



# NARVAL

## THE DREADED SNCASO SO.8000

“If it looks right, it flies right” goes the old adage — but there are dishonourable exceptions; the SO.8000 Narval may have looked like a state-of-the-art post-war naval strike fighter, but its futuristic appearance belied its dreadful performance and diabolical handling. **JEAN-CHRISTOPHE CARBONEL** charts the development of the only two examples built



**T**HE FAMOUS French aircraft designer Marcel Dassault once opined that a beautiful aircraft should fly beautifully — the SNCASO SO.8000 Narval is conclusive proof that the direct opposite can sometimes be the case. This elegant-looking twin-boomer was designed in the immediate post-war period by a team led by Lucien Servanty of the *Société Nationale des Constructions Aéronautiques du Sud-Ouest* (SNCASO), who had designed the first French jet-powered aircraft, the same company’s SO.6000 Triton, and who later came to prominence as one of the designers of Concorde. The engineers responsible for the design of the SO.8000, however, were Messieurs Dupuy and Lemeignan.

### A DAUNTLESS REPLACEMENT

The Narval was intended as a carrierborne naval fighter and strike aircraft to replace the *Aéronavale*’s Douglas Dauntless aboard France’s aircraft carriers (at that time both French aircraft carriers were ex-Royal Navy — *HMS Biter* became *Dixmude*, and *Arromanches* was formerly *HMS Colossus*). On May 31, 1946, SNCASO received Contract No 5161/46 for the production of five pre-series machines and 65 production examples of the SO.8000. The same month, the project was announced by the aviation press — to remarkably little fanfare. Indeed, to have been more cryptic would have been difficult, magazine *La Revue Aéronautique* describing the new type merely as a “*chasseur au long cours*” (long-range fighter). At about the same time, Contract No 5269/46 was awarded to CGEA to supply three *doublets* (contra-rotating propellers) “for the SO.8000 fitted with Jumo 213 [engine]”. From this we can deduce that, at least in the short term, only three aircraft (or two — one doublet could have been reserved for bench testing) were planned.

It also suggests the type of engine selected to power the aircraft. Production of the German wartime Junkers Jumo 213 liquid-cooled V12 inline engine continued in France after the war as the Arsenal 12H. It was not the first choice of the designers, however, who had originally hoped to obtain a Rolls-Royce Griffon (ideally a Griffon 57 or 83, both specially adapted for contra-rotating propellers). This powerplant being unavailable, they turned instead to the locally-designed pre-war-vintage 1,480 h.p. Hispano-Suiza 12Z, development of a post-war variant of which was progressing very slowly. In the end the Arsenal 12H was selected in its place.

The choice of a powerful piston engine instead of a jet engine was understandable in 1946, as the availability and reliability of jet engines was still uncertain. Yet it is probable that the Narval’s unusual twin-boom configuration with pusher-configuration propellers would have made conversion to jet power relatively easy. Indeed, an unbuilt variant, designated SO.8010, was intended to receive a Hispano-Suiza licence-built Rolls-Royce Nene jet engine.

In June 1946 *La Revue Aéronautique* provided a little more detail on the SO.8000, describing it as a “long-range naval fighter for carrier operations. It should be fitted with either a Jumo 213A or a Hispano 12Z. One prototype is currently being built”. However, the magazine mislabelled it as the “SNCASO 3000 M”. Little more was heard on the type thereafter, until magazine *Les Ailes* devoted a full page to it in July 1949. The little bit of information which had filtered into the press in 1946 is interesting for two reasons; it shows that the Griffon engine option was either already forgotten or just wishful thinking on the part of the designers. Secondly, the misidentified designation suggests a land-based variant may have been an option at some point, as someone had felt the need to add an “M” (for *Marine* — naval) to it.

The twin-boom configuration may have been chosen because the propeller was enclosed or “caged” within the booms, which arguably added an element of safety for carrierborne operations. The doublet of contra-rotating Chauvière four-bladed propellers was clearly expected to require some design adjustments, and in 1948 a contract was awarded to SNCASO to build a mock-up of the SO.8000 for propeller trials. Considering that in 1948 the prototypes were already under construction, it is likely that work on these trials had begun before the signing of the contract.

Other design elements developed for operation aboard carriers included the following:

- a complex flap arrangement (“*hyper-sustentateurs*”) with double-slotted flaps running almost the whole length of the wing’s trailing edge. This was intended to lower the landing speed to 155km/h (96 m.p.h.). However, this would mean replacing the ailerons with retractable spoilers;
- folding wings outboard of the booms;
- a “kneeling” nosewheel function inspired by the USA’s North American FJ-1 Fury.

Curiously, no mention is made of an arrestor hook. The weight table established before the

**OPPOSITE PAGE** With its swept wings, twin booms and contra-rotating pusher propeller arrangement, the SO.8000 looked every inch the modern naval fighter when it was rolled out in 1948 — but the reality was to be quite different. This is airframe 02, actually the first to fly, with the original elevator without “ears”. VIA TONY BUTTLER