



## South Australian Aviation Museum *Aircraft Profile*

### GENERAL DYNAMICS F-111C A8-132 (D1-8)

*Multi crew strike bomber*



No, you are not seeing double! On Saturday 18<sup>th</sup> May 2019, aviation enthusiasts got a rare treat. F111's A8-134 & A8-132 were side by side in SAAM's rear paddock for an aircraft swap. SAAM had been displaying A8-134 for some time in Hangar 1 but the Australian War Memorial in Canberra had asked for this plane to use in a future display. SAAM was offered A8-132 as a replacement. A8-132 was an ARDU plane and had been flown out of Edinburgh Base, so it ticked every box for us as an aircraft with South Australian credentials. It didn't hurt that it had been used for a number of weapons development trials as well. A good day was had by all.



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### **History of A8-132 (D1-8)**

A8-132 was the eighth F-111 from the production line allocated to the RAAF and made its first flight on 21 October 1968. It was delivered to RAAF Amberley on 25 July 1973 following a period in storage in the United States due to concerns about the type's serviceability. After service with 1 SQN it was allocated to the Aircraft Research and Development Unit (ARDU) at Edinburgh in 1979 and remained there until 1988.

Its primary role at ARDU was testing and clearance of new systems and weapons for service use, completing over 30 trials programs including a range of guided and unguided weapons including the Harpoon missile. During this period it was given a special paint scheme of camouflaged upper surfaces and white lower surfaces to provide contrast in images of weapons release during trials – this scheme has been re-applied for display at SAAM.



In 1998, A8-132 returned to service with 1 SQN as a strike fighter but was subsequently returned to its trials role when it served as a prototype for a major avionics upgrade programme (AUP) in 1992 and also for an engine replacement programme following the purchase by the RAAF of upgraded engine stocks following the retirement of the F-111 from USAF service.



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Following these major projects, the aircraft was returned to squadron service with 1 SQN in 1996, and participated in a number of major exercises and airshows both within Australia and overseas. A8-132 was retired with all remaining RAAF F-111s at the end of 2010. In 2011 it was returned to its ARDU colour scheme and transported to RAAF Edinburgh for display.

A8-132 was exchanged for SAAM's original RF-111C A8-134 which has been transferred to the Australian War Memorial. With its history of testing and clearance all F-111 related weapons and systems at ARDU and also being the prototype aircraft for the avionics upgrade and engine upgrade, A8-132 is one of the most significant of all RAAF F-111s.

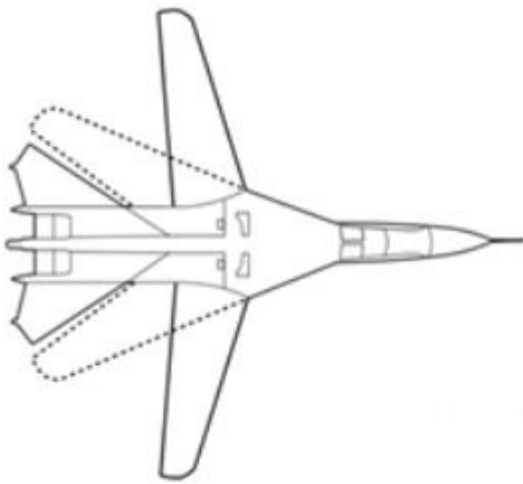




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### **GENERAL DYNAMICS F-111 – WHAT MAKES IT UNIQUE?**

The F-111 is famous for its variable sweep wings. For take-off, landing and slow speed flight the wings are outstretched at a sweep angle of  $16^\circ$  at the leading edge. For high-speed flight the wings are swept back at  $72.5^\circ$ . The aircraft could be flown with the wings set at any intermediate angle.



The F-111 was fitted with terrain-following radar. This system guided the aircraft's autopilot to keep a constant height above the ground or water. This enabled the crew to fly at very low altitudes to evade enemy radar or other detection.







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The F-111 was fitted with a crew escape module instead of ejection seats. In an emergency, either crew member would pull the ejection handle and the module would separate from the aircraft and descend to earth by parachute. The module consisted of the entire cockpit section, canopy and the forward part of the fuselage/wing fairing. This module concept was a major design innovation for the 1960s.



**GENERAL DYNAMICS**

### Technical Specifications

**Engines:** 2 x P&W TF30-P-109RA turbofans

**Maximum take-off weight:** 51,955 kg (114,300 lb)

**Length:** 23.5 m

**Wingspan:** Spread: 21.3 m Swept: 10.4 m

**Height:** 5.22 m

**Maximum speed:** Mach 2.5 (1,475 kt; 2,655 kph) at high altitude

**Combat radius:** 1,160 nm (2,140 km)

**Ferry range:** 3,000 nm (5,560 km)

**Crew:** 2 – pilot and navigator/weapons system operator