

The Zipper

By Bob Hyndman



Wikipedia— Image from the René Francillon Photo Archive.

When I arrived in Zweibrücken from Cold Lake, I was seconded to Test Flight and reported to F/L [Bob Ayres the Wing test pilot](#). Bob started me out on the light and easy stuff, but I gradually worked my way up to “Full Card” testing.

Bob was very experienced (two test pilot schools) and had flown the 104A with the US Tactical AF. The A was lighter, more agile than our G model and very much a go-cart.

A full card test flight for me involved a damper check at Mach 1.4 and a Mach 2 run. Damper failures could be very nasty. One had to be very alert to where the aircraft was pointed on a Mach run.

Bob was a great instructor and mentor to me. At the time, the Zwei bar talk was one of disappointment in the 104's fighting abilities by all the squadron lads with Sabre and sometimes Golden Hawk backgrounds. They were losing all their mock combats with the Mirage, Hunters, F-100s and the F-86H. As a former Clunk driver I knew nothing of Yo-Yos and a Mirage would be in my six in less than a minute. The beast simply would not turn subsonic, even with Maneuver Flaps extended and pulling into the dreaded shaker.

The 104 was a different animal supersonic. From brakes off to Mach 2 with full tip tanks typically took less than 5 minutes. Acceleration from Mach 0.99 to Mach 1.4 was a little sluggish but from Mach 1.5 when ram air joined, the aircraft came into its own. I think a normal run consumed about 1,000 lb. to Mach 2. In level flight at Mach 2 the throttle was well retarded to keep from exceeding the inlet temp limits. If one climbed away in full burner from Mach 2 at the tropopause, the service ceiling of 58,000 was soon reached and the throttle again retarded. Bob defined the useful service ceiling as when the Vertical Speed Indicator decreased to 1,000 ft/min up. Bob told me to never fly above the service ceiling because of the increased risk of flame out, compressor stall, engine over temp and loss of cabin pressure. I never did, save for once when I brushed 60,000 just to say I had visited. A cousin of mine, based at Baden, told me he once zoomed to 75,000. Rough handling there could initiate a pitch-up and spin.

In level flight at 58,000 and Mach 2, the aircraft traversed 20 nautical miles a minute. Fuel burn was only 100 lb. a minute. So 1,000 lb. of fuel were worth 200 n.m. of range. If one retarded the throttle to idle then slowed to 300 kias and held that speed in descent, one could coast for 300 nautical miles and burn only 300 lb.! Three hundred, 300 and 300! The aircraft had an incredible amount of energy at Mach 2 at service ceiling, if one wished to turn, to zoom, or to dive. Beautifully balanced controls and crisp turning at that speed. Bob told me to experience it all, and I did stay mute on my high altitude visits. He was very concerned for pitch-ups and spins from the newer pilots. We did not have pressure suits.

In our targeting system, pilots, in conjunction with Intelligence, drafted our outbound legs to targets which were then sent to SAC Omaha for vetting. Return legs were not vetted. I was at 58,000 ft because ops needed some rules of thumb for a high level return from certain targets. On leaving a target we would be at Mach 0.95 or better, devoid of pylon and tip tanks.

At Zweibrücken we had a genuine boffin, Suds Sutherland. Suds was working in Intelligence on perfecting his target radar predictions for bad weather bombing. I was sent north with his plastic predictor to target a railway bridge on the Elbe. I was running north just inside the ADIZ, and just west of Berlin when I heard the warning “All Allied aircraft not certain of position turn west now.” I was at the usual 200 ft., 450 knots and knew my position exactly. So I continued on to do my mock run on the bridge.

Off the target, I turned directly to Zwei and started my climb to my return at long range cruise just shy of 30,000 ft. Then “Wham” and a queer coloured 104 with a large iron cross decal on its side went by, supersonic on my left side. Then “Wham” again on my right side as the Number Two followed his leader into a steep left climbing turn. I soon lost them from view as they climbed above their contrails.



I was almost a victim of a classic 104 sidewinder or cannon supersonic attack. I soon learned they were German Navy interceptors based near Jever and that the Luftwaffe also had a few 104G interceptor squadrons. Much later, I learned that the Norwegians were running practice intercepts on U2's returning to Bodo and the Danes, with French permission, were running 60,000 ft practice Sidewinder attacks on returning Concorde's. A shame our many Sabre jocks, including those of 427 Sqn, with their wealth of day fighter experience could not have stepped into the 104 Interceptors.

Soon after my visit to the Elbe a gentleman came from Metz to question me.

“Did you hear the warning?” “Yes.” “Did I turn west?” “No.” “What did you hear - yak yak?” I remember the flight date well: 10 March 1964. It happened that a USAF RB-66C based at Toul about 100 miles SW of Zwei was on its weekly Intel milk run north along the ADIZ. These Elint B-66's were usually crewed by a pilot, a navigator, and a wizard. Somehow this one drifted across the ADIZ and into East Germany where Mig 19's promptly shot it down. The crew missed or ignored the same radio warning I had received. Migs were always armed and always fired on the first pass. That shoot down stirred the Allied hornet's nest and the Navy 104's that bounced me was the reaction to my suddenly popping up on North German radar after leaving the bridge.

That B-66 crew was lucky. Very lucky. All three ejected and landed in East Germany. Instead of being whisked away to Russia the next day, I later learned, they were released in an exchange. Had my lookout that March day been better, I might well have witnessed a Cold War shoot down. And not suffered a nasty bounce on my return leg.

Atlas 33

Ed Note: An add-on to Bob's story. In the F-86 era we occasionally would have a two or four plane section run out low level to the ADIZ and then turn parallel to it and climb to pop up on the other guys radar. Supposedly to check their reaction time. Our arrival at the ADIZ was a “guessestimate” based on timing and our main navigation aid, an ADF. However since the ADIZ at its narrowest was about 100nm wide and managing to get yourself inside the East German border was a clue that your navigation classes had been missed. Only at altitude could Yellowjack, the Canadian military long range radar, pick us up and provide accurate positioning. The guys on the other side had two very strong beacons, that I know of, that would mimic the frequency of two lower power NATO beacons close to the actual border. One was near FULDA about a 100nm north east of Frankfurt, at the start of the Berlin corridor, and the other was east of Munich in an effort to entrap the unwary. Inadvertently, using either of the false beacons would have us crossing the border with a possible shoot down and capture likely. See next page for a look at a navigation map in 1960. For anyone younger than forty the little rectangles dotting the map with brown square around them (faded scotch tape) were ADF frequencies and the little dots and dashes something called morse code... Sorry, couldn't resist in this day of military satnav being able to pin point a target to within ~ 0.1 meters.

See Next Page for ADIZ map

F-86 Navigation without Yellowjack

