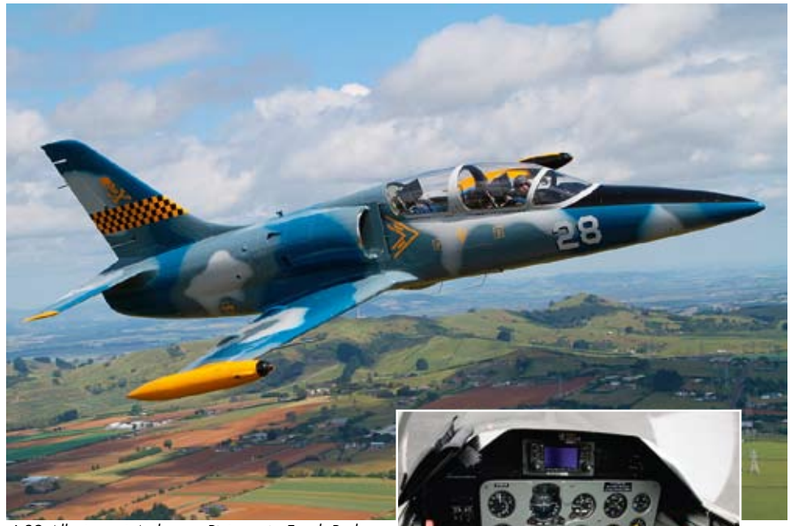
A Change of Pace

Contributed by Frank Parker

FOR THOSE WHO know me, my forte is propellers and preferably 60 years old; a result of formative years in the RNZAF and training on Harvard's which are still my first equal favourite along with the P-40.

Nonetheless, it was with some enthusiasm that I agreed to help my friend who had acquired an interest in an L-39 Albatros to learn to fly it. I should have noted to myself a similar discussion 25 years ago when I offered to teach another friend to fly his Hughes 300. I now own several of them (or they own me) and he spends his time playing golf!



L-39 Albatros at Ardmore. Picture via Frank Parker.

First things first, better learn to fly one myself, so time to call a favour (in advance I may add) from my friends in New Plymouth and get checked out. Thanks Peter and Brett, the cheque's in the mail! Next as any instructor knows, keep one step ahead of the student and the rest is easy.

The L-39, apart from being a cool looking aircraft, and this example in particular with a striking blue Arctic camouflage masquerading as Albatros 28, was the Eastern Bloc standard jet trainer of the 1980's and 90's. With the shift in politics in the 1990's these aircraft became available in the Western Civil market at affordable prices and the rest is history. There are several hundred operating in private hands in the USA where it is dubbed the Gucci Jet by those who don't appreciate it.

A Pilots' Aircraft

As with any Eastern aircraft I have flown (Yak 52, Nanchang, plus a bit of heavy metal) the Albatros is a pilots' aircraft. The systems and controls are simple, the ergonomics easy and the handling delightful. If you have flown a Yak 52 or Nanchang then this cockpit will feel familiar.

My similar experience in this class of aircraft is the Strikemaster and well, there's the 'British way' and 'Another way'. The Albatros just fits better and feels nicer.

The L-39 is self contained with no ground support required. It has a mini turbine which provides 'air' to start the main engine. Engine starting is nearly automatic (the pilot has to select fuel 'on') and engine handling is 'pilot proof': go fast and go slow! It really is that simple.

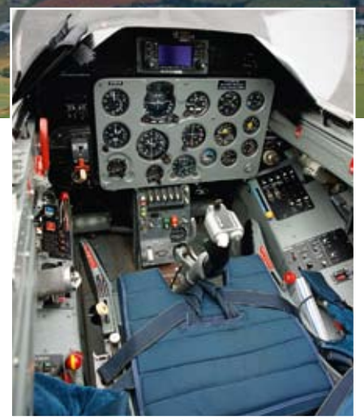
The aircraft is capable of operating from grass strips as the intakes are clear of the FOD line, the undercarriage doors close when the gear is extended to prevent FOD ingress, the undercarriage is forgiving, the list continues.

Instruments are basic Soviet dials and once you interpret the different presentation they are accurate and intuitive.

The only minor glitch is the brakes which take a little bit of familiarity to gain a 'feel' for.

With a similar weight and thrust as the Strikemaster the performance is sprightly but not extravagant. It would compare to a light turboprop (Beech 1900) class of aircraft in overall performance. Basic aerobatics are delightful, a crisp rate of roll and loops requiring 3000 feet vertical.

In the circuit downwind starts at 180 knots, gear down then half flap at 150, base turn back to 130, full flap and across the fence at 110 knots. The aircraft operates from 4000 feet of seal without a problem.



Forward cockpit.

Conversion

All a pilot requires to fly the L-39 is a type rating which does require a Basic Gas Turbine (BGT) accreditation. While the aircraft is way beyond the basic Cessna 152 or Piper Tomahawk performance stakes, it was designed as a 'trainer' and is simple to operate. Any pilot with a grounding in retractable constant speed high performance aircraft, say Cessna 182, could aspire to fly it. The aircraft has no vices, systems are simple, handling crisp, and the stall is textbook. The handling notes suggest the spin is straightforward (but without ejection seats we have not ventured into this regime!).

The challenge in this class of aircraft is not so much pure flying but operating. With 70 minutes normal endurance, shortly after takeoff you need to consider landing. With this is consideration of field requirements, you can't head off to the nearest strip, so from Ardmore we need to consider Whenuapai, Auckland, Hamilton and Tauranga with a maybe at Matamata. Cross country cruise is around 250 knots which is easy if you're ahead of the aircraft but incredibly fast if you're not. You can get 'lost' at twice the normal rate!

Then there's the circuit, not that it's bigger than any 'lighty', but other aircraft are incredibly slow down-wind and on base, so you have to s-p-a-c-e accordingly.

NZ Warbirds recommends a period of supervision following type conversion. This is aimed to enable structured consolidation and save re-invention of normal procedures. Additionally, it's always more fun to play with a friend!

And so to my new student, an experienced PPL with time in the T-28 Trojan. He is progressing well and can't get the smile off his dial! Sometimes you just get lucky.

Cheers, frankly@xtra.co.nz

A perspective from the back seat

THE HIGHLIGHT of February (and possibly all of 2011) for your KiwiFlyer Editor was a ride in the back seat of the L-39 Albatros at Ardmore. With a big effort not to gush on incessantly about it, here's what an ab-initio experience in a jet feels like…

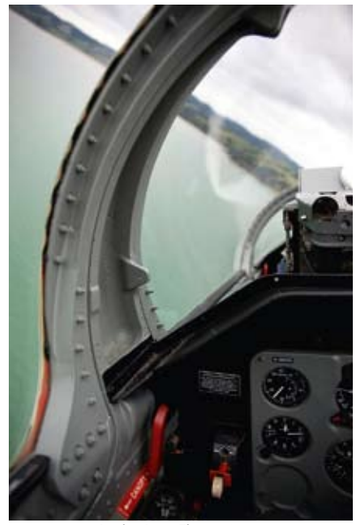
Standing alongside, a first impression was just how large the aircraft is. In the air and in pictures, the L-39 is sleek and elegant, which had somehow misled me into expecting it to be about three quarters the size it actually is, and with difficult entry to a cramped cockpit. In fact, the cockpit is spacious and entry is easy. Sitting on the tarmac, the aircraft has a lot of presence. You can feel the energy within, just waiting to be released.

Once on board and buckled in (shoulders, waist, and leg harnesses), Frank provides a safety briefing. After covering off the things you can't touch and the things you can, Frank explains; "That's the parachute you've just strapped into. It needs to be tight enough that you won't slip out if you need it." I tightened the straps just a little more to be on the safe side, then a little more again for extra safety. "If we have to get out, duck your head and then release the canopy." The reason for that is in case part of the canopy collides with your head as it departs the aircraft, and I'm thinking perhaps I should be wearing my helmet instead of this borrowed headset. "Then release this lever which disconnects your parachute from the seat. Try to jump out at a 45 degree angle to lessen the chance of meeting with the tail on the way. Then pull the handle on your parachute with both hands. If it doesn't work, pull harder, and the third time, harder still. Do you still want to come?" Yes, absolutely.

So Frank climbs into the front seat and begins the procedures for checks and start-up. In due course, we close the canopies. Anticipation, which is already high, starts to build further. Then the engine is started. It doesn't seem to matter how many times I hear a turbine start, it still gives me a tingle of excitement. There's something particularly intense about lots of energy in a small space, delicate engineering and control, and tens of thousands of rpm, not to mention what it all sounds like. When that's actually worth 3800lbf of thrust and you're strapped to it, the sensation is really quite a treat.

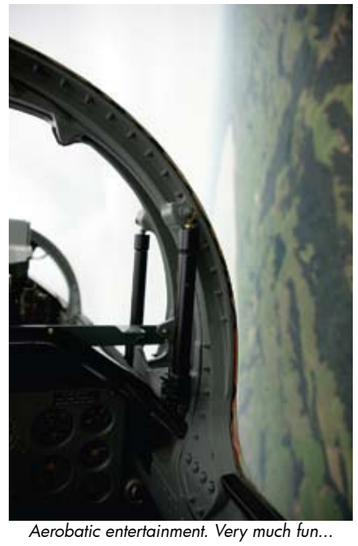
The next signal that something special is underway is when the cabin pressurises. As you're clearing your ears, the air conditioning comes on. It's quite a comfortable place to be.

Then it's time to taxi. Steering is by (touchy) differential braking, and we make our way to the holding point. The jet draws people out of hangars and offices to watch and most are thinking 'I wish I was in it'. I know this because I've thought it myself often enough. We hold at the end of the runway for traffic and run up checks, and then line up. With brakes engaged, Frank runs the engine up to full power, then brakes released, we're pressed back into our seats, and we're off. We use a lot more runway at Ardmore than I'm used to, yet somehow it all just seems a bit too effortless. And then we're flying. It's quiet inside, and very smooth. In fact it's so quiet that for a moment I consider what a shame it is to be leaving all that wonderful noise behind us, and not indulging in it as I would be if watching from the airfield instead of from the rear cockpit. Speaking of that, the view from the rear cockpit is exceptionally good.



In the Low Flying Area.

L-39 power: The Ivchenko Progress AI-25L



Aerobatic entertainment. Very much fun...

In no time at all, we're nearing the coast and Frank offers the controls for a trip south towards Kaiaua. The (unassisted) controls are very responsive and it's quite a delight to follow the bays of the coastline in and out, necessitating much turning and very little straight and level flight. In fact it feels a lot like you're sitting on a steerable arrowhead. This is already a lot of fun, and we haven't started any aerobatics or low level flying yet.

Once at Kaiaua, Frank takes over and we go through a range of wingovers, rolls and more, except for a loop as cloud cover didn't permit it. At one point we cut the throttle to idle and glide, very quietly for a long way with just a hum behind to remind us of all that horsepower waiting to be unleashed again. The long flat glide well demonstrates just how fast we had been travelling. When I win lotto…

Then it's back toward home through (perhaps I should say over) the Hunua Ranges and toward Ardmore's Low Flying Area for a quick "scorch around". And what fun that was. We'll have to go back there for more training another time. After that it was time to head for home, as I had deemed it important to fly past the house so my wife could take a picture. Trouble was by the time she realised we were coming, we had pretty much been and gone, so we have a big photo with a very small aeroplane.

We rejoined Ardmore for an approach and overshoot, then orbited to fit in with traffic, joined the circuit, and set up for finals and landing. Touchdown happens at what seems like quite a pace, then it's on the brakes to stop before the runway ends, followed by taxiing back to the hangar. What a ride!

We're met by the head of the L-39 syndicate, who I owe the biggest favour to, and also by George in the fuel truck. A bit less than half an hour ago, we started with full tanks and when George had topped them off again, the meter on the side of the truck said 419. For the benefit of my environmentally conscious wife, I calculated that we had probably covered about 130 useful kilometres and that had she consumed the same amount of fuel in the family car, she would have travelled more than 5000. Mind you, we got where we were going a lot faster and had infinitely more fun doing it. Cheers Frank. Very, very much appreciated. MN.