PILATUS PC21

BELOW: Pilatus test pilots Marc Michel, Moritz Gasser and Skyvan pilot Philip Artweger going over the planned approach to Brusio viaduct. **OPPOSITE:** The final frame with all the elements in place!

THIS COMMISSION WAS TO PROVIDE AERIAL PORTRAITS OF TWO NEW SWISS BUILT PILATUS PC21'S FOR THE FRENCH AIR FORCE (ARMÉE DE L'AIR), PRIOR TO THEIR DELIVERY TO THE SOUADRONS IN FRANCE.

The location was to be over the Swiss Alps between Bern and Lucerne. Pilatus secured a Shorts Skyvan from Pink Aviation in the Czech Republic as the camera-ship. This would offer a great rear view perspective. 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 in Stans, and included Pilatus Test Pilots Moritz Gasser (PC-21), Reto Obrist (PC-21) and Marc Michel (Skyvan), Philip Artweger, myself, plus Jerome Zbinden the marketing director from Pilatus.

Having done this many times before, and being a good photographer himself, Jerome had prepared very clear objectives and defined flight paths over the Alps for the shoot, 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 to get to these locations from Stans meant that we had to fly over the Alps, above 10'000 feet. Normally this would be no problem for an aircraft and its passengers. But we would be in a Skyvan kitted out for skydiving with the loading ramp wide open.

This meant there were no seats, except those for Philip and Marc, who would be up front on the flight deck. My position on the other hand would be down the back, on the floor on the open cargo ramp. So two things immediately went through my mind. 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 it was going to be cold! Needless to say, the climb over the mountains was very rough and I found myself on my back on the floor of the Skyvan a few times, much to the amusement of Reto and Marc in the PC21's just behind us. It was a lot of fun but because of the turbulence 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, and in this case flying over these awesome mountains was exhilarating to say the least.



The Brusio Viaduct shoot was tricky as we had to get all the elements in place, including the valley walls, the aircraft, the train, the spiral, and the village, all at the same time in the same frame.



Back at Pilatus Jerome was coordinating with the Rhaetian Railway, whilst monitoring the web cam at the spiral. So no pressure at all! When we got lower into the valley the air was a lot more stable. So time for me to work out the visual details. On the way down I had checked the right distance away from us for the PC21 (only a few metres) and was happy with the positioning so 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 image would be sharp. There is always a trade off here. The client wants to have a blurred propeller, as a static one looks like the aircraft is hanging in the sky, but this means a slow shutter speed of 60th or less. So you need stable air. But if it is turbulent you need a fast shutter speed as everything in the the frame is moving in all directions, but this defeats the purpose. The only possible solution as a back-up would be to blur the prop later in post-production. So it is very difficult to get the right combination.

We did one pass over the site before the train arrived, just to time it and see what problems there might be, and luckily there was a problem. 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 only the pilot could not see what was approaching us, not me.

So the first I saw of the viaduct was when it raced by just beneath us going away from me. 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 we had agreed on the positioning between us, I was then able to concentrate on the right moment.



I took three shots and that was it. This shoot was typical of the way it usually goes, a lot of planning and waiting for all the elements to gel, then moments of intense action. So afterwards I sit back and watch the world slip by just below me. With your camera to your eye all the time you only really see your subject, not the drama all around you. A pleased Jerome sent us a screen grab from the Brusio viaduct webcam, with a 'thumbs up'.



OPPOSITE: The shoot environment from my perspective. You can see our shadow from the Skyvan on the nose of the PC21, so here it's too close.

ABOVE LEFT: Jerome's screen grab from the station webcam. You can just make out our two-ship formation as we head down the valley after the photo shoot.









