# The Swiss Also Make Aeroplanes

Alan Jackson

An immaculate new PC-12 awaiting delivery.

All photos: Alan Jackson

Noting the occasional piece concerning non-rail travel in *Swiss Express,* I wondered whether another mode – the air - might interest Society members. I am sure that I am not the only member to have had his interest piqued in past years by the sight of a sleek fighter aircraft taxiing out of the side of a mountain and across a valley road before taking off from the parallel airstrip; or to have looked at Swiss fighter prototypes in the Luzern Verkehrshaus. That said, some may be unaware that Switzerland remains home to a very active aircraft manufacturer, Pilatus Aircraft, based at Stans, Canton Nidwalden, where it employs some 1750 people. In June 2014 I was fortunate to take part in a visit to the factory with a group from the Honourable Company of Air Pilots.

A Hawker Hunter crossing the road in 1972.
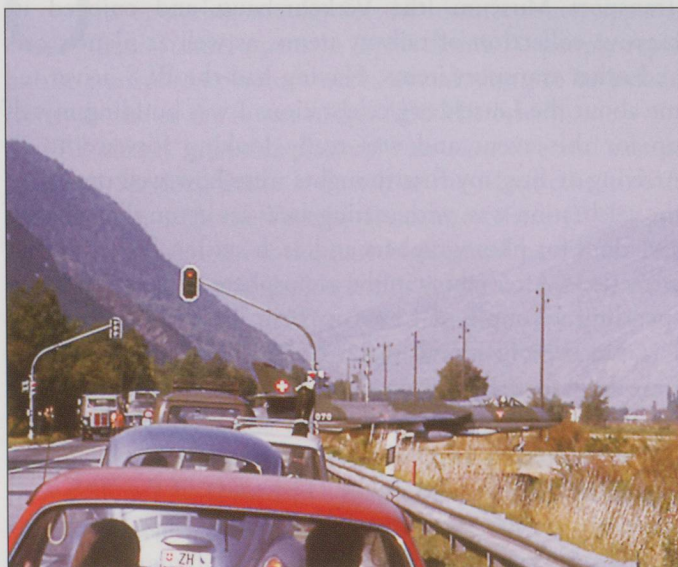
Pilatus Aircraft was formed in December 1939, with the realisation that European war meant that Switzerland could not rely on outsiders for its aeronautical needs. Over the next twenty years the company produced a number of prototype aircraft, none of which was built in any quantity, and was involved in modification and licence-production work. Its first real success was the extraordinary short take-off and landing PC-6 Porter, which had its first flight in 1959. That first prototype is still flying, as are about half of the roughly 600 Porters built since, and the type remains in production. Capable of taking off from and landing on very short rough strips and, ski-equipped, from snow, anyone who has seen a Porter in action is unlikely to forget it: its flying sequences

An artistic view of a PC-12 spinner.

provide probably the only memorable parts of the 1990 film Air America.

Pilatus's most successful aircraft to date is the very versatile turboprop-powered PC-12. This single-engine aircraft, of which more than 1,200 have already been built, is in widespread use worldwide. Its many roles include business executive transport (with up to nine passengers), cargo, air ambulance, and military special operations. By way of example, the Royal Flying Doctor Service in Australia has thirty PC-12s; like many other users they find the aeroplane's large cargo door and short field performance invaluable.

Pilatus is also noted for its success in the production of training aircraft. Currently in production are the PC-7 Mk II, the PC-9 and the PC-21. So far more than 600 'PC-7 family' aircraft have been sold to 22 air forces, including a current order of 75 to the Indian air force of which half have been delivered. More than 260 PC-9s have been sold to 15 air forces. 131 PC-21s have been sold so far, and the company sells this aeroplane as a 'flying simulator', with embedded simulation and emulation of fighter systems.

The latest Pilatus venture is the PC-24 business jet. Due to be rolled out in public on 1st August 2014, the first aircraft was in an advanced stage of construction during our visit, and sadly for us was behind closed doors. The subject of a $400m investment by the company, the PC-24 is designed to share the PC-12's ability to fly from unpaved runways; like the PC-12 it will have a large cargo door, but with greater carrying capacity and at higher speeds and altitudes. The company's reputation for delivering high quality products to meet a well-defined need is reflected in the fact that before the type's first flight, production was already sold out through 2019.

We began our tour of the factory in the magnificent main assembly hall with its timber roof, the largest such structure in Switzerland, where we saw examples of the PC-12, PC-7, PC-9 and PC-21 aircraft complete or close to completion. Our tour then continued with our two guides to other production departments. PC-12 wing and fuselage construction, from kits produced at Stans, is outsourced to the Czech Republic, Poland and Portugal: this is necessary because of Switzerland's uncompetitive exchange rate which makes Swiss labour too expensive in US Dollar terms. Airframe fit-out is at Stans, and our tour included PC-12 and trainer production facilities as well as machine shops where parts are fabricated and the paint shop. Parts production techniques range from the traditional to the latest CNC processes and composites, and it was interesting to see the extensive marking of individual

TOP: Fitting out a PC-12 fuselage.
MIDDLE: A PC-12 wing is fitted out.
BOTTOM: Shiny new PC-12 flight deck.

small components to ensure traceability.

After an enjoyable lunch in the canteen we walked to the simulator centre, which is on a separate Pilatus site. Here we split into groups to experience the PC-12 simulator with Pilatus test pilots, and the PC-21 simulator with an ex-RAF instructor. It proved difficult to curb our enthusiasm

A close look at a new PC-12 and its large cargo door.

An upgraded PC-7 of the Swiss Airforce.

A heavy hint that time's up - all the valleys fog-bound – luckily just in the simulator.

In the PC-12 simulator.

for the simulators; and, despite the session being extended by an hour, the last man out of the PC-21 needed the encouragement of all the airfields below him becoming fog-bound! Thus ended a most interesting and enjoyable tour.

It remains true of course that no stay in Switzerland is satisfactorily completed without several railway journeys. Marion and I had arranged to stay on for a few days after the Pilatus visit, this time in Beckenried on the south shore of Vierwaldstättersee. We made extensive use of local transport, with Stans station readily accessible by PTT bus (complete with free Wi-Fi); and with all the usual lake steamer pleasures accessible from the village ship station. We had two fine days on Rigi, with the Vitznau Rigi Bahn fully open; on our last visit, significant track work and the rebuilding of Kaltbad station meant no services from Vitznau to the top of the mountain. Ron Smith's recent report in the magazine provides the latest news on current and planned work on the Rigi Bahnen. One of our walks took us along the route of the Rigi Scheidegg Bahn, at its completion reputedly the highest adhesion railway in Europe. Sadly closed in 1931, the former trackbed provides easy walking and great views. Along the way are a few reminders of the railway's past. Carriage number seven now stands near Unterstetten as a holiday cottage, its axle boxes providing cast-iron evidence of its RSB ownership. Also near Unterstetten is the 50m long viaduct which used to carry the track: although this is in need of some serious repairs the path over it remains open. 🇨🇭

BELOW: A VRB train arriving at Kaltbad station.

A descending VRB train at Rigi Kaltbad.

The RSB viaduct in need of repair.

Work still in progress at the new Kaltbad station.

RSB coach No. 7 beside the footpath.

To Switzerland in Guineas – A Postscript
Geoffrey Kichenside writes:

In my article on Page 21 of *Swiss Express 119* I now realise that I wrote '… getting off a Furka-Oberalp steam special on the open mountainside, to take a close look at the Steffenbach folding bridge …' when in practice our train was hauled by an electric locomotive as is shown in the adjacent photograph. I have no excuse for the error other than perhaps the passage of time! The steam special came later on the Brig-Visp-Zermatt line, and that was an event in itself. The locomotive on our train could barely reach walking pace up the rack sections and some tour participants got off the train, walked up the incline ahead of the train, photographed it, then got back on as it slowly caught up.

Editor's Note. It was originally intended to run Geoffrey's excellent article in two parts, hence its sub-title. Due to a last-minute change of plan it appeared as one long piece. *There will not be a Part 2!* 🇨🇭

🇨🇭✔ *SwissTip* *Good ideas and information about Switzerland from travellers.*

If you're staying in the Ticino and want to do the trip over the Lukmanier Pass as detailed on Page 44 of the December 2013 *Swiss Express*, it's easier to do it in the anticlockwise direction (Bellinzona – Thusis – Chur – Disentis – Biasca). Leaving at 09.45 you're back by 17.30, otherwise a very early start is needed to do it the other way round. 🇨🇭

Please mention 'Swiss Express' if you contact an advertiser in the magazine.