulty consists of the fact that things always look different when viewed from above. The paraglider ambles along at an altitude of 50 meters and one can oversee several kilometers of beach. Sadly everything looks

Mobility is everything, so we used compact camera equipment both on board and in the air. After several trials concerning water spray the protective hoods on the camcorders could be removed again; during the ride it was determined that the danger of corrosive salt water was only marginal. Thus the only big challenge left was the rough water which made steady pictures impossible



After the paraglider has been inflated at speed the passengers are eased into the air with a winch. With two aboard the chute the boat had to add considerably more power. Depending on the wind direction the boat reached its limits despite the 350hp



Take-off! After a perceived eternity the 10s T-Rex 600 from Freakware has made it to the paraglider. The impression when looking from the shore is deceptive: the whole formation moves forward swiftly, a fact that must be taken into account during 3D manoeuvres

This is what the situation looks like shortly before the flying start of the helicopter: structures on the shore appear to be tiny, the machine is very hard to discern. The surroundings look markedly different from altitude (can you spot the heli?!)

Better stay away from the tow cable! The rotor blades could actually cut it. And more than that, it is quite hard to reliably estimate the distance between heli and cable. So one should try and fly below or beside it

quite uniform from up there, and when approaching at a distance of 200 to 300 m it requires focused concentration to see the spec of a helicopter on the beach. This is the point that actually caused some hectic moments as the machine was not really discernible at first sight. Finally the horn signals from the boat: the battery is now hooked up. Switch to 3D. Hopefully the heli is now sitting correctly on the wet sand so that the vibrations caused by revving up do not cause it to sink in. Nicolas Kaiser had dug a semicircle-shaped trough for the tail so that it at least had enough leeway. It was interesting that motor spool-up was clearly audible from the paraglider, as hardly anything could actually be seen.

Off we go, full pitch, then fore cyclic! The boat is going fast, no time for experiments. Is the crate flying in our direction when adding forward elevator? Or is it drifting sideways? Leisurely the pin-head sized heli appears to be moving towards the paraglider. 10s battery power combined with a good motor – shouldn't there be more punch to that? But then you realise it: after having approached to 100m the model's relative speed becomes bullet-like! It must be added that the paraglider harness is really tight and makes it close to impossible to turn and look back; so it is vital that the heli doesn't fall back.

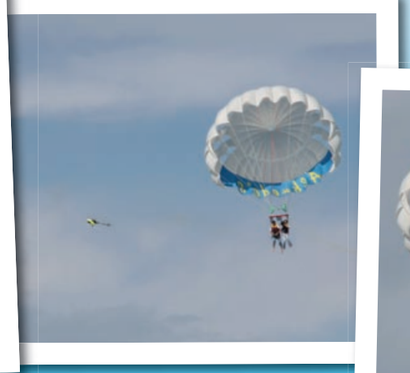
Heli in range of sight – so let's

Please don't step into the rotor disc! It is a truly strange feeling when the heli flies below your own feet

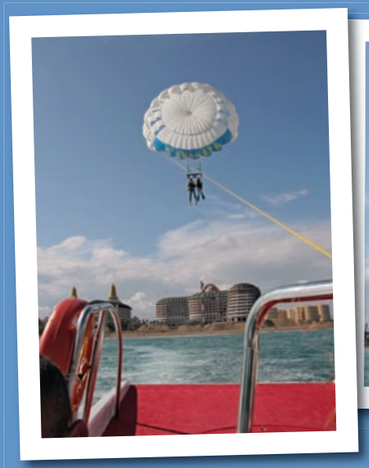
do a loop around our tow cable! One thing to be particularly careful about is the apparently fixed relative position of the helicopter in relation to the pilot, when in reality it is flying quite fast, as our whole rig is actually in motion. That's why the helicopter sometimes reacts delicately to control inputs, and when during flips or similar manoeuvres not enough pitch is added simultaneously it immediately loses speed and the paraglider flies directly into the main rotor. We already knew about this phenomenon from a number of earlier stunts (e.g. the flight from Peter Jakadofsky's full-size Alouette II) so this came as no surprise. And just for the record: you should stay away from the tow cable because the rotor blades could actually cut it in unfavorable circumstances.

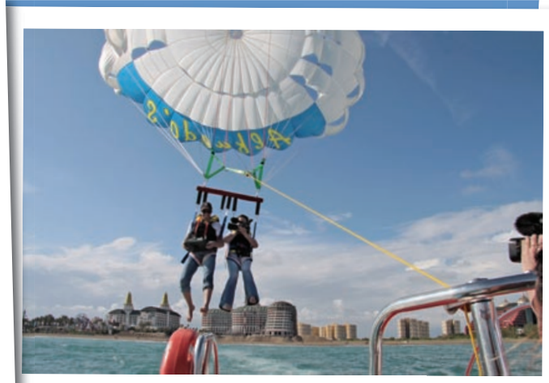
After a few minor problems with the cameras (strong swaying on the boat and focus problems of our chute camera) it eventually would have been time for the landing. In a distance of 200m the helicopter should have autrotated onto a cleared stretch of beach; at least as well as this was possible from so far away. Sadly we had missed that landing slot due to focusing on the cameras! As stated before it is not possible to look back in the paraglider gear, so the helicopter

"It is a truly strange feeling when the heli flies below your own feet..."



After a few difficulties with the camera we missed the time slot for landing – with serious consequences and the outlook of an emergency ditching with the machine a total loss. See text for details!





After a successful mission Tobias and Saskia are hauled back into the boat. For this it must travel away from shore into the wind

had to be flown out towards the open sea again. And quite far out at that, because the boat now turned away from the coast and at this point should have recovered the chute. And despite the painstaking preparations it was now unclear how to proceed. Landing on the boat was not an option, so the heli was most probably doomed.

And then there was this thing about the 350hp. With a screaming engine our alert Turkish captain Caner commenced a go-around, making a large turn at full throttle and heading towards the shore again. Would our batteries last? I already flew the helicopter as close as possible towards the beach. But it was now hard to discern how high the machine was flying and if it was already over the beach or not. In the end we preformed an autorotation beside a wooden pier as there wasn't a single soul there. Wow, what a landing! Finally, the paraglider was retracted to the boat, a big sigh of relief, and that was it already.

INSANITY NEVER SLEEPS – NEVER EVER!

How about those other six R/C heli stunts during Mission Turkey? Well, stay tuned for further action! And even more, check out HeliGraphix.com for some additional fantastic picture and film footage. So see you again shortly! Until then enjoy your helicopters – and fly safely!

In Captain Caner's words: ***"In 16 years I have never ever met such crazy people as you guys!"*** Next he had to call his colleagues and tell them all about this insane helicopter stunt

All smiles: A fantastic team cheering after a challenging R/C helicopter mission. It couldn't have worked any better!