Australian Government
Australian Transport Safety Bureau

ATSB TRANSPORT SAFETY INVESTIGATION REPORT
Aviation Occurrence Report – 200601053
Final

Engine In-Flight Shutdown – 40km NW Callion, WA
27 February 2006
VH-LBA
Cessna Aircraft Company 441 - Conquest

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Cessna Aircraft Company 441

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Engine In-flight Shutdown

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Figure 1 provided by the operator.

Abstract

On 27 February 2006, at approximately 1427 Western Standard Time, the Cessna Aircraft Company 441 aircraft, registered VH-LBA, was being operated on a charter flight with two pilots and seven passengers from Perth to Mount Weld, WA. During cruise, at Flight Level (FL) 250, the left engine shut down. The crew actioned the 'engine securing phase one checks' from the quick reference handbook and declared a PAN. They then requested and received a clearance to descend to FL200. The crew then actioned the engine restart procedures, successfully restarting the left engine. Air Traffic Control was notified of normal operations and the flight continued to Mount Weld.

Following the occurrence, the flight crew reported that, prior to the engine shutdown, the pilot in command (PIC) had inadvertently depressed the left engine STOP button.

THE AUSTRALIAN TRANSPORT SAFETY BUREAU

The Australian Transport Safety Bureau (ATSB) is an operationally independent multi-modal Bureau within the Australian Government Department of Transport and Regional Services. ATSB investigations are independent of regulatory, operator or other external bodies.

The ATSB is responsible for investigating accidents and other transport safety matters involving civil aviation, marine and rail operations in Australia that fall within Commonwealth jurisdiction, as well as participating in overseas investigations involving Australian registered aircraft and ships. A primary concern is the safety of commercial transport, with particular regard to fare-paying passenger operations. Accordingly, the ATSB also conducts investigations and studies of the transport system to identify underlying factors and trends that have the potential to adversely affect safety.

The ATSB performs its functions in accordance with the provisions of the *Transport Safety Investigation Act 2003* and, where applicable, relevant international agreements. The object of a safety investigation is to determine the circumstances in order to prevent other similar events. The results of these determinations form the basis for safety action, including recommendations where necessary. As with equivalent overseas organisations, the ATSB has no power to implement its recommendations.

It is not the object of an investigation to determine blame or liability. However, it should be recognised that an investigation report must include factual material of sufficient weight to support the analysis and findings. That material will at times contain information reflecting on the performance of individuals and organisations, and how their actions may have contributed to the outcomes of the matter under investigation. At all times the ATSB endeavours to balance the use of material that could imply adverse comment with the need to properly explain what happened, and why, in a fair and unbiased manner.

Central to the ATSB's investigation of transport safety matters is the early identification of safety issues in the transport environment. While the Bureau issues recommendations to regulatory authorities, industry, or other agencies in order to address safety issues, its preference is for organisations to make safety enhancements during the course of an investigation. The Bureau prefers to report positive safety action in its final reports rather than making formal recommendations. Recommendations may be issued in conjunction with ATSB reports or independently. A safety issue may lead to a number of similar recommendations, each issued to a different agency.

The ATSB does not have the resources to carry out a full cost-benefit analysis of each safety recommendation. The cost of a recommendation must be balanced against its benefits to safety, and transport safety involves the whole community. Such analysis is a matter for the body to which the recommendation is addressed (for example, the relevant regulatory authority in aviation, marine or rail in consultation with the industry).

FACTUAL INFORMATION

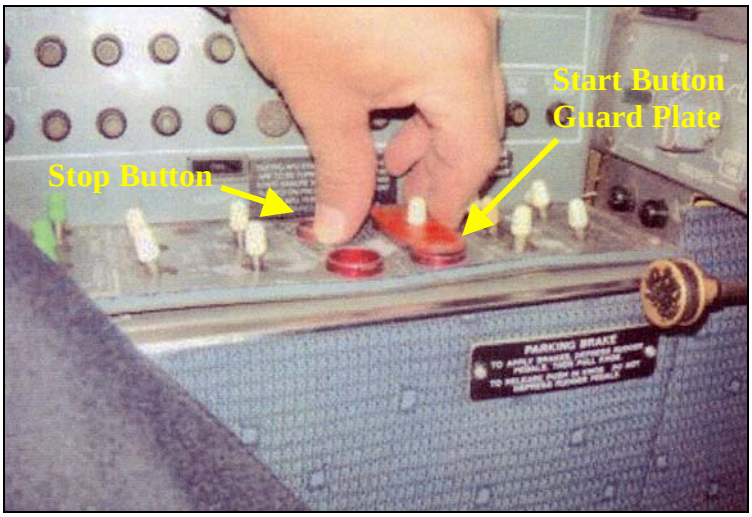
The report presented below was prepared principally from information supplied to the Bureau.

History of the flight

On 27 February 2006, at approximately 1427 Western Standard Time, the Cessna Aircraft Company 441 aircraft, registered VH-LBA, was being operated on a charter flight with two pilots and seven passengers from Perth to Mount Weld, WA. During cruise, at Flight Level (FL) 250, the left engine shut down. The crew actioned the 'engine securing phase one checks' from the quick reference handbook and declared a PAN[1]. They then requested and received a clearance to descend to FL200. The crew then actioned the engine restart procedures, successfully restarting the left engine. Air Traffic Control was notified of normal operations and the flight continued to Mount Weld.

Following the occurrence, the flight crew reported that, prior to the engine shutdown, the pilot in command (PIC) had inadvertently depressed the left engine STOP button. Prior to the event, the flight crew were discussing the use of the Start Button Guard Plate which was in place over the engine START buttons. In the course of explaining to the second pilot the use of the Start Button Guard Plate, the PIC inadvertently depressed the left engine STOP button (Figure 1).

Figure 1: Start Button Guard Plate[2]



1 Radio code indicating uncertainty or alert.

2 Photograph courtesy of the aircraft operator.

Safety Action

Following the occurrence, the operator informed the Australian Transport Safety Bureau that they had undertaken the following safety actions:

> A review was completed to assess the potential for this type of event to occur with specific attention to the effectiveness of the Start Button Guard Plate.
>
> Awareness of the event was provided to all flight crews by way of a company safety advisory supplement.
>
> The aircraft operations manual is being revised to include the correct usage and procedures related to the ‘Start Button Guard Plate’.