

Looking East

For both Eastern-built and Western-built large transport aircraft, accident rates were higher for turboprops than for jets in 1995 through 2004.

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Eastern-built large transport aircraft — manufactured in the Soviet Union or Russian Federation — were involved in 5 percent of the world’s flights, 6 percent of flight hours and 34 percent of fatal accidents during passenger or cargo operations between 1995 and 2004, according to the U.K. Civil Aviation Authority (CAA) Safety Regulation Group.¹

Those aircraft, shown in Table 1, included turboprops and jets, but not business jets.

“Within the Eastern-built subset, 61 percent of flights flown between 1995 and 2004 were performed by Eastern-built jets and 39 percent by Eastern-built turboprops,” the CAA report says. “The breakdown by hours flown between 1995 and 2004 shows that 67 percent were [flown] by Eastern-built jets and 33 percent by Eastern-built turboprops.”

The distribution of turboprops versus jets in fatal accidents was approximately the reverse of that for flights and flight hours during the same time period. Jets were involved in 61 percent of flights but 36 percent of fatal accidents, and turboprops flew 39 percent of flights but were involved in 64 percent of fatal accidents, says the report.²

Figure 1 shows the three-year moving average rates for fatal accidents involving Eastern-built turboprops, jets and all aircraft.³ The average peaked at 9.6 fatal accidents per million flight hours for turboprops. The report

Eastern-Built Aircraft Types			
Jets			
Antonov An-124	Ilyushin Il-62	Tupolev Tu-134	Yakovlev Yak-42
Antonov An-225	Ilyushin Il-76	Tupolev Tu-154	
Antonov An-72	Ilyushin Il-86	Tupolev Tu-204	
Antonov An-74	Ilyushin Il-96	Yakovlev Yak-70	
Turboprops			
Antonov An-12	Antonov An-26	Antonov An-38	Let L-410 Turbolet
Antonov An-140	Antonov An-28	Antonov An-8	Let L-610
Antonov An-22	Antonov An-30	Ilyushin Il-114	SAC Y-8
Antonov An-24	Antonov An-32	Ilyushin Il-18	XAC Y-7

Source: U.K. Civil Aviation Authority

Table 1

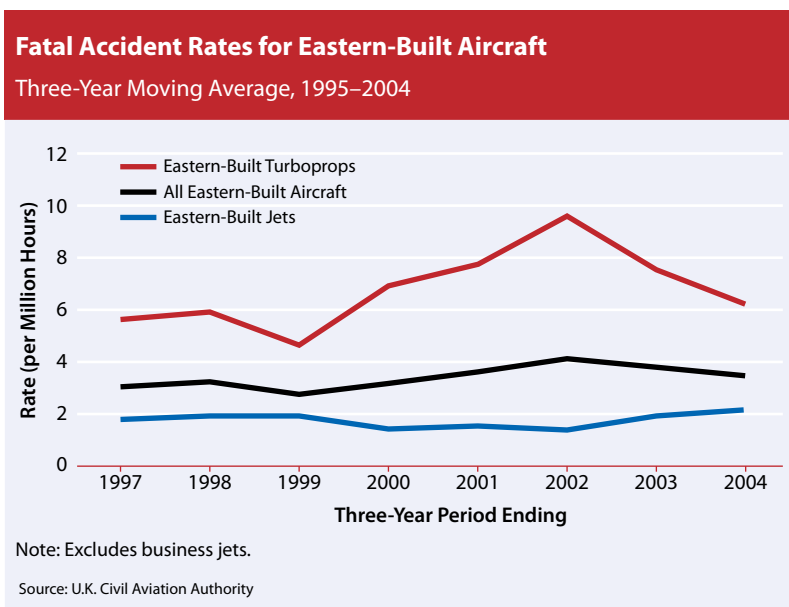


Figure 1

gives a comparable picture for fatal accident rates involving Western-built aircraft, also excluding business jets, during the same period, shown in Figure 2.

“Western-built aircraft (jets and turboprops combined) have generated 95 percent of

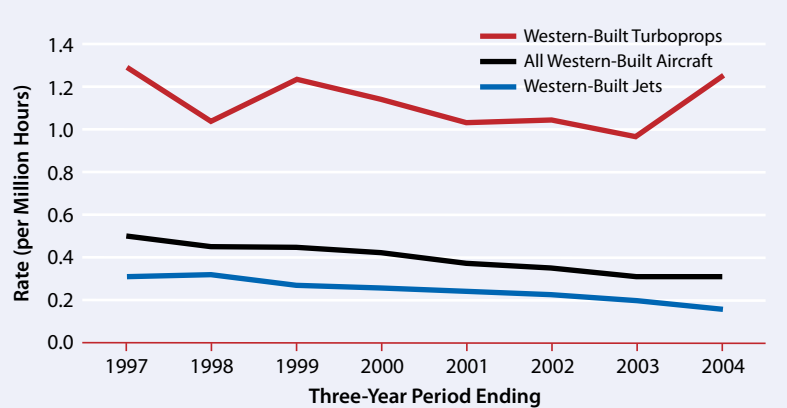
flights flown (and 94 percent of hours flown) by all jets and turboprops, and have been involved in 67 percent of the fatal accidents,” the report says.⁴

As with Eastern-built aircraft, the fatal accident rate was higher for turboprops than for jets. All the three-year moving average rates for Western-built turboprops were lower than those for Eastern-built turboprops throughout the period, however. For Western-built aircraft, 70 percent of flights and 83 percent of flight hours involved jets. Fatal accidents were divided equally between turboprops and jets, says the report.

Fatal accident rates for all jets and turboprops in the same period are shown in Figure 3. The long-term trend for jets shows a decrease, but no long-term trend for turboprops is evident. ●

Fatal Accident Rates for Western-Built Aircraft

Three-Year Moving Average, 1995–2004



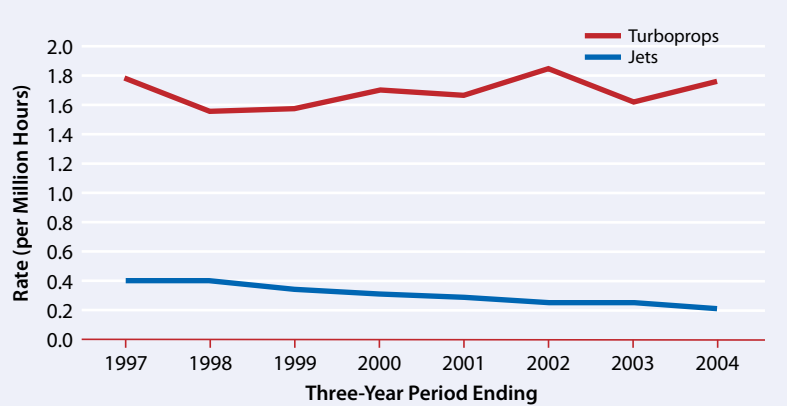
Note: Excludes business jets.

Source: U.K. Civil Aviation Authority

Figure 2

Fatal Accident Rates for Eastern-Built and Western-Built Aircraft

Three-Year Moving Average, 1995–2004



Note: Excludes business jets.

Source: U.K. Civil Aviation Authority

Figure 3

Notes

1. U.K. Civil Aviation Authority (CAA), Safety Regulation Group. *Aviation Safety Review 2005*. CAP 763. Aug. 8, 2006. Available on the Internet at <www.caa.co.uk>.
2. Data originated from Airclaims, supplemented by accident briefs and reports from other sources, and were reviewed by the CAA. Utilization data for Eastern-built aircraft (i.e., flight hours) were estimated to a greater extent than for Western-built aircraft.
3. A moving average is an average that is recomputed periodically in a time series by removing the oldest data and including the most recent data. The effect is to smooth out the data points and make trends more visible.
4. One of the fatal accidents was a midair collision involving an Eastern-built aircraft and a Western-built aircraft. “Midair collisions are normally considered as one accident but, when the accidents are broken down by class of aircraft [e.g., Western-built turboprops], there will be double counting if the individual components are summed back together,” says the report.