

# Disparate Measures

**Continuing a long-term trend, charter operations had higher accident, fatal accident and fatality rates than scheduled flights in Australia.**

BY RICK DARBY

The Australian fatal accident rate for chartered flights increased in 2007 from the previous three years and continues at a higher rate than for scheduled operations, the Australian Transport Safety Bureau (ATSB) reported.<sup>1</sup> The rate for all air transport accidents increased year-over-year (Figure 1). All rates were calculated per 100,000 flight hours.

Australian scheduled aviation — called regular public transport — is subdivided into high capacity and low capacity.<sup>2</sup> The high capacity accident rate in 2007 was 0.30, a 43 percent increase from the rate of 0.21 in 2006 (Table 1, p. 50). The 2007 rate was, however, 13 percent

lower than the average of 0.34 in the previous nine years.

The 2007 low capacity accident rate, at 0.63, compared with zero in 2006. The 2007 rate was still lower than the average for the previous nine years, which was 0.94.

Throughout the study period, the accident rate for charter operations ranged from about four to 60 times higher than for high-capacity regular public transport. The disparity also fell into that range in 2007, with an accident rate of 2.94 and a fatal accident rate of 0.37.

The accident rate for charters, although 40 percent higher than the previous year's, was 38 percent lower than the 1998–2006 average of

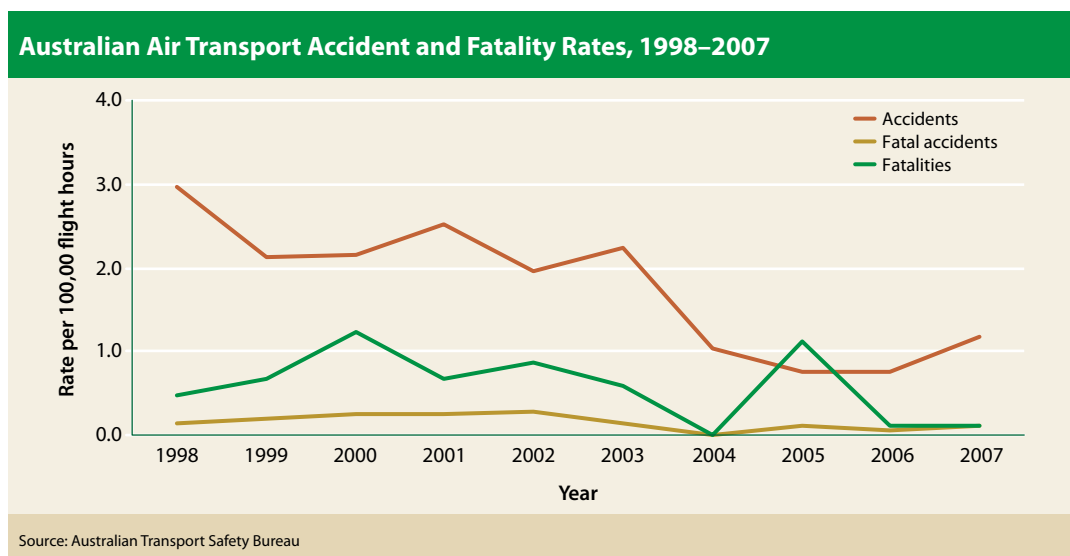


Figure 1

4.78. The fatal accident rate, a 76 percent jump from that of 2006, was 23 percent down from the previous nine-year average of 0.48.

In total, the 2007 air transport accident rate of 1.16 was the highest since 2003 but lower than in any of the first six years in the study period. The fatal accident rate, double the rate for 2006, was 25 percent lower than the 1998–2006 average of 0.16. The fatality rate held steady at 0.12, with only 2004 having a lower rate during the study period.

After two years in which there were no business aviation accidents, the 2007 rate was 2.57, with a fatal accident rate of 0.64 (Table 2). The accident rate was an improvement on the 1998–2006 average of 2.0, but the fatal accident rate was higher than the nine-year fatal accident rate of 0.42, which notably included six years without any fatal accidents.

For general aviation — which includes aerial work, flight training and private flying in addition to business operations — in 2007, the

**Australian Air Transport Accident and Fatality Rates, by Category, 1998–2007**

Category	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
<b>High capacity</b>										
Accidents	0.14	1.13	0.39	0.38	0.42	0.13	0.11	0.11	0.21	0.30
Fatal accidents	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fatalities	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Low capacity</b>										
Accidents	0.70	1.05	1.05	1.20	1.92	1.52	0.00	1.00	0.00	0.63
Fatal accidents	0.00	0.00	0.35	0.00	0.00	0.00	0.00	0.50	0.00	0.00
Fatalities	0.00	0.00	2.80	0.00	0.00	0.00	0.00	7.53	0.00	0.00
<b>Charter</b>										
Accidents	8.29	4.17	5.68	6.92	4.53	6.33	3.13	1.87	2.10	2.94
Fatal accidents	0.40	0.60	0.63	0.86	0.91	0.47	0.00	0.21	0.21	0.37
Fatalities	1.42	1.98	2.31	2.16	2.72	1.88	0.00	0.62	0.42	0.37
<b>Total</b>										
Accidents	2.96	2.13	2.15	2.52	1.97	2.24	1.03	0.75	0.75	1.16
Fatal accidents	0.13	0.20	0.26	0.26	0.29	0.14	0.00	0.12	0.06	0.12
Fatalities	0.47	0.67	1.24	0.66	0.88	0.58	0.00	1.12	0.12	0.12

Note: Rates are per 100,000 flight hours.

Source: Australian Transport Safety Bureau

**Table 1**

**Australian Business Aviation Accident and Fatality Rates, 1998–2007**

	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Accidents	7.23	3.86	2.16	2.73	0.69	0.00	1.38	0.00	0.00	2.57
Fatal accidents	1.81	1.29	0.00	0.00	0.00	0.00	0.69	0.00	0.00	0.64
Fatalities	3.62	1.29	0.00	0.00	0.00	0.00	4.14	0.00	0.00	1.29

Note: Rates are per 100,000 flight hours.

Source: Australian Transport Safety Bureau

**Table 2**

**Australian Accidents, Serious Incidents and Incidents, 1998–Sept. 30, 2008**

Category	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	Total
Accident	230	196	224	203	164	157	167	133	103	153	131	1,861
Serious incident	1	7	9	9	8	6	20	28	24	40	37	189
Incident	4,991	5,377	5,764	5,491	5,841	4,856	5,129	6,712	7,483	7,780	5,990	65,414
<b>Total</b>	<b>5,222</b>	<b>5,580</b>	<b>5,997</b>	<b>5,703</b>	<b>6,013</b>	<b>5,019</b>	<b>5,316</b>	<b>6,873</b>	<b>7,610</b>	<b>7,973</b>	<b>6,158</b>	<b>67,464</b>

Source: Australian Transport Safety Bureau

**Table 3**

accident rate was up but the fatal accident rate and fatality rate were down (Figure 2).

The numbers of accidents, serious incidents and incidents all increased year-over-year in 2007 (Table 3).<sup>3</sup> The report noted that “the significant increase in incident numbers from 2003 [is] likely to be the combined result of an increase in activity and healthy reporting culture in Australia, supported by the introduction of the Transport Safety Investigation Act 2003 and Transport Safety Investigation Regulations in mid-2003, which better specified a comprehensive range of specified incidents that are required to be reported to the ATSB.”

**Notes**

1. *Aviation Statistics: 1 January 1998 to 30 September 2008*, report AR-2008-057, published November 2008. Available via the Internet at <www.atsb.gov.au/publications/2008/AviationStats.aspx>.
2. *High capacity* involves an aircraft with a maximum capacity of more than 38 seats or a maximum certified

**Australian General Aviation Accident and Fatality Rates, 1998–2007**



**Figure 2**

payload of more than 4,200 kg (9,259 lb). Less than either measurement is considered *low capacity*.

3. An *accident* is defined as an event in which any person suffers death or serious injury, or the aircraft incurs substantial damage or structural failure, or the aircraft is missing or inaccessible. A *serious incident* is defined as an occurrence associated with the operation of an aircraft that affects or could affect the safety of the aircraft or that involves circumstances indicating that an accident nearly occurred. An *incident* is defined as an occurrence, other than an accident or serious incident, associated with the operation of an aircraft that affects or could affect the safety of the aircraft. “In practice, this definition is broadly interpreted and the incident reporting system accepts any reports, requests, complaints and suggestions which relate to aviation safety,” the report said.