

Addendum to Australia's Aviation State Safety Program

February 2014

Introduction

Australia released its first Aviation State Safety Program (SSP) in February 2011 and a second edition in April 2012.¹ These documents set out how aviation safety is managed in Australia, with a focus on safety systems.

Since the release of the second edition of Australia's SSP, more recent aviation safety statistics have become available. This addendum provides supplementary information and is to be read in conjunction with the existing SSP.

Australia's aviation safety performance

This section provides an update of Australia's aviation safety performance with respect to civil aviation operations. It reports the latest statistics on air traffic accidents as collated by the Australian Transport Safety Bureau (ATSB) for the period 2002 to 2011. The figures below extend and replace the figures in the section with the same heading in Chapter 1 of the second edition of Australia's SSP.

The ATSB collects a range of aviation safety information to assess safety performance and trends, and to highlight areas of emerging risk. Along with aviation activity data compiled by Australia's Bureau of Infrastructure, Transport and Regional Economics (BITRE), the ATSB regularly publishes aviation accident rates in Australia.²

Australia adopts ICAO's definition of an aviation accident, which includes when:

- a person is seriously or fatally injured; or
- an aircraft sustains damage or structural failure (except for engine failure or damage); or
- an aircraft is missing or completely inaccessible;

as a result of the operation of an aircraft from the point of embarkation to disembarkation.

Commercial air transport

Commercial air transport refers to scheduled and nonscheduled commercial operations used for the purposes of transporting passengers and/or cargo for hire or reward. Specifically, this includes

- high capacity regular public transport or RPT (maximum aircraft capacity exceeding 38 seats or a maximum payload exceeding 4,200 kg);
- low capacity RPT (38 seats or less, or a maximum payload of 4,200 kg or less); and
- non-scheduled charter flights.

Figures 1 to 3 below show the total accident and fatal accident rates per million aircraft departures for commercial air transport operations in Australia from 2002 to 2011. Figure 1 shows that the total number of accidents involving high capacity RPT has remained below 7 per million departures since 2002, with no recorded fatalities during the period. Figure 2 shows for low capacity RPT, the total accident trend has

¹ Australia's State Aviation Safety Program, April 2012
(<http://www.infrastructure.gov.au/aviation/safety/ssp/index.aspx>).

² ATSB annual publications of *Aviation Occurrence Statistics*
(<http://www.atsb.gov.au/publications/2013/ar-2013-067.aspx>).

declined since 2002, with no reported accidents in 2011. There were two fatal accidents for low capacity RPT over the period: one in 2005, a passenger service which impacted terrain resulting in the death of 13 passengers; and one in 2010, a training flight which crashed during an engine-out training procedure, fatally injuring two pilots.

Charter flights represent the highest accident rate for commercial air operations. The rate of charter accidents has varied between 13 and 42 per million departures over the 10 year period. The fatal accident rate remains below 7 per million departures, with two fatal accidents occurring in 2011.

Figure 1: Aviation Accident Rate for High Capacity RPT (2002-2011)

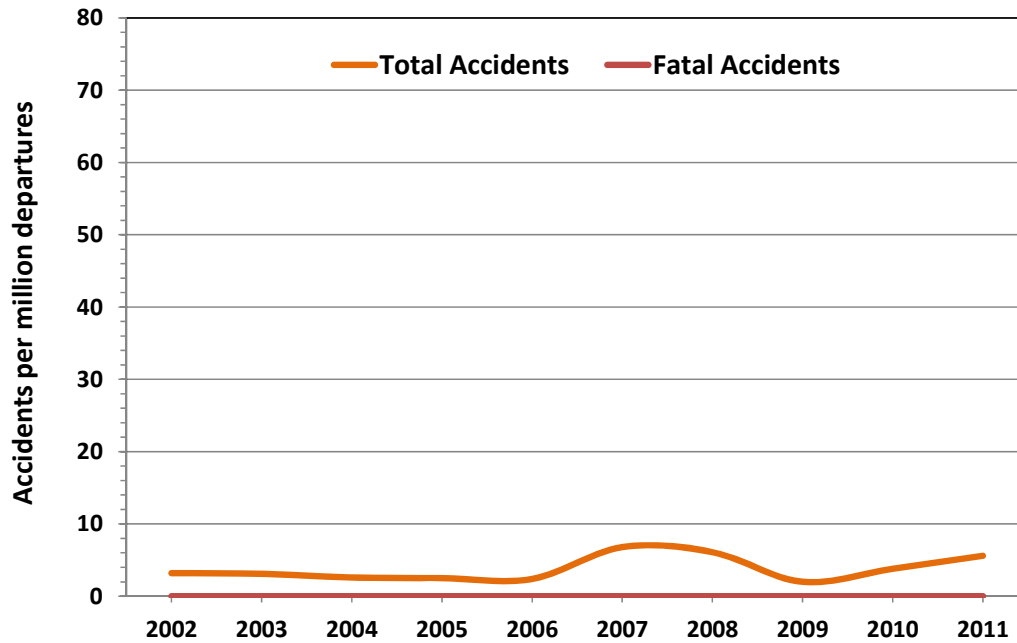


Figure 2: Aviation Accident Rate for Low Capacity RPT (2002-2011)

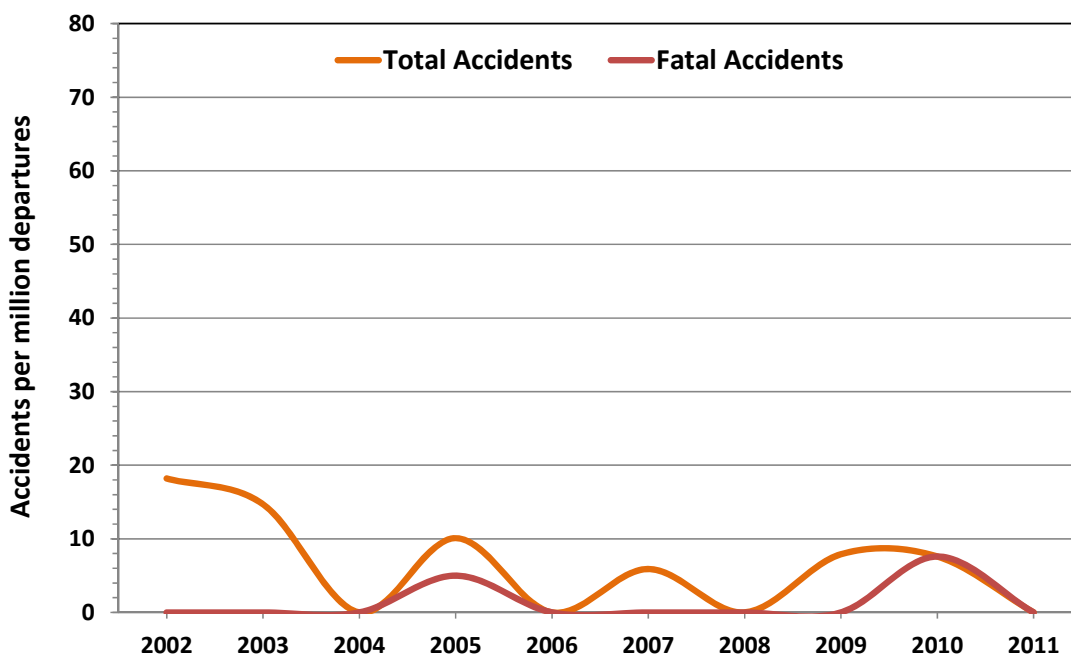
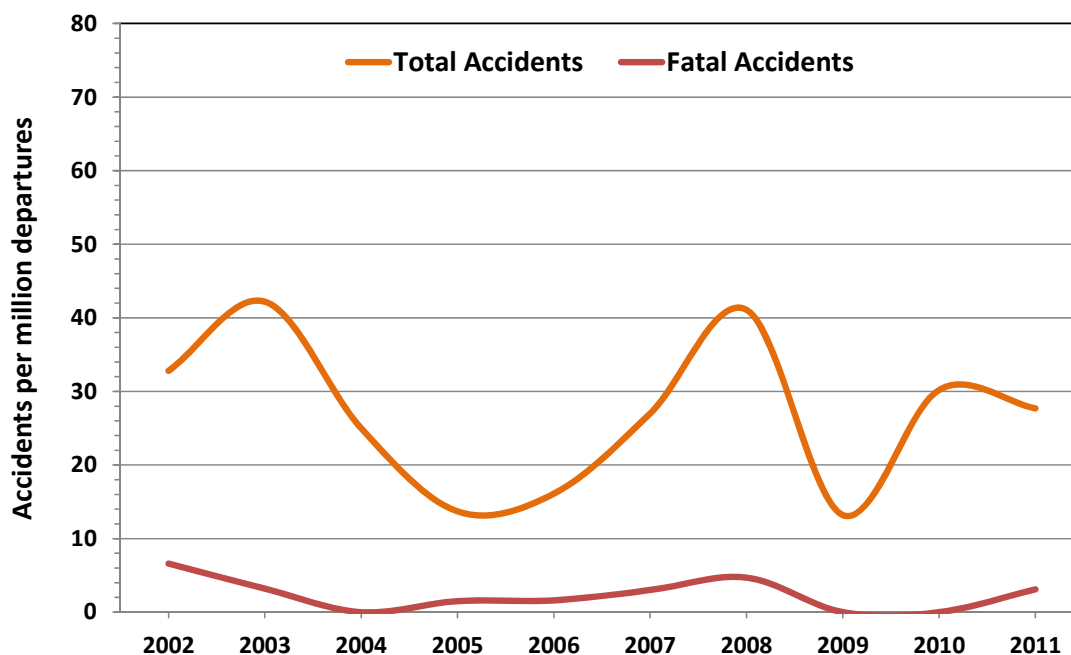


Figure 3: Aviation Accident Rate for Charter (2002-2011)



General Aviation

General aviation can be broken down into aerial work (e.g. medical services, agriculture, mustering, search and rescue, fire control, survey and photography), flying training, private/business and sports aviation. It excludes recreational aircraft that do not have an Australian civil (VH-) registration (e.g. light sport aircraft below 600kg, hang gliders, trikes, gyrocopters and powered parachutes).

Figures 4 to 6 below show the total accident and fatal accident rates per million hours flown from 2002 to 2011 for three main general aviation activities in Australia: aerial work, flying training and private/business operations respectively. Accident rate statistics are not available for sports aviation as the number of hours flown for this activity is not comprehensively known.

Over the decade, there has been a declining trend in the total accident rate for flying training, a drop in accidents for private/business operations from 2005 followed by a further decline in 2011, but aerial work has been relative stable in the past 5 years. The private/business category had the highest total accident rate for general aviation, while flying training for the most part had the lowest accident rate.

There have been significant increases in the fatal accident rate for aerial work (almost a 5-fold increase) and private/business flights (just over double the rate) in 2011 compared to 2002, although private/business has declined since a peak in 2006. Figure 6 shows that private/business operations have the highest fatal accident rate, suffering approximately 20.8 fatal accidents per million hours flown in 2011. This rate is almost twice the rate for aerial work and eight times the rate for flying training for that year.

The ATSB has reported that the average fatal accident rate for all general aviation activity in Australia was 12.5 per million hours flown in 2011. This is comparable to the average general aviation fatal accident rate in the United States which was 12.4 per million hours flown in 2011.³

³ US National Transportation Safety Board Aviation Accident Data (Table 10 in http://www.nts.gov/data/aviation_stats.html).

Figure 4: Aviation Accident Rate for Aerial Work (2002-2011)

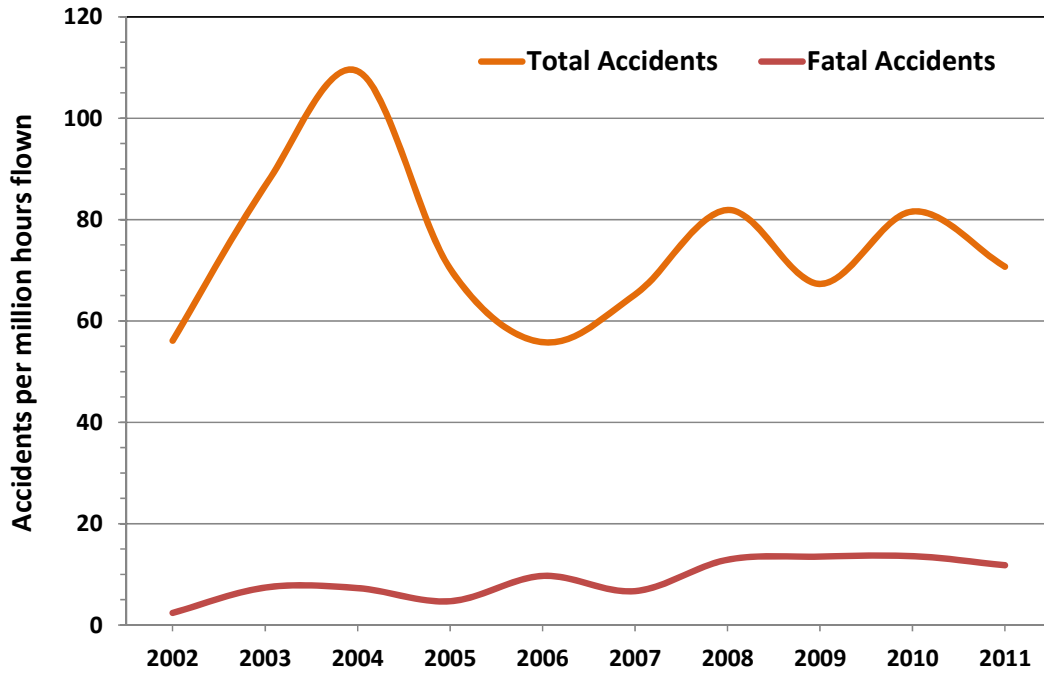


Figure 5: Aviation Accident Rate for Flying Training (2002-2011)

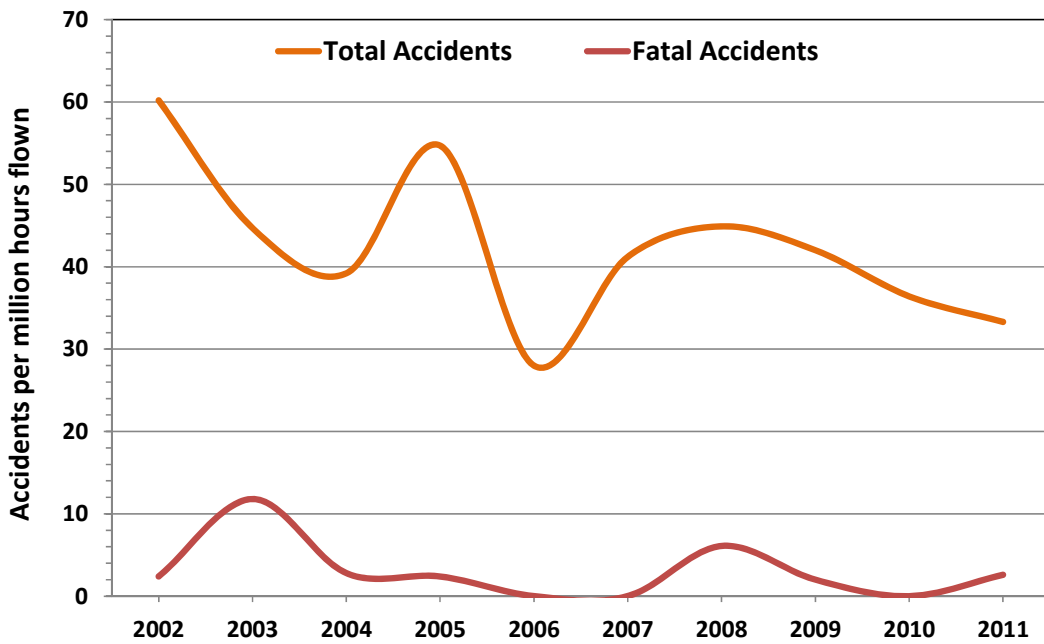


Figure 6: Aviation Accident Rate for Private/Business Flights (2002-2011)

