



PILATUS PC21

Jon Davison's air-to-air photo shoot
over the Swiss alps.

THIS WAS PART OF AN ON-GOING COMMISSION BY SWISS AIRCRAFT MANUFACTURER PILATUS, TO PROVIDE A2A IMAGES OF THEIR AIRCRAFT OVER UNUSUAL LOCATIONS.

This shoot was no exception. This particular assignment was to shoot their new PC21 military trainer aircraft in the colours of the Armée de l'Air, prior to their delivery to a French training squadron. My wife Jude and I were to be staying at the magificently placed Hotel Waldegg near Engelberg on behalf of Pilatus.

The Pilatus aircraft factory itself is located at Buochs airfield in Stans, on the edge of Lake Lucerne, with the majesty of the Swiss alps being just a short flight away. The shoot was to be over the Swiss Alps between Bern and Lucerne. Pilatus had secured a Shorts Skyvan from Pink Aviation in the Czech Republic as my camera-ship. This would offer a great rear view perspective for those classic nose on angles. The pilot Philip Artweger, was a highly experienced operator of the Skyvan, very familiar with dropping skydivers out of the back of his aircraft!. The briefing was held at the Pilatus HQ at Buoch airfield, and included Pilatus Test Pilots Moritz Gasser (PC-21), Reto Obrist (PC-21) and Marc Michel (Skyvan), Philip Artweger, myself and Jude, plus Jerome Zbinden the marketing director from Pilatus.

Jerome as always had prepared very clear objectives and defined flight paths for the shoot over the Alps, including a shot of the PC21 flying over the Brusio Viaduct just as the Bernina express from the Rhaetian Railway starts its climbs up the spiral. Next was the Rheinschlucht, or Ruinaulta rockslide canyon as a background, then the Alps in general. But of course to get to these locations from Stans meant that we had to fly over the Alps, above 10'000 feet. Normally this would be not pose a problem for an aircraft and its passengers. But we would be in a Skyvan kitted

BELOW Pilatus test pilots Marc Michel, Moritz Gasser and Skyvan pilot Philip Artweger going over the planned approach to Brusio viaduct. **PREVIOUS PAGE:** The shoot environment from my perspective. You can see the shadow from our Skyvan on the nose of the PC21, so here it's too close.



out for skydiving with the loading ramp wide open. And being a skydive aircraft meant there were no seats, except Philip and Marc who would be seated up front on the flight deck. My position on the other hand would be down the back, on the floor of the open cargo ramp.

So two things immediately went through my mind. A, It would be past 9 in the morning by the time we got airborne, so turbulence would be a big problem over those massive peaks, and B; it was going to be very cold! So I made sure I had warm clothes as



well as my flying suit, gloves and helmet. As expected, the climb over the mountains was VERY rough and I found myself on my back on the floor of the Skyvan a few times, having no control over my position whatsoever, much to the amusement of Reto just behind us in the PC21, looking up at the bouncing photographer just ahead of him. Even though the flight over was a lot of fun but because of the turbulence over the alps there was no chance of any pictures until we got lower.

It is always an exhilarating experience in the air with nothing between you and your subject, but flying over these massive snow covered peaks and glaciers just below me was staggering. After a few glamour shots over the alps, we descended down into the calmer air of valleys for the Brusio Viaduct shoot. This location brief was tricky, as we had to get all the elements in place; the valley walls, the aircraft, the train, the spiral, and the village, plus a blurred propeller, all at the same time in the same frame. Jerome would be monitoring the spiral web cam, to check our progress, from the factory at Stans. So we had to get the shot!

Shooting the over the alps I had worked out the right distance away from us for the PC21 (only a few metres) and was happy with the positioning so that our shadow would not be visible on his nose. I checked my exposure so I could get a good prop blur at 1/30th of a second with an ISO of 150 so the aircraft would be sharp but the prop would have a good amount of blur to it, as long as there was no turbulence in the valley. This is the trade off here. The client wants to show the propeller disk as a blur, because a static prop looks like the aircraft is hanging in the sky, but to achieve this you need a slow shutter speed of 60th or less. Yet you can only get this if you have quite stable air. But if is turbulent you need a fast shutter speed as everything in the frame is moving in all directions, but this defeats the purpose. So it is very difficult to get the right combination. So I was hoping it would all come together nicely. The only possible solution as a back-up would be to blur the prop

later in post-production. Back at Pilatus, Jerome was coordinating with the Rhaetian Railway train driver, whilst monitoring the web cam at the spiral. When the air was a lot more stable, it was time for us to work out the visual details.

We did one pass over the site before the train arrived, just to time it and see what problems there might be, and there was an issue.

Because I am so used to shooting to the side, in front of, or behind my subject from a helicopter or fixed wing aircraft, I had not taken into account that because I was facing aft, I was in effect flying backwards, therefore I could not see what was approaching us. So the first I saw of the viaduct was when it raced by just beneath me going away from me.



The first test fly over the viaduct. Any earlier and the bridge would have been in the shadow of the valley. But Philip's countdown worked well.

I could have easily missed the shot. So on the next run I asked Philip to give me a count down from 5 to 0 as we approached the viaduct, which worked perfectly. Because the positioning between us had been worked out and relayed to Reto, I could then just concentrate on the right moment. I took three shots and that was it. This is pretty typical of the way it usually goes, theres a lot of planning, then a few intense seconds of action and on to the next location to do it all again. So afterwards I sit back and watch the world slip by just below me. Jerome sent us a screen grab from the Brusio viaduct webcam, with a 'thumbs up'



ABOVE: Jerome's screen grab from the station cam. You can just see the dots of our two-ship formation as we head down the valley after the shoot.





LEFT TO RIGHT: Philip and Moritz doing last minute checks of the planned route. The group at Pilatus after the days session. Philip and Jude at the Skyvan after the shoot. Jerome, Jude and Philip at the Hotel Waldegg near Engelberg.