

Canadair Sabre 6

The Canadair Sabre was developed from the North American F-86E.

The Mark 6 was the ultimate development of this airframe, out-performing other cold war aircraft of the '50s with the help of the Orenda 14 engine producing a thrust of 7275 lb. (The F-86E used a J47 with 5450 lb. thrust.)

The Sabre 6 was used by the RCAF in Europe until November 1963. The 439 tiger squadron airplane modeled here is the one that I flew from Marville France to the scrapyard at Prestwick Scotland when our squadron ended operations at that time. The Sabre continued in use in the RCAF at the Sabre Transition Unit, preparing pilots for the F-104, for some years after that.

Links

http://www.427squadron.com/history/f_86.html POH and other materials

http://en.wikipedia.org/wiki/Canadair_Sabre

Models included

1. RCAF of 1 Air Division in France. (2 liveries)(I expect to have future liveries for 6 more squadrons) 439 Sabre tooth tiger squadron, and 441 Silver fox (checkerboard) squadron. Both were based at 1 Fighter Wing at Marville France.
2. Golden Hawks aerobatic team based at Chatham, New Brunswick, Canada.
3. Jagdgeschwader 71 "Richtofen", commanded by Erich (Bubi) Hartmann, Ahlhorn Germany.

Some notes on the model

1. To make the drop tanks work properly, fill the tanks before takeoff. The cockpit gauge will show 2700 lb. until the drops are empty, then the gauge will go down. If you drop the tanks before they are empty, or if you have not filled them to begin with, the engine will stop. (an x-plane peculiarity I think)
2. The starter system on the real airplane involves moving the throttle outboard and forward to start fuel flow. On the model, just turn on the engine master (actually the x-plane fuel on/off) and hold the starter switch to about 12% and release. If you don't turn on the engine master, for some reason it comes on when you hit the starter.
3. To adjust flaps to 1/2 for takeoff, move to the side of the cockpit (left or right arrow in 3d cockpit mode) and look at the flap. When the white section appears at the outboard end of the flap, it is at the right position.
4. The model includes a simulated A-4 gunsight. The sight responds to G forces to simulate lead required in a turn. Radar ranging is not simulated.
5. The airplane did not have strobe lights. Since strobes seem to be on by default in x-plane, there is a grey dot to the right of the external light switch. Click on it to turn strobes off.
6. The gear indicators use Red for up, Barred for transit, and Green for down.
7. There is a speedbrake handle/indicator on the upper left of the main panel. (yellow handle and three white dots)Speedbrakes can be moved to any position using this handle. They can be moved through the usual 2 positions using the keyboard. The actual airplane had the speedbrake switch on the top of the throttle, no indicator.
8. The sabre had no ILS and depended on GCA (ground controlled approach). The model has an ILS to simulate the GCA, just click on the lower part of the airspeed indicator to turn it on.

Typical Flight Procedures

Start up, trim nose up until yellow light comes on panel, set flaps to 1/2, release park brake.

On runway, hold foot brakes, run up to 80%, check gauges, release brakes, throttle to 100%

At 125 kt, ease nose up, lift off at 130-135 kt., gear up immediately, flaps up at 170 kt., throttle 98%

Hold shallow climb to 300 kt, maintain until mach .8, hold mach .8 for remainder of climb.

Level flight at 92% to 95%

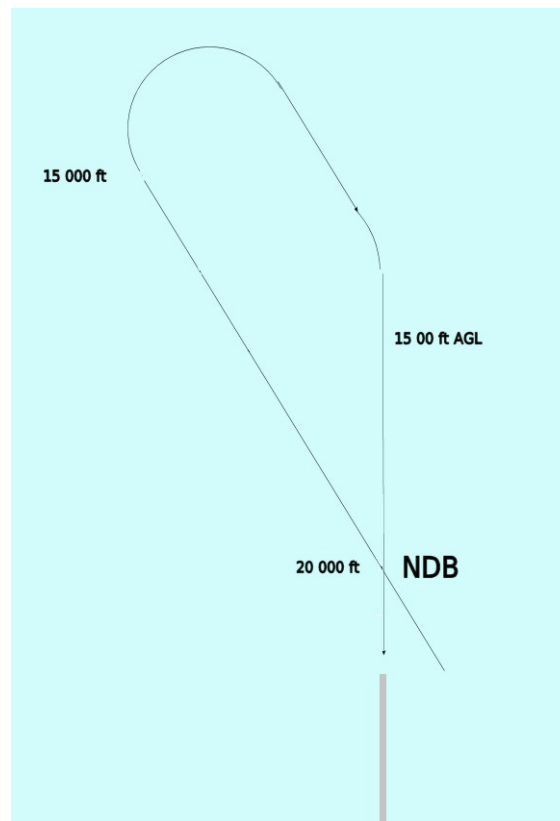
IFR letdown: approach NDB at 20 000 ft. 300 kt., heading away from the runway at 30 degree angle
on station passage, descend with full speed brakes, 80%, 300 kt.

at about 15000 ft AGL, turn 180 degrees to approach the runway centre line
turn on the simulated GCA.

level at 1500 ft AGL, lower gear and half flap at 185 kt. Slow to 150 kt, should be about 80%

lower full flap when glideslope is intercepted.

maintain 150 kt until visual. Slow to 135 kt at threshold.



VFR circuit: approach airport on runway heading at 300 kt (80%). 1500 ft AGL.

about 1/3 down the runway, break into a hard level turn, 180 degrees to downwind.

The sabre used idle power, full brakes. I suggest maintaining about 70% for the model.

at 185 kt, straight and level, lower gear and half flap

when in position to start base leg, full flap, start continuous 180 degree turn to runway heading.

about 80%, 35-40 degree bank.

slow to 135 kt by runway threshold, throttle to idle at threshold.

hold nose off for aerodynamic braking. Lower nose at about 90 kt.

My thanks to Larry Milberry, author of "The Canadair Sabre", for the excellent reference book.

Thanks too to Dan Klaue for his excellent videos on 3D modelling.