

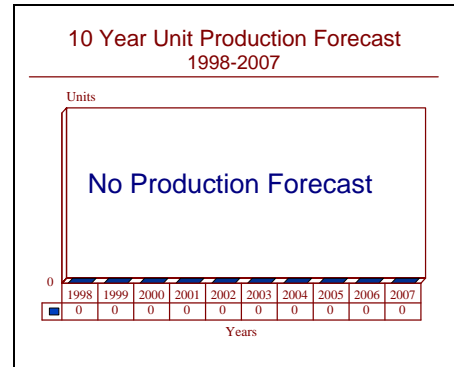
ARCHIVED REPORT

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Dassault Super Etendard - Archived 9/99

Outlook

- French Navy Super Etendard upgrades completed in 1997
- Aircraft to be retired; may be subject of sales/upgrades



Orientation

Description. Aircraft carrier-based, single-engine, single-seat strike fighter.

Sponsor. Delegation Generale Pour l'Armement (DGA).

Contractors. Dassault Aviation (formerly Avions Marcel Dassault-Breguet Aviation), Istres, France.

Status. Operational service/modifications.

Total Produced. A total of 85 Super Etendards were produced.

Application. Anti-shipping, ground attack.

Price Range. In 1980, the cost was approximately \$10.5 million.

Technical Data

(Super Etendard)

Design Features. Cantilever mid-wing monoplane, with 45 degree sweep-back at quarter-chord. Outer third of each wing folds up and back for aircraft-carrier stowage. Two perforated air-brakes side-by-side under

center of fuselage. Tail has horizontal stabilizer at mid-fin. All surfaces are swept and all-moving. Tricycle landing gear, brake-chute in fairing at junction of horizontal stabilizer trailing edges on fin.

Dimensions

Length overall
 Height overall
 Wingspan
 Wing area, gross

Metric

14.31 m
 3.86 m
 9.60 m
 28.4 sq m

US

46.95 ft
 12.75 ft
 31.5 ft
 305.7 sq ft

	<u>Metric</u>	<u>US</u>
Weight		
Empty	6,500 kg	14,330 lb
Fuel weight, max ^(a)	4,800 kg	10,580 lb
Armament weight, max ^(b)	2,100 kg	4,630 lb
Performance		
Max level speed	Approximately Mach 1	
Max low altitude speed	1,180 km/h	637 kts
Service ceiling	13,700 m	45,000 ft
Range ^(c)	850 km	460 nm

Armament

Two DEFA 30 mm cannon, 125 rounds each, four under-wing and one under-fuselage hardpoints for 250-kilogram (551-pound) or 400 (882- pound) bombs, two Matra Magic 550 air-to-air missiles, two AS39 Exocet missiles, AN52 nuclear bomb, ASMP nuclear missile, rocket pods (four max, 18 rounds/68 mm each), ECM pods, and/or a flare/chaff dispenser.

Propulsion

(Super Etendard) (1) SNECMA Atar 8K-50 non-augmented turbojet, rated 49 kN (11,025 lbst).

^(a)with two 1,100 liter (290.6-gallon) drop tanks

^(b)with internal fuel only

^(c)hi-lo-hi profile, with one AM39 missile and two drop tanks

Variants/Upgrades

There have been no variants or major structural upgrades of the Super Etendard to date.

Program Review

Background. The Dassault Super Etendard was developed in response to a French Navy requirement for a carrier-based Etendard replacement to serve in the maritime attack role. The French Navy first identified a requirement for an aircraft to replace the Etendard in the early 1960s and made a preliminary selection of a maritime version of the SEPECAT Jaguar in 1965. Because of its excessive weight and potential problems with wave-off and bolter situations, the Jaguar M was canceled and other designs were considered. Among these was an improved version of the Etendard IV called the Super Etendard. The first of three converted Etendard IVs was flown as a Super Etendard prototype in October 1974. Changes to the Etendard IV include the addition of the SNECMA Atar 8K-50 turbojet engine, Thomson-CSF/Electronique Serge-Dassault Agave search/track/designation/telemetry/navigation radar and the Sagem-Kearfott ETNA inertial nav/attack system. Deliveries began in June 1978 and were completed by early 1983. The Super Etendard was modified to carry the ASMP nuclear missile under the 1984-1988 defense program.

Attack Avionics Upgrade. To ensure that the Super Etendard will remain a potent surface-attack/low-level penetration aircraft through the 1990s and until its replacement by the Rafale, the French Navy is having the aircraft's radar and mission computer replaced, and a new HUD and cockpit systems displays installed.

The new radar is the Electronique Serge-Dassault (ESD) Anemone. Interchangeable with the earlier Agave, the Anemone is capable of track-while-scan target monitoring, air-to-surface ranging, ground mapping, and search modes. The new computer system is produced by Sagem, and has a higher processing speed than the original nav/attack computer. Program officials say the aircraft will be able to launch laser guided weapons. Dassault delivered the first upgraded aircraft to the French Navy in late 1991, and the French Navy upgraded the remainder by late 1997. Approximately 56 Super Etendards were upgraded.

Defensive Systems Upgrade. In mid-1993 Thomson-CSF was contracted to provide an integrated EW suite for French Navy Super Etendards. This system consists of the lightweight Sherlock warning receiver, Barem

jammer, and Alkan 5081 pod-mounted decoy launcher. attack avionics modifications noted above.
 These upgrades are being carried out in parallel to the

Funding

The upgrade program for Super Etendard was funded under the 1984-1988 French defense plan.

Recent Contracts

None reported.

Timetable

<u>Month</u>	<u>Year</u>	<u>Major Development</u>
	1960s	Development begun
Nov	1972	Program temporarily shelved
Feb	1973	Selected by French Navy
Aug	1973	Production contract signed
Oct	1974	First prototype flight
Nov	1977	First production aircraft flight
Jun	1978	Production deliveries begun
Sep	1979	Argentine order placed for 14 aircraft
	1983	Deliveries completed
	1989	Nav/Attack upgrade begun

Worldwide Distribution

<u>Europe</u>	France	32	Super Etendard
<u>South America</u>	Argentina	12	Super Etendard

Forecast Rationale

The French upgrade program was completed in 1997. unsuccessful attempts to place existing used Super
 As these aircraft are retired they may be the subjects of Etendards, the re-sale of ex-French Navy aircraft does
 upgrades should Dassault find a buyer for them. not appear likely.
 However, in light of the French manufacturer's

Ten-Year Outlook

No further production is forecast.

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