

**Aviation Safety Investigation Report  
199703644**

**Howard Hughes Engineering Pty Ltd  
Lightwing  
General Dynamics Corporation  
F111**

**05 November 1997**

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**NOTE: All air safety occurrences reported to the ATSB are categorised and recorded. For a detailed explanation on Category definitions please refer to the ATSB website at [www.atsb.gov.au](http://www.atsb.gov.au).**

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**Occurrence Number:** 199703644                      **Occurrence Type:** Incident  
**Location:** Ballina, Aerodrome  
**State:** NSW    **Inv Category:** 4  
**Date:** Wednesday 05 November 1997  
**Time:** 1305 hours                                      **Time Zone**                      ESuT  
**Highest Injury Level:** None

**Aircraft Manufacturer:** General Dynamics Corporation  
**Aircraft Model:** F-111  
**Aircraft Registration:**    **Serial Number:**  
**Type of Operation:** Non-commercial Other (including military)  
**Damage to Aircraft:** Nil  
**Departure Point:** Amberley Qld  
**Departure Time:**  
**Destination:** Amberley Qld

**Aircraft Manufacturer:** Howard Hughes Engineering Pty Ltd  
**Aircraft Model:** GA-55 LIGHTWING I  
**Aircraft Registration:** Q827    **Serial Number:**  
**Type of Operation:** Non-commercial Pleasure/Travel  
**Damage to Aircraft:** Nil  
**Departure Point:** Ballina NSW  
**Departure Time:**  
**Destination:** Ballina NSW

**Approved for Release:** Saturday, July 11, 1998

## FACTUAL INFORMATION

A training flight had been planned for a Royal Australian Air Force (RAAF) General Dynamics F111 from Amberley to Amberley, incorporating a flypast of the Southern Cross school at Ballina East. The flypast was to consist of two overflights of the school. A notice to airman (NOTAM) for the low-level jet route of the F111 had been issued by the RAAF. The NOTAM did not indicate that the F111 would be operating in the area of the school. The route of the F111 to Ballina East was from a position 27 NM west-south-west of Ballina airport to over the airport at 1,500 ft above mean sea level and thence to Coolangatta on climb to 5,000 ft. The weather forecast for the flight indicated that there might be low cloud and showers in the Ballina area.

The crew of the F111 encountered low cloud and reduced visibility west of Ballina airport and descended to 1,000 ft above ground level. The crew made two traffic advisory radio broadcasts to notify aircraft in the Casino/Lismore/Ballina mandatory broadcast zone (MBZ) on the very high frequency (VHF) radio in accordance with Aeronautical Information Publication (AIP) procedures. The crew made a further transmission to notify personnel at the school of the F111's estimate over the school. This transmission was also made on the MBZ frequency.

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The last two advisory transmissions made by the F111 crew on the MBZ frequency were heard by the crew of a Boeing 737 on the ground at Ballina airport. This crew also saw a Hughes Lightwing ultralight aircraft conducting circuit training on runway 24 at Ballina, although they did not hear the pilot make or acknowledge any radio broadcasts. The pilot of the Lightwing reported that he had made a taxi broadcast prior to conducting the circuit training. The AIP did not require the pilot to make other radio transmissions.

Approximately 3 NM west of Ballina airport, the crew of the F111 encountered visual meteorological conditions (VMC) and tracked for the school. As the F111 passed south of Ballina airport abeam the western end of runway 24, the pilot in command saw the Lightwing to the left of his aircraft. The Lightwing was turning left and was at the same altitude. Reports indicate that the lateral distance between the aircraft was somewhere between 300 m and 1000 m. Subsequently, the F111 crew contacted the pilot of the Lightwing and established that it had been at the same level. Both aircraft crew were unaware of the other aircraft prior to the visual sighting.

## ANALYSIS

It was not determined why the other aircraft did not hear the taxi broadcast by the pilot of the Lightwing.

Line of sight very high frequency transmissions may have been adversely affected by terrain shielding due to the low altitude of the F111 as it tracked to Ballina. However, the Lightwing pilot was not required to make regular calls on the MBZ frequency while conducting the training. Because they had not heard transmissions from each other, the pilots of the F111 and the Lightwing were not aware of the other aircraft operating in the MBZ.

