

AIRLINE SAFETY & LOSSES

ANNUAL REVIEW

2014



From the point of view of air safety, 2014 was yet another good year.

The year 2014 will probably be remembered for the shocking loss of the two Malaysia Boeing 777s – one missing in the southern Indian Ocean in mysterious circumstances and one shot down – resulting in the deaths of all 537 people on board. However, despite this and the AirAsia crash in the last week of the year, perhaps surprisingly, 2014 was, overall, still a reasonably good year from the point of view of air safety.

However, insurers and war insurers, in particular, did not have a good year, with incurred all-risk losses again exceeding written premiums and war risk underwriters experiencing their worst year ever with losses of more than \$600 million.

Insurance – All-Risk¹

We currently estimate that the cost of incurred airline hull and legal liability losses for 2014 is about \$1,800 million. This is some \$150 million more than the estimated cost of claims in 2013 and very considerably worse than in 2012 when estimated losses of only about \$1,100 million were incurred.

The cost of claims in 2014 easily exceeds the estimated \$1.650 million of premiums written during the calendar year² and is the second year running where claims have exceeded premiums.

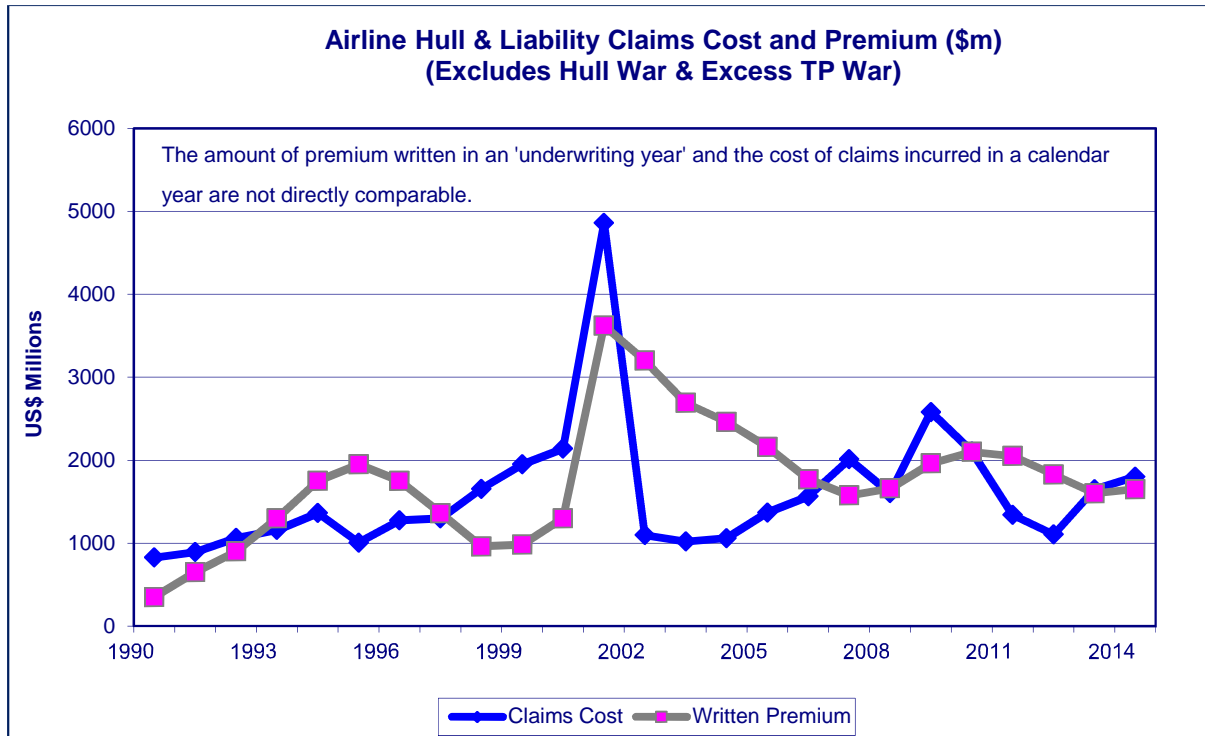
However, despite the expected cost of claims continuing to exceed written premiums, there is little or no sign of the market hardening.

Unless there is a run of significant losses, which might result in a brief hardening of the market and/or a change in external conditions so that there is a withdrawal of capacity from aviation as an insurance class, the current premium level might be considered the new normal.

Airline 'All-Risk' Hull & Liability Claims Costs and Written Premium 2005 – 2014 (US\$ Millions)										
Year	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Written Premium	2,160	1,770	1,575	1,660	1,960	2,100	2,050	1,825	1,600	1,650
Hull Cost	577	662	855	817	854	1,251	727	460	776	428
Liability Cost	391	477	706	336	1,251	355	88	95	297	714 + ?
Minor Liability	400	425	450	450	475	500	525	550	575	600
Total Cost	1,368	1,564	2,011	1,603	2,580	2,106	1,340	1,105	1,648	1,800?

¹ At the time of writing it is not known whether the disappearance of first Malaysia Boeing 777, MH370, will end up as a war loss. Currently, for the sake of these statistics, we are treating it as an accident. However, we understand that the hull claim is being met, 50/50 by all-risk and war-risk markets and this is reflected in our cost of hull claims numbers.

² The amount of premium written in an "underwriting year" and the cost of claims incurred in a calendar year are not directly comparable since, nowadays, the inception of the majority of airline policies occurs during the last quarter of the year with a large number being renewing during December. Therefore most of the premiums written in 2014 will not be earned until 2015 and, similarly, most of the 2014 losses will have fallen on 2013 policies.



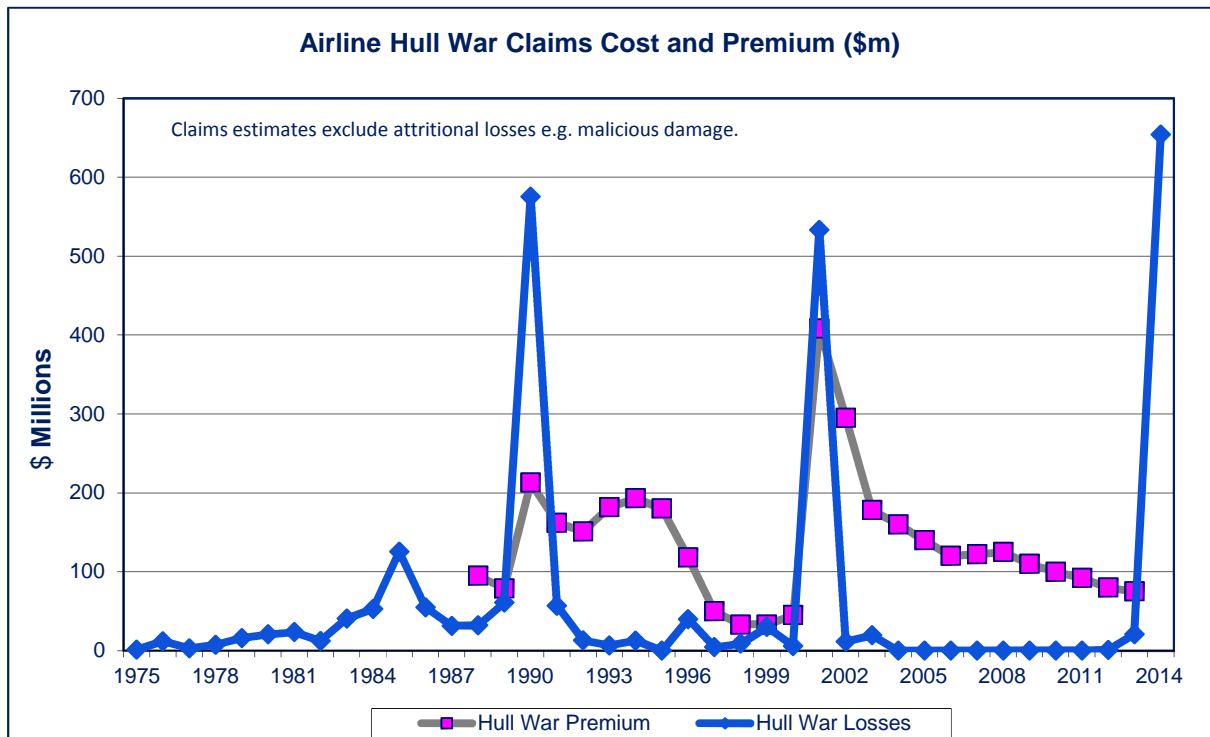
Insurance – War-Risk

The cost of airline hull war losses in 2014 is currently estimated at about \$650 million, the highest figure ever recorded for this class.

Virtually all of these losses fall on 2013 policies as Iraq Airways, Malaysia Airlines, Libyan Airlines/Afriqiyah and PIA’s insurance policies were all renewed in November or December 2013. The estimated global net written airline hull war premium for 2013 was just \$75 million, meaning that claims exceed the premium by about 800%.

Previous “bad” years were 2001 with hull war losses totaling \$533 million – most of this resulting from the terrorist attack on Colombo airport in July that year with, perhaps surprisingly, only \$135 million coming from the 9/11 attacks – and 1990 with losses of about \$575 million – mainly arising from the Iraq invasion of Kuwait with losses of aircraft and spares by Kuwait Airways. Losses arising from the Libyan civil war in 2011 are believed to have been minimal as Libyan Airlines/Afriqiyah’s hull war policy is understood to have been cancelled well before a number of their aircraft were damaged or destroyed in the fighting at Tripoli airport towards the end of August that year.

Main Airline Hull War Loss Events in 2014		
Date	Location	Event
January	Baghdad, Iraq	Iraq Airways. Terrorist attack on airport.
March	In-flight after take-off from Kuala Lumpur, Malaysia	Malaysia Airlines, 50% of hull loss. Disappearance due to alleged unlawful interference.
June	Karachi, Pakistan	PIA, Shaheen Air International, Air Indus, Vision Air. Terrorist attack on airport.
July	Tripoli, Libya	Libyan Airlines/Afriqyah, Air Libya, Buraq Air. Faction fighting at airport.
July	Ukraine	Malaysia Airlines. Shoot down.

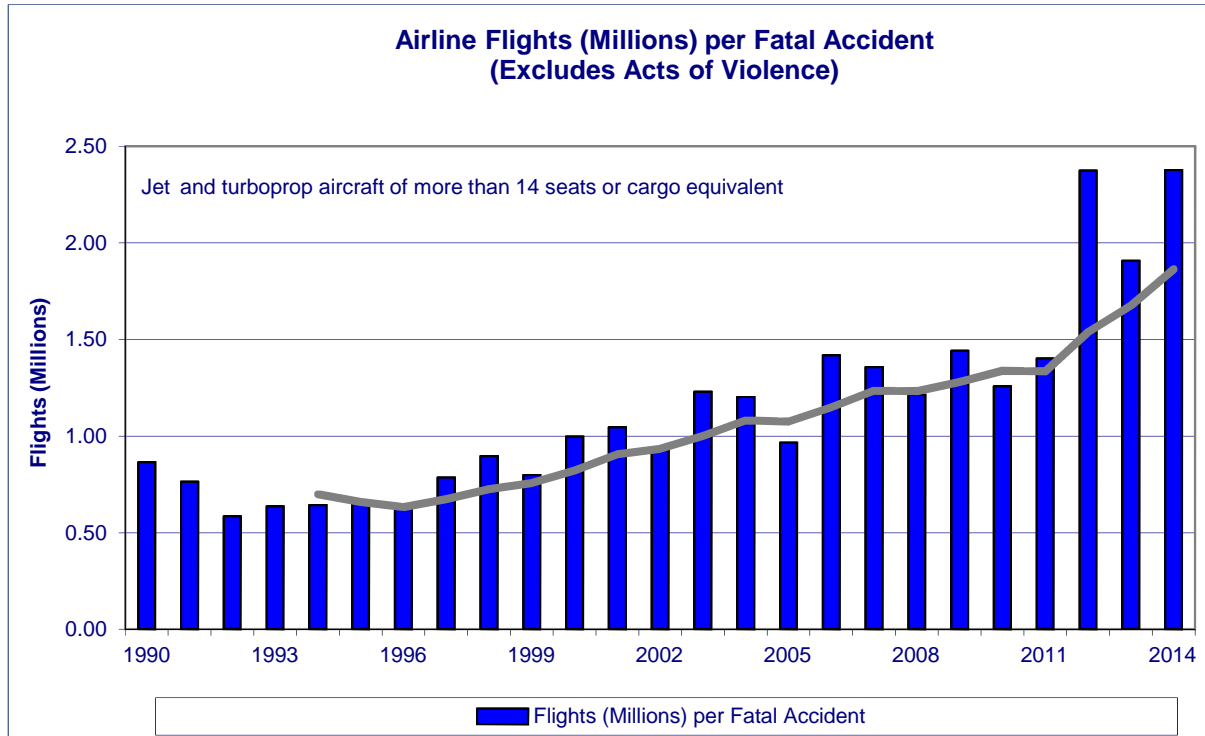


Accidents (Airline Operations)

The year 2014, perhaps surprisingly given the way the two Malaysia Boeing 777 losses and the crash of the AirAsia Airbus A320 may have coloured our perception, was, in fact, still a good one for safety, with a global fatal accident rate of one per 2.38 million flights. On this limited basis, 2014 was, narrowly, the safest year ever; the exact opposite to the claims by some media agencies that it would be “the worst year ever” for air safety. The previous “best year” was 2012 with a fatal accident rate of one per 2.37 million flights.

The fatal accident rate for 2013 was one per 1.91 million flights, for 2012 one per 2.37 million, for 2011 one per 1.4 million and for 2010 one per 1.26 million. The average for the last five years is now about one per 1.75 million flights.

Although some years have been better than others, the fatal accident rate has been improving for many years. At the start of the 1990s, the rate was about one per 0.6 or 0.7 million flights. Therefore, based on this metric, airline operations are now some three times safer than they were 20 years ago.



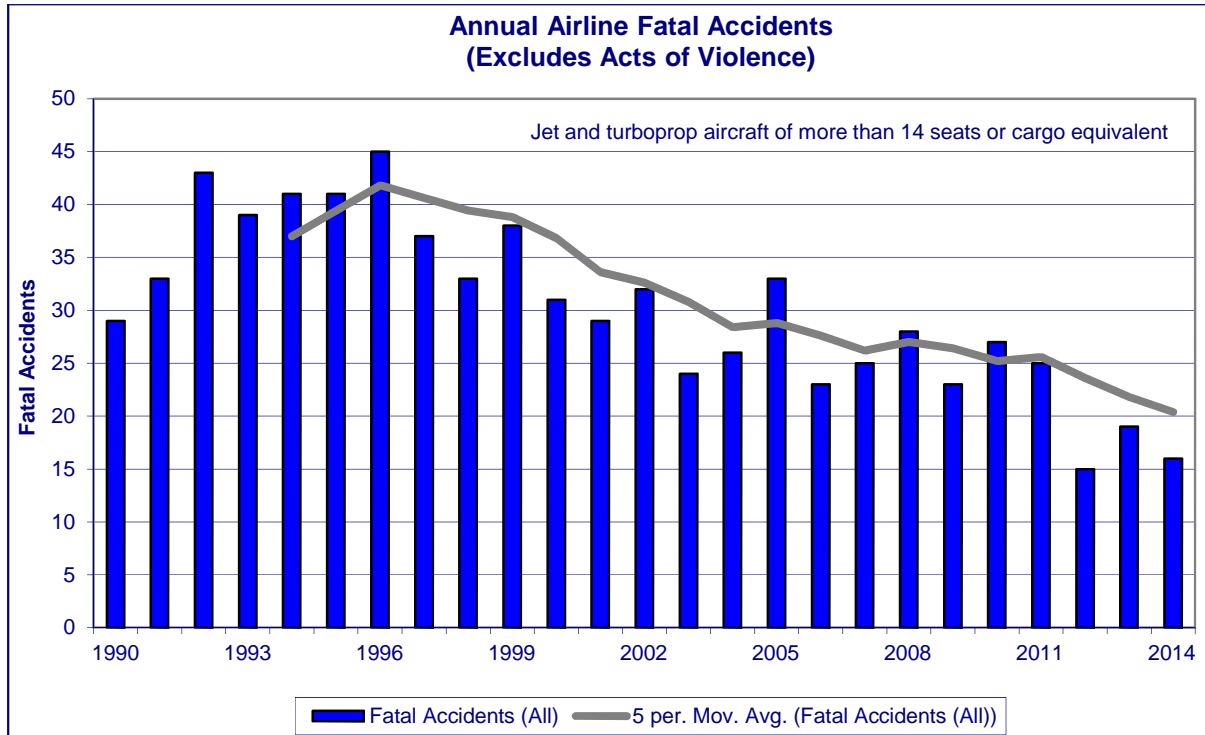
The number of fatal accidents decreased in 2014, going from 19 in 2013 to 16 last year. However, because three of these accidents happened over a short two-to-three week period immediately following the second Malaysia loss, this gave rise to the media’s “worst year ever” scare stories. This underlines the belief that it is not the fatal accident rate but accident frequency that the industry’s safety is judged by.

2014 has continued the trend of improving safety but is unlikely to be thought of in those terms.

The average annual number of fatal accidents for the last five years is 20.4. The annual average for the period 2000-2009 was 27.4 while the 1990s average was 37.9. The annual averages for the 1980s and 1970s were 33.1 and 40.0 respectively.

Year	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Fatal Accidents	33	23	25	28	23	27	25	15	19	16

Period	1970 - 1979	1980 - 1989	1990 - 1999	2000 - 2009	2010 - 2014
Annual Average	40.0	33.1	37.9	27.4	20.4



Unfortunately, although there were three fewer fatal accidents in 2014 than in 2013, the high death toll from MH370, AirAsia and Air Algerie means that there were considerably more passenger and crew fatalities last year than the year before. The total number of passengers and crew killed in 2014 was 675, the highest number of fatalities in airline operation since 2010 when 822 people died.

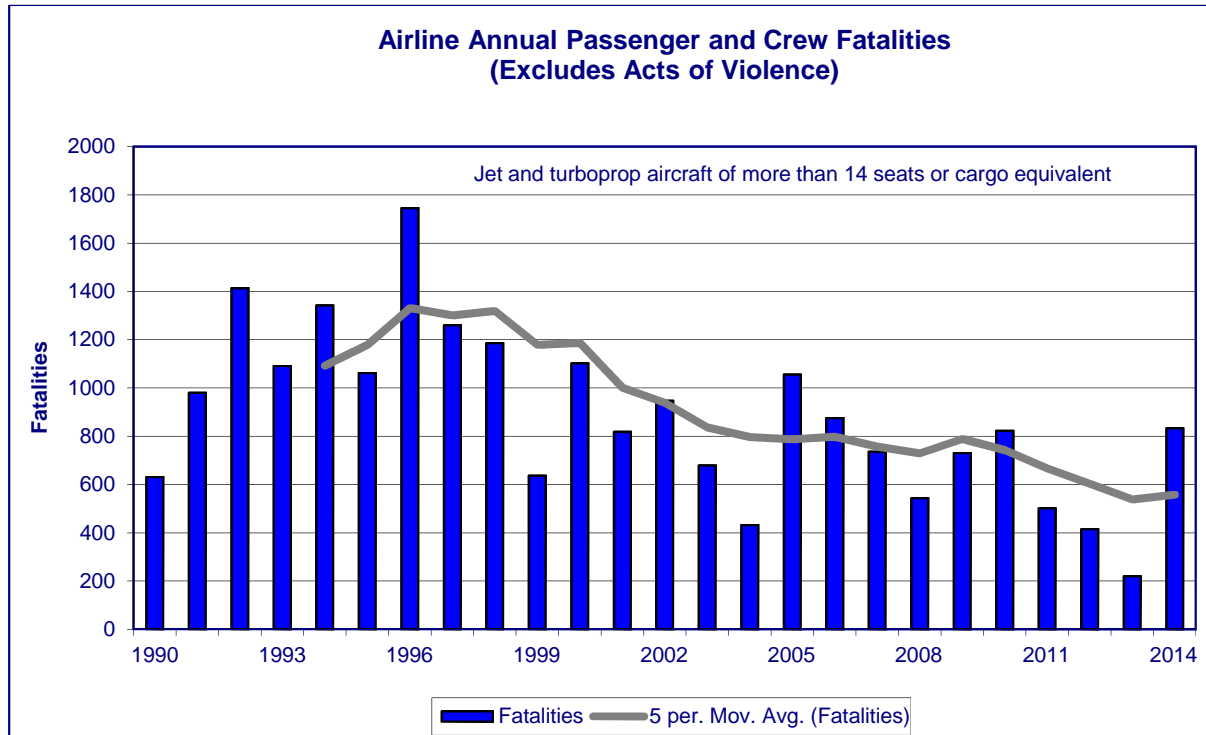
However, with generally so few fatalities in airline operations nowadays, one “bad” accident can make all the difference to the result. The year 2013, with just 220 passengers and crew members being killed, had the least number of airline fatalities for more than 60 years. The good result in 2013 could be said to owe something to luck as, in only slightly different circumstances, the death toll from the Asiana Boeing 777 crash at San Francisco could have been very much worse. Fortunately there were only three fatalities in that accident but it is not hard to imagine that all 307 passengers and crew on board may have been killed. If that had been the case, the total number of fatalities in 2013 would have more than doubled.

The annual average number of fatalities for the period 2000-2009 was 793 and that for the 1990s was 1,135. The annual average for the first five years of this decade (2010-2014) is just 527.

Annual Passenger & Crew Fatalities (Jet and turboprop aircraft) – Last 10 Years										
Year	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Fatalities	1,056	876	737	544	731	822	502	416	220	675

Passenger & Crew Fatalities (Jet and turboprop aircraft) – Decade Averages					
Period	1970 - 1979	1980 - 1989	1990 - 1999	2000 - 2009	2010 - 2014
Annual Average	1467.4	1072.2	1135.0	792.5	527.0

To put these improvements into perspective, if the current decade’s annual average is maintained, over 2,600 fewer passengers and crew will be killed in airline accidents during the period 2010-2019 than in the previous decade and over 6,000 fewer than during the 1990s.

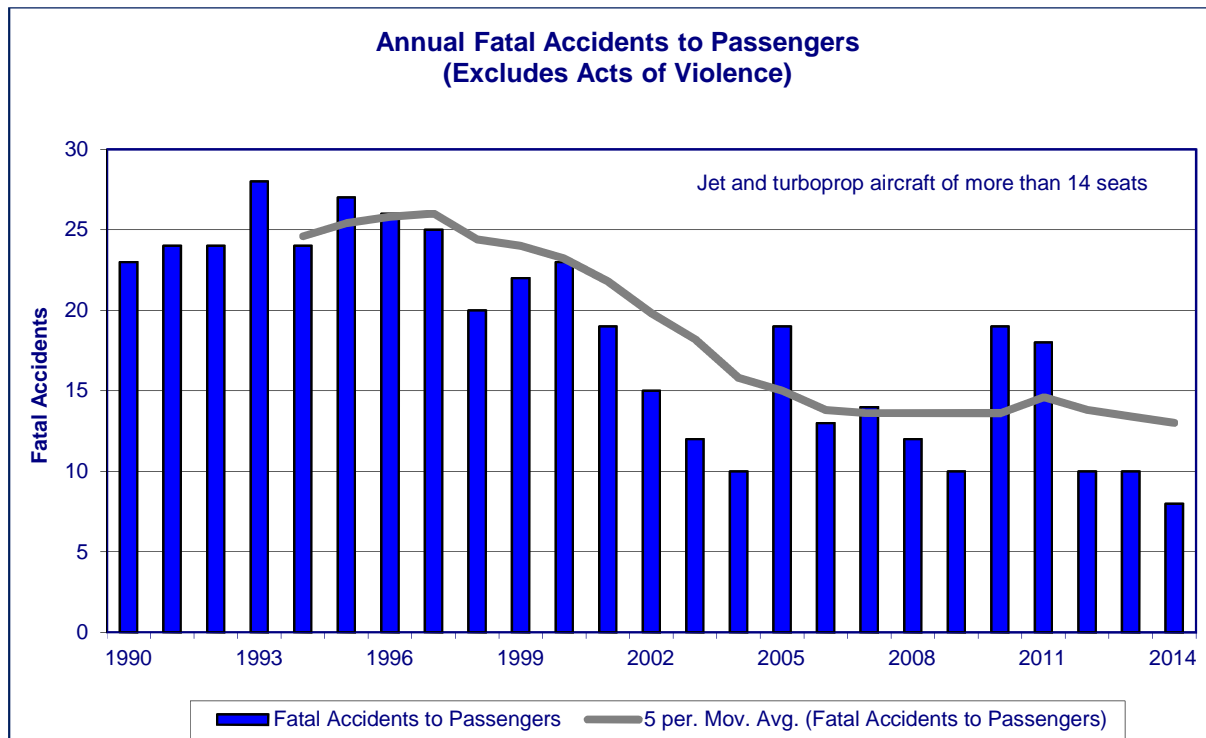


On a more restrictive basis, the eight fatal accidents involving passenger deaths on revenue passenger flights in 2014 is the lowest seen in any year since 1946. This is also less than the previous lowest years, 2013, 2012, 2009 and 2004, which all had only 10 fatal accidents each and were, until last year, all, in turn, “the best years ever”. However there were 18 such accidents in 2011 and 19 in 2010 so the annual average so far for this decade is still 13.0, only a marginal improvement on the previous 10 years (2000-2009) when the annual average was 14.7. The annual average number of fatal accidents involving revenue passengers for the 1990s was 24.3.

Again, as in other recent years, many of the fatal accidents in 2014 involved small local or regional operators, which are probably little known outside of the communities they serve.

Annual Fatal Accidents to Passengers (Jet and turboprop aircraft) – Last Ten Years										
Year	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Fatal Accidents	19	13	14	12	10	19	18	10	10	8

Fatal Accidents to Passengers (Jet and turboprop aircraft) – Decade Averages					
Period	1970 - 1979	1980 - 1989	1990 - 1999	2000 - 2009	2010 - 2014
Annual Average	28.8	24.6	24.3	14.7	13.0

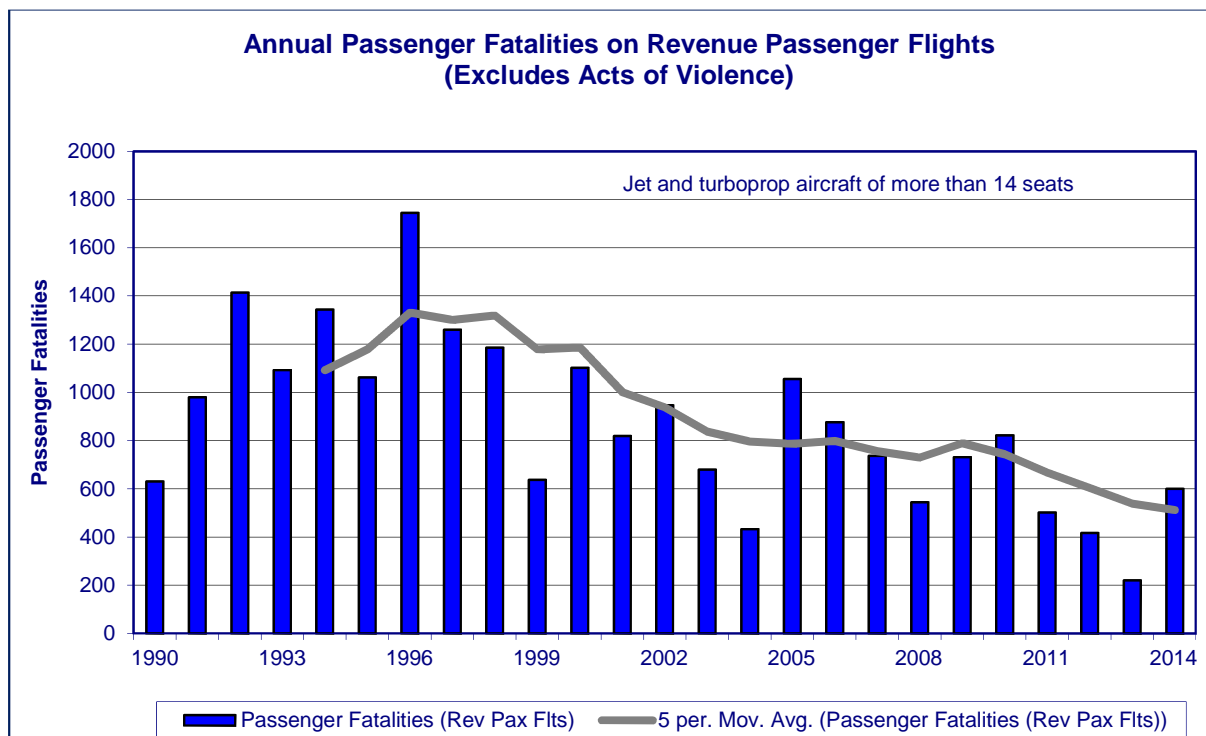


Despite the low number of fatal accidents involving revenue passengers in 2014, the loss of MH370, which resulted in 227 passenger deaths, together with AirAsia and Air Algerie means that the number of passenger fatalities during the year increased very significantly, from just 162 in 2013 to 600 last year. However, 2014’s result was still better than most years before 2011.

The annual average number of passenger fatalities so far this decade is now 421.6, almost 40% down on the average for the previous decade, which was 680.4, and less than half the annual average for the 1990s, which was 962.0.

Annual Passenger Fatalities on Revenue Passenger Flights (Jet and turboprop aircraft) – Last 10 Years										
Year	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Fatalities	905	790	633	456	614	722	406	364	162	600

Passenger Fatalities on Revenue Passenger Flights (Jet and turboprop aircraft) – Decade Averages					
Period	1970 - 1979	1980 - 1989	1990 - 1999	2000 - 2009	2010 - 2014
Annual Average	1289.3	945.0	962.0	680.4	421.6



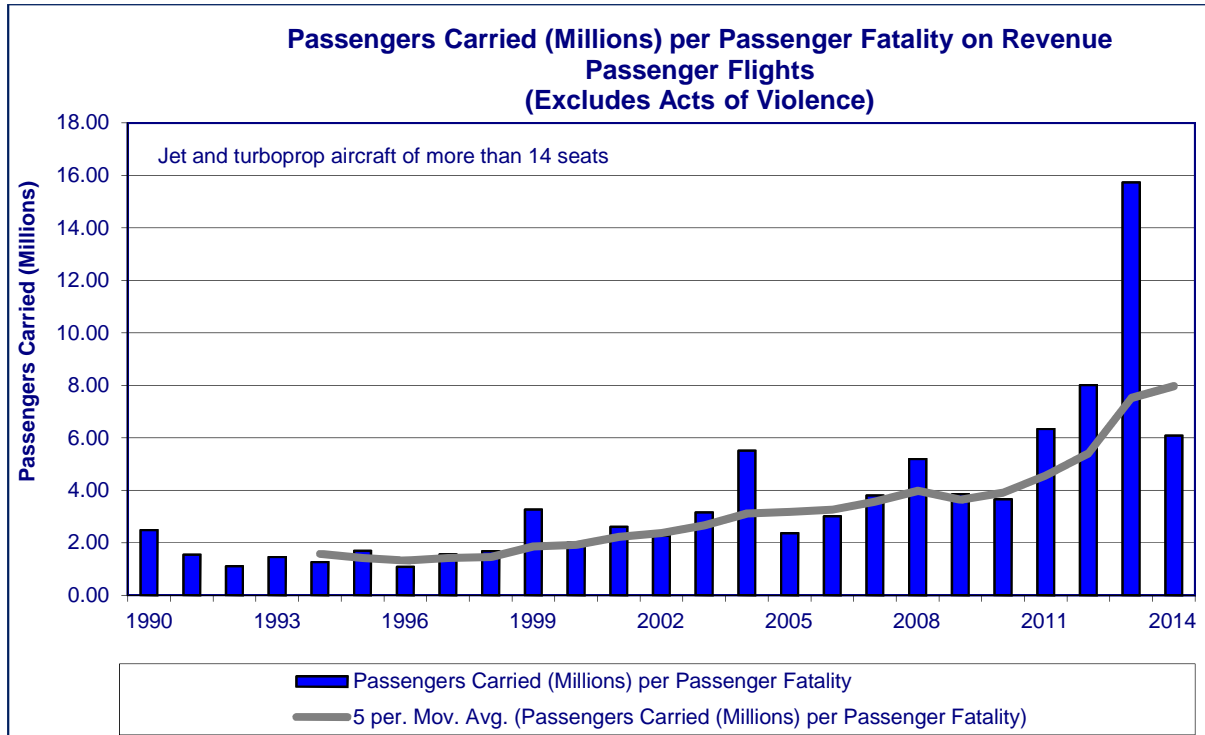
The estimated passenger fatality rate for 2014 was one per 6.1 million passengers carried. This is down on the one per 15.7 million in 2013, an exceptional year, and the one per 8.0 million in 2012 but is still better than any year before 2011.

The passenger fatality rate for the last five years is better than one per 7 million passengers carried, for the last decade (2000-2009) it was one per 3.7 million and for the 1990s one per 1.8 million. On this basis, passenger air travel is now, on average, almost four times safer than it was in the 1990s.

The worst accidents in 2014 were **1)** the Malaysia Boeing 777 which disappeared on 8 March, with 227 passengers and 12 crew on board and is believed to have crashed in the southern Indian Ocean **2)** the Indonesia AirAsia Airbus A320 on 28 December which crashed in the Java Sea killing all 155 passengers and seven crew on board **3)** the Air Algerie/Swiftair MD-83 on 24 July which crashed while en route from Ouagadougou, Burkina Faso to Algiers, Algeria killing all 110 passengers and six crew on board **4)** the TransAsia ATR 72, on 23 July, which crashed among buildings in Xixi village while attempting to land at Makung, Taiwan killing 44 passengers and four crew and **5)** the Sepahan Airlines An-140 on 10 August, which crashed almost immediately after take-off from Mehrabad airport, Tehran following the reported failure of its right engine, killing the 42 passengers and six crew on board.

These five accidents accounted for a total of 578 passenger fatalities, 96% of the total number of passengers killed in accidents on revenue passenger flights during the year.

The loss giving rise to the greatest number of passenger and crew fatalities (283 passenger and 15 crew fatalities) during 2014 was the shooting down of a Malaysia Boeing 777 over Ukraine on 17 July. However, as an apparent deliberate act of violence rather than an accident, it is excluded from the statistics here.



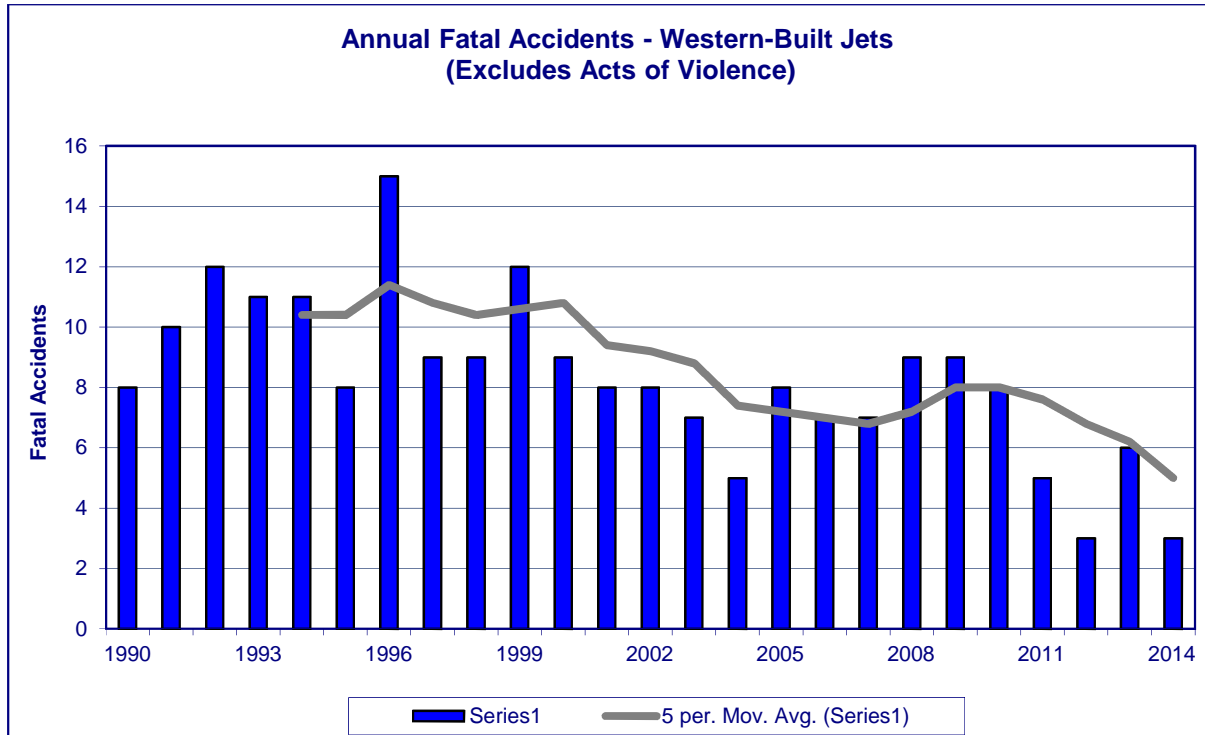
Western-Built Jets

During 2014, Western-built jets, which carry more than 90% of the world's traffic, suffered only three fatal accidents but these resulted in a total 517 passenger and crew deaths. This is one of the lowest number of fatal accidents since the class entered service. However, the relatively high death toll in the three accidents meant that 2014 was the worst year for fatalities on jets since 2010.

With only three fatal accidents in 2014, the annual average for the last five years has now fallen to 5.0. The annual average for the previous decade was 7.7 and that for the 1990s, 10.5.

Year	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Fatal Accidents	8	7	7	9	9	8	5	3	6	3

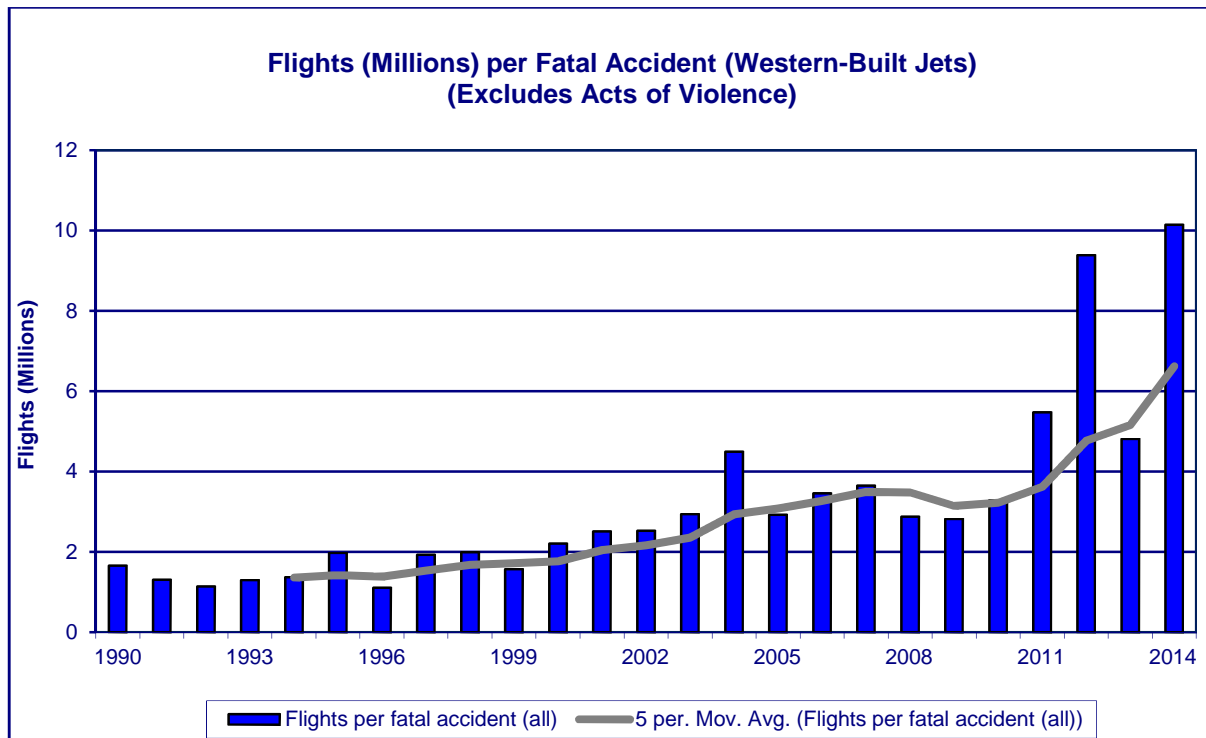
Period	1970 - 1979	1980 - 1989	1990 - 1999	2000 - 2009	2010 - 2014
Annual Average	12.1	10.5	10.5	7.7	5.0



With only three fatal accidents involving Western-built jets in 2014, the fatal accident rate for the year has jumped to one per 10.1 million flights. The fatal accident rate for Western-built jets in 2013 was one per 4.8 million flights and, for 2012, one per 9.4 million flights.

The long-term trend is for improving safety and the current underlying rate is probably around one fatal accident per 6 million flights. This would make worldwide Western-built jet operations twice as safe now as they were 10 years ago, five times as safe as in the 1980s and almost 10 times safer than in the 1970s.

Fatal Accident Rate (Western-Built Jets)					
Period	1970 - 1979	1980 - 1989	1990 - 1999	2000 - 2009	2010 - 2014
Flights (Millions) per Fatal Accident	0.67	1.05	1.49	3.0	5.7



Despite the decrease in the number of fatal accidents in 2014, unfortunately all three accidents involved large losses of life – the worst was MH370 that killed 239 passengers and crew – giving an average death toll per accident for the year of 172.3, one of the worst averages for very many years.

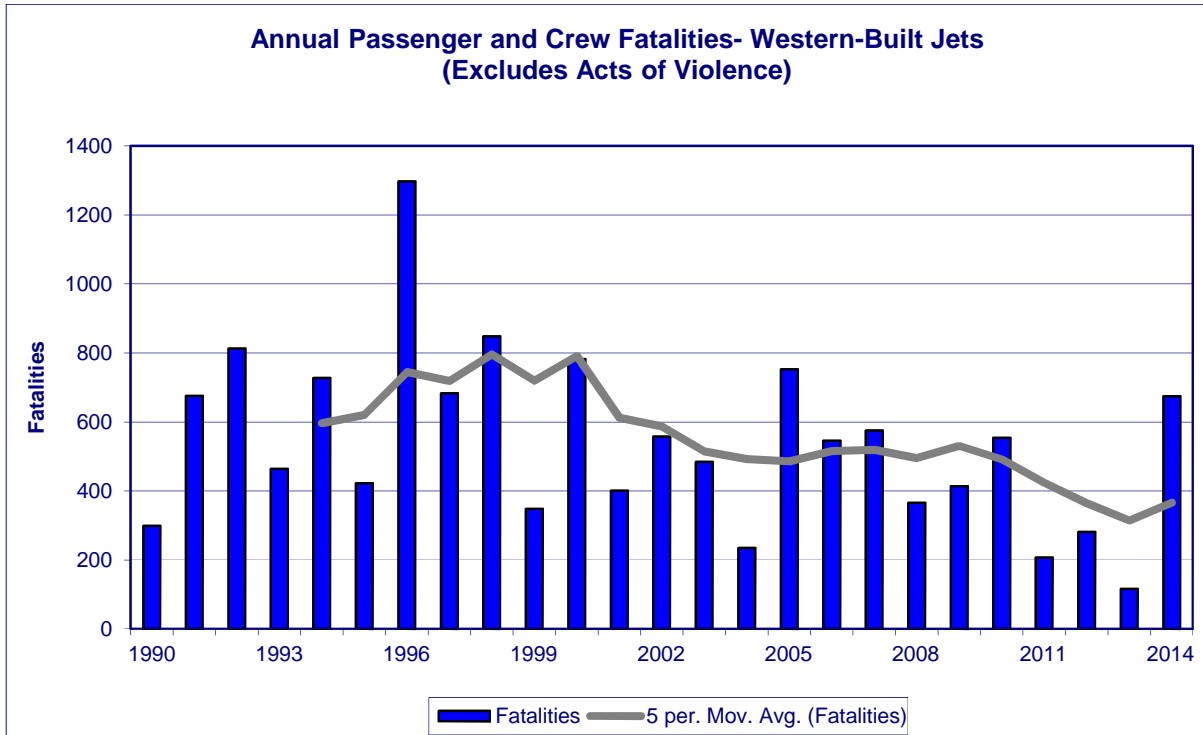
The annual average for passenger and crew fatalities, so far, for the current decade (2010-2014) is 335, that for the previous decade was 512 and the average for the 1990s was 658.

Annual Passenger & Crew Fatalities (Western-Built Jets) – Last Ten Years										
Year	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Fatalities	753	546	576	366	414	554	207	281	116	517

Passenger & Crew Fatalities (Western-Built Jets) – Decade Averages					
Period	1970 - 1979	1980 - 1989	1990 - 1999	2000 - 2009	2010 - 2014
Annual Average	761.5	587.0	657.8	511.6	335.0

Average Passenger & Crew Fatalities per Fatal Accident (Western-Built Jets) – Last 10 Years											
Year	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	
Average Fatalities	94.1	78.0	82.3	40.7	46.0	69.3	41.4	93.7	19.3	172.3	

Passenger & Crew Fatalities per Fatal Accident (Western-Built Jets) – Decade Averages					
Period	1970 - 1979	1980 - 1989	1990 - 1999	2000 - 2009	2010 - 2014
Average Fatalities	62.9	55.9	62.6	66.5	67.0

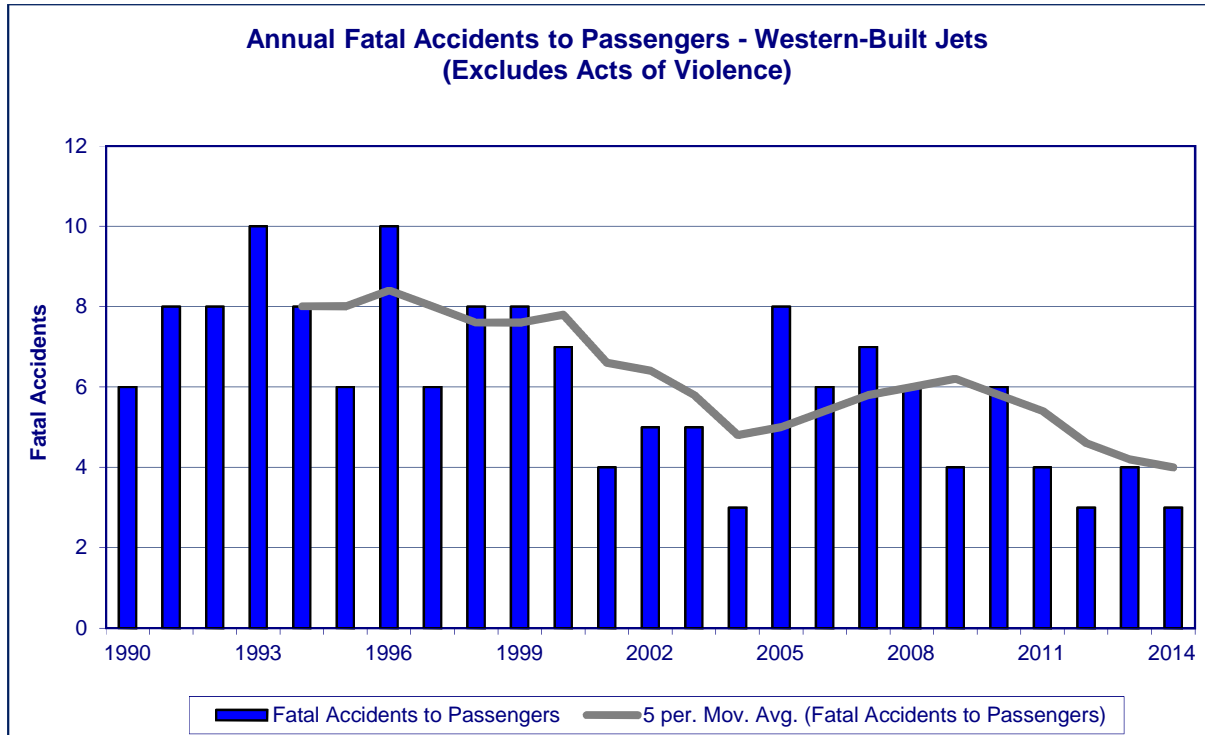


All three of the jet fatal accidents in 2014 involved passenger fatalities on revenue passenger flights. There were four such accidents in 2013, three in 2012 and four in 2011. These three accidents gave rise to 492 passenger fatalities. In 2013, the four fatal accidents resulted in just 90 passenger deaths while the three fatal accidents in 2012 killed 269 passengers.

Year	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Fatal Accidents	8	6	7	6	4	6	4	3	4	3

Period	1970 - 1979	1980 - 1989	1990 - 1999	2000 - 2009	2010 - 2014
Annual Average	9.1	8.5	7.8	5.5	4.0

The average annual number of fatal accidents (to passengers) so far this decade is 4.0, about 30% down on the last decade’s average of 5.5 and considerably better than that for the 1990s of 7.8.

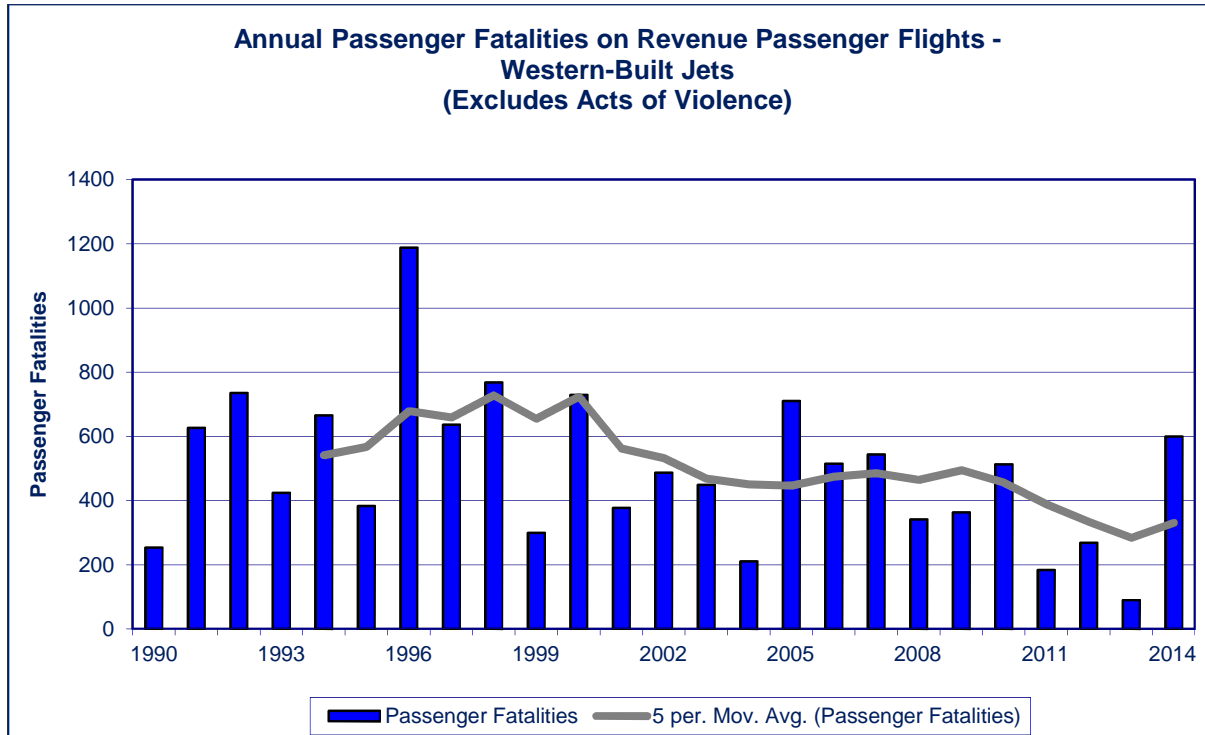


As noted earlier, 492 passengers were killed on revenue passenger flights operated by Western-built jets during 2014. This is the highest number since 2010 when 513 passengers died.

The annual average for the current decade so far is 310, that for the previous decade, 473, and for the 1990s, 598.

Annual Passenger Fatalities on Revenue Passenger Flights (Western-Built Jets) – Last 10 Years										
Year	2005	2007	2007	2008	2009	2010	2011	2012	2013	2014
Fatalities	710	515	544	341	363	513	184	269	90	492

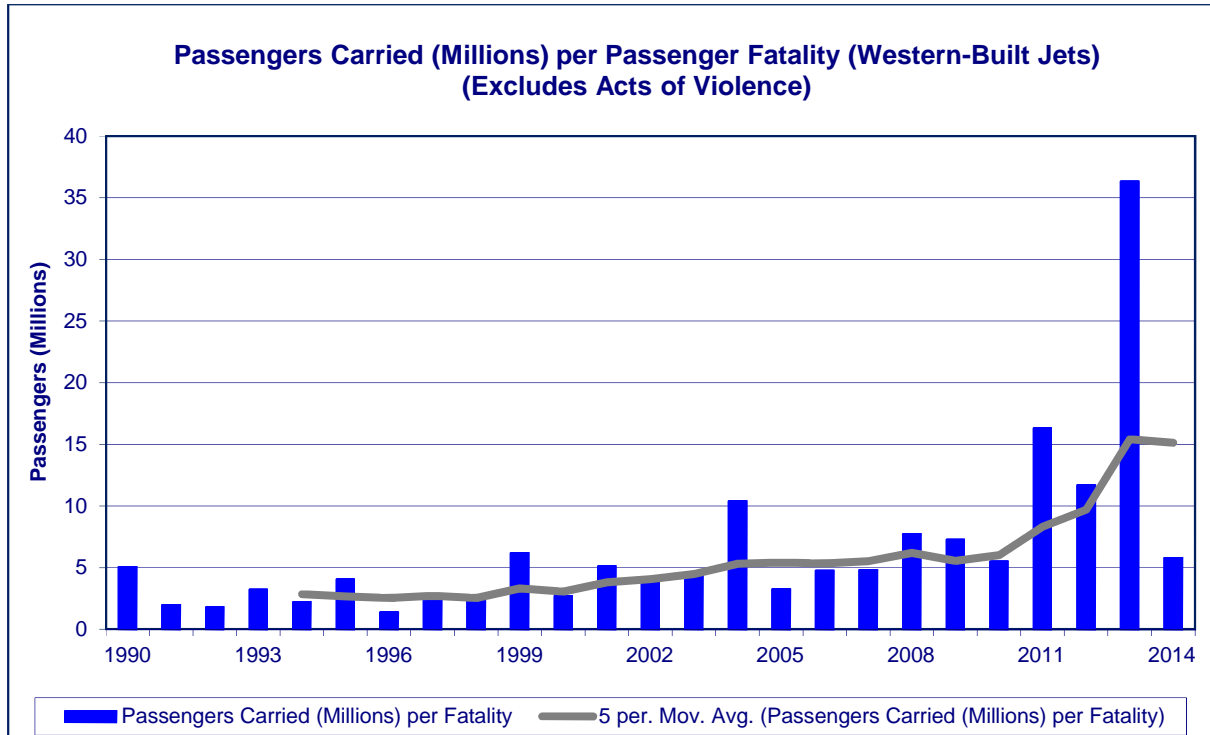
Passenger Fatalities on Revenue Passenger Flights (Western-Built Jets) – Decade Averages					
Period	1970 - 1979	1980 - 1989	1990 - 1999	2000 - 2009	2010 - 2014
Annual Average	695.3	539.6	598.0	472.6	309.6



The passenger fatality rate on Western-built jets in 2014 was a disappointing one per 7.1 million passengers carried. This is markedly worse than 2013 but that year, in many ways, was exceptional and 2014 still comes out better than any year before 2004 except for the 'fluke year' of 1984.

The passenger fatality rate for the current decade so far is about one per 9.5 million passengers carried while that for the period 2000-2009 was one per 4.8 million and for the 1990s, one per 2.5 million. This suggests that, on this basis, passengers on Western-built jet flights are now twice as safe as in the 2000s about four times safer than during the 1990s and almost 10 times safer than in the 1970s.

Passenger Fatality Rate (Western-Built Jets)					
Period	1970 - 1979	1980 - 1989	1990 - 1999	2000 - 2009	2010 - 2014
Passengers Carried (Millions) per Passenger Fatality	1.05	2.0	2.5	4.8	9.5

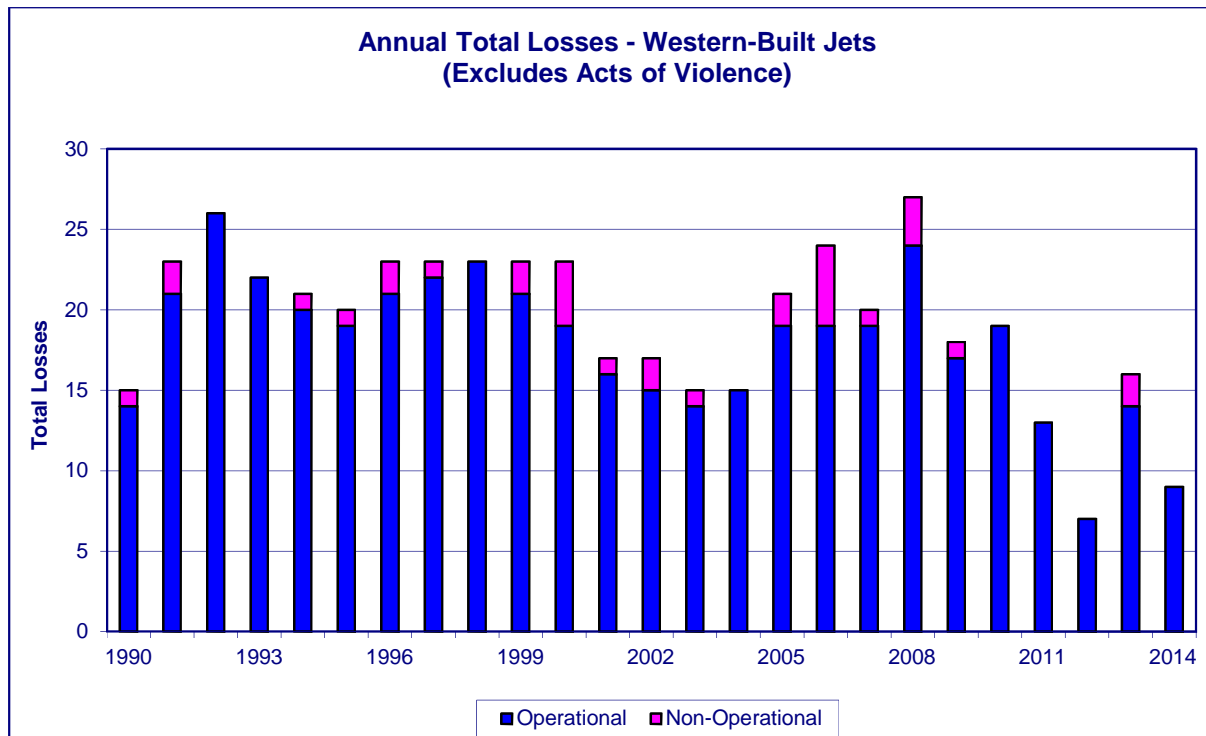


At the time of writing, Western-built jets had suffered nine confirmed insurance total losses during 2014. This is five less than in 2013 but two more than in 2012.

The average annual number of operational total losses for the current decade is 12.4, increasing to 12.8 if non-operational losses are also included. For the last decade, it was 17.7 (19.7 including non-operational losses) and for the 1990s, 20.9 (21.9).

Annual All-Risk Total Losses (Western-Built Jets) – Last 10 Years										
Year	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Operational	19	19	19	24	17	19	13	7	14	9
Non-Operational	2	5	1	3	1	0	0	0	2	0
All	21	24	20	27	18	19	13	7	16	9

All-Risk Total Losses (Western-Built Jets) – Decade Averages					
Period	1970 - 1979	1980 - 1989	1990 - 1999	2000 - 2009	2010 - 2014
Annual Average Operational	17.6	16.5	20.9	17.7	12.4
Annual Average All	18.1	17.4	21.9	19.7	12.8



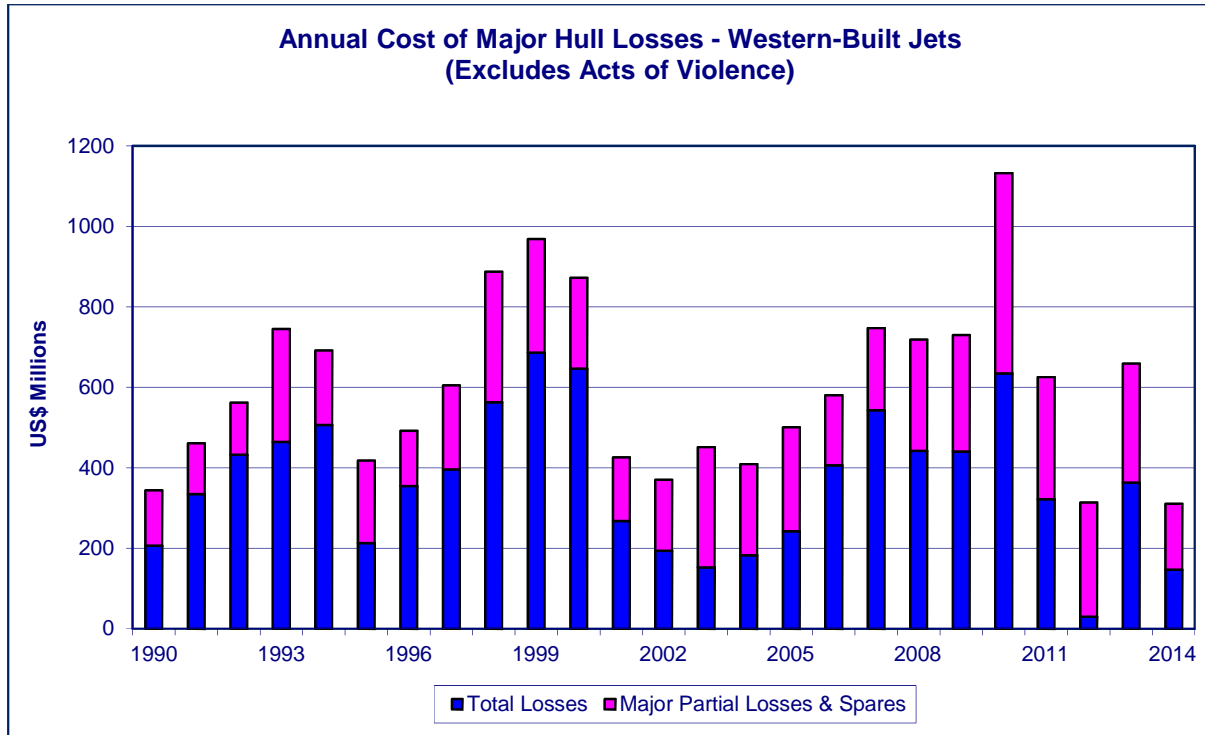
The estimated cost of major hull claims (total losses and major partial losses) in 2014 is provisionally estimated at \$311 million. This is about half the figure for most recent years but almost identical to the result for 2012. The worst recent year was 2010 when the cost of major hull claims totaled \$1,133m. The cost of major hull claims in 2013 was \$659 million, and in 2011, \$626 million.

The result for 2014 is roughly half the annual average for the current decade of \$609 million. The annual average for the previous decade was \$581 million and for the 1990s, \$618 million.

Year	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Total Losses	242	406	543	442	440	635	322	30	363	147
Major Partial	244	174	205	277	290	348	218	274	296	164
Spares*	15	0	0	0	0	150	86	10	0	0
Total	501	580	748	719	730	1,133	626	314	659	311

* Spares – significant losses falling on the airline's hull policy only.

Period	1970 - 1979	1980 - 1989	1990 - 1999	2000 - 2009	2010 - 2014
Annual Average Total Losses	121.0	194.2	415.6	351.6	299.4
Annual Average Major Partial	31.1	92.6	202.1	227.6	260.0
All (including spares)	152.1	286.8	617.7	580.7	608.6



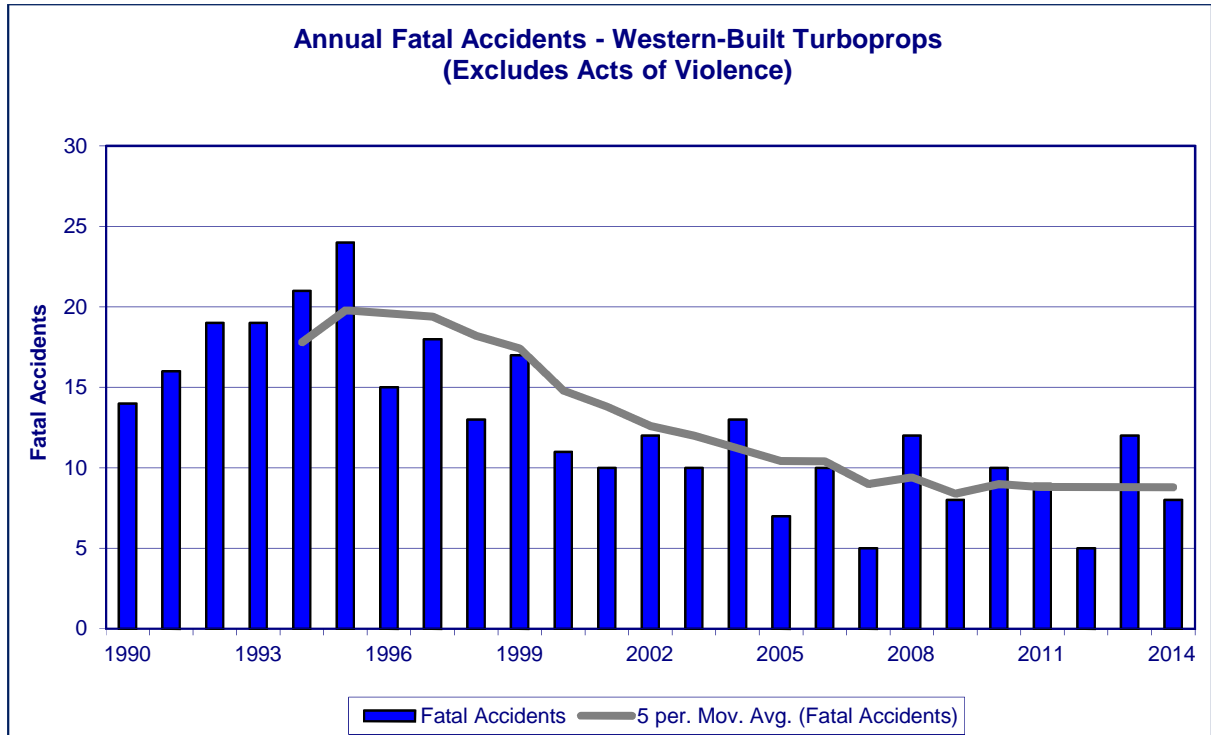
Western-Built Turboprops

During 2014, Western-built turboprops (of more than 14 passenger seats or cargo equivalent) suffered eight fatal accidents resulting in 82 passenger and crew deaths. This is down on 2013 when there were 12 fatal accidents and 99 fatalities, but is close to the average for the current decade so far.

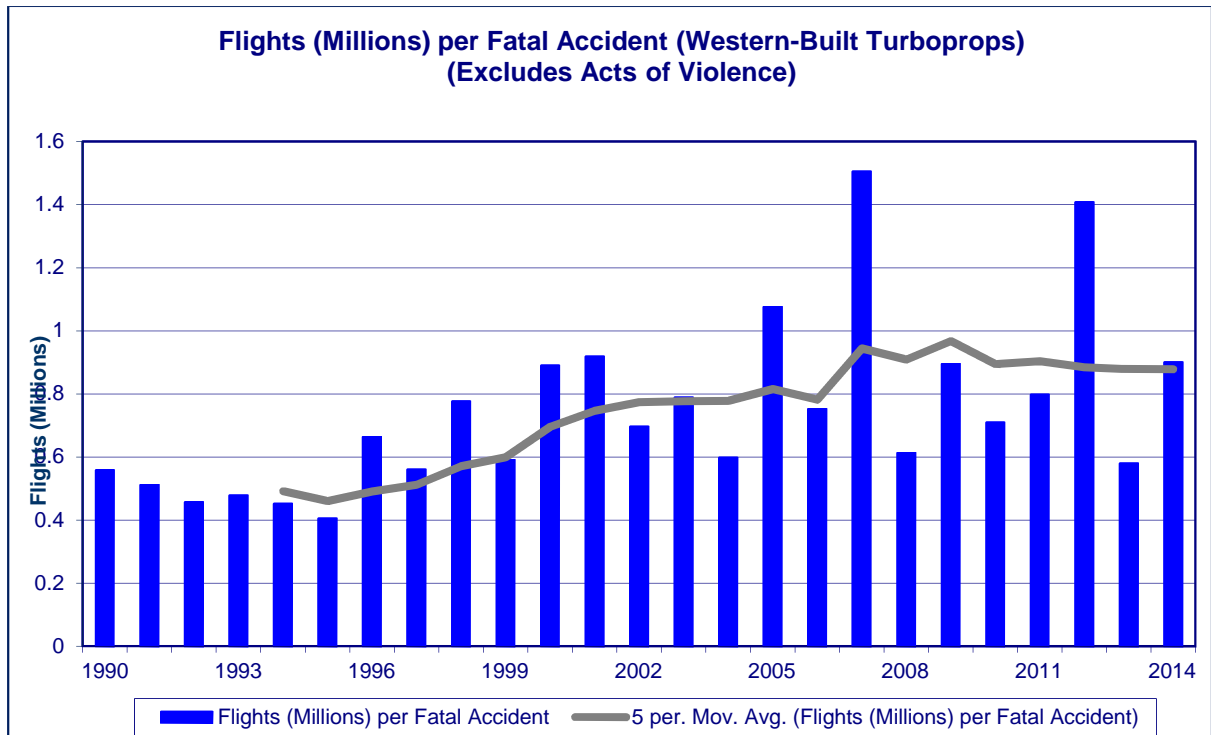
The average annual number of fatal accidents so far in this decade (2010-2014) is 8.8 while the average for the previous decade was 9.8. In comparison, the annual average for the 1990s was 17.6.

Year	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Fatal Accidents	7	10	5	12	8	10	9	5	12	8

Period	1970 - 1979	1980 - 1989	1990 - 1999	2000 - 2009	2010 - 2014
Annual Average	15.8	15.1	17.6	9.8	8.8



The fatal accident rate for Western-built turboprops in 2014 is estimated as one per 0.9 million flights, which is better than in 2013 but considerably worse than 2012 when the rate was one per 1.4 million flights. The safest year for this class of aircraft was 2007 when the fatal accident rate was one per 1.5 million flights. Despite the good results of 2012 and 2007, there has been no significant sustained improvement in the fatal accident rate for this class of aircraft, which has now been at around one per 0.8 or 0.9 million flights for more than 10 years.



The 82 passenger and crew fatalities on Western-built turboprops in 2014 is an improvement on the 99 people killed on board this class of aircraft in 2013.

The annual average for passenger and crew deaths on this class of aircraft so far in this decade is 106.2 which is about 20% worse than the annual average for the previous decade of 86.1. The average for the 1990s was 197.1, for the 1980s, 199.1, and for the 1970s, 258.9.

Annual Passenger & Crew Fatalities (Western-Built Turboprops) – Last 10 Years

Year	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Fatalities	73	88	26	110	108	167	113	70	99	82

Passenger & Crew Fatalities (Western-Built Turboprops) – Decade Averages

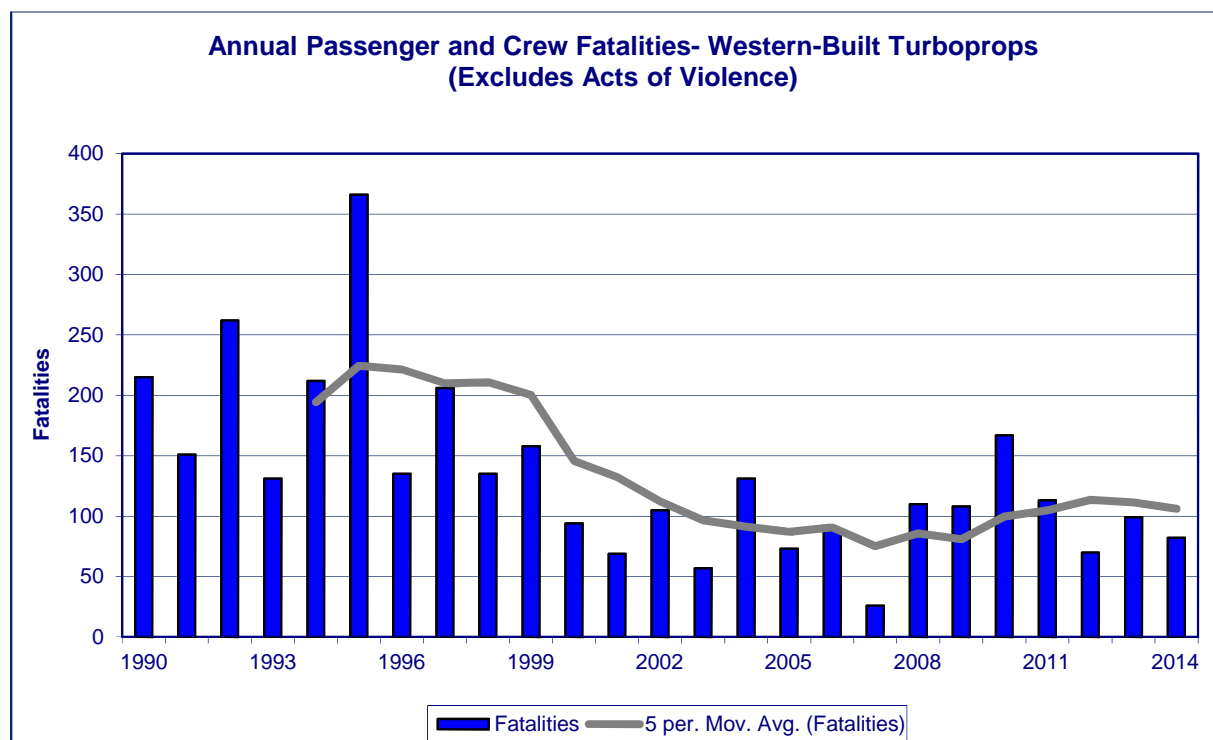
Period	1970 - 1979	1980 - 1989	1990 - 1999	2000 - 2009	2010 - 2014
Annual Average	258.9	199.1	197.1	86.1	106.2

Average Passenger & Crew Fatalities per Fatal Accident (Western-Built Turboprops) – Last 10 Years

Year	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Average Fatalities	10.4	8.8	5.2	9.2	13.5	16.7	12.6	14.0	8.3	10.3

Passenger & Crew Fatalities per Fatal Accident (Western-Built Turboprops) – Decade Averages

Period	1970 - 1979	1980 - 1989	1990 - 1999	2000 - 2009	2010 - 2014
Average Fatalities	16.4	13.2	10.9	8.8	12.1

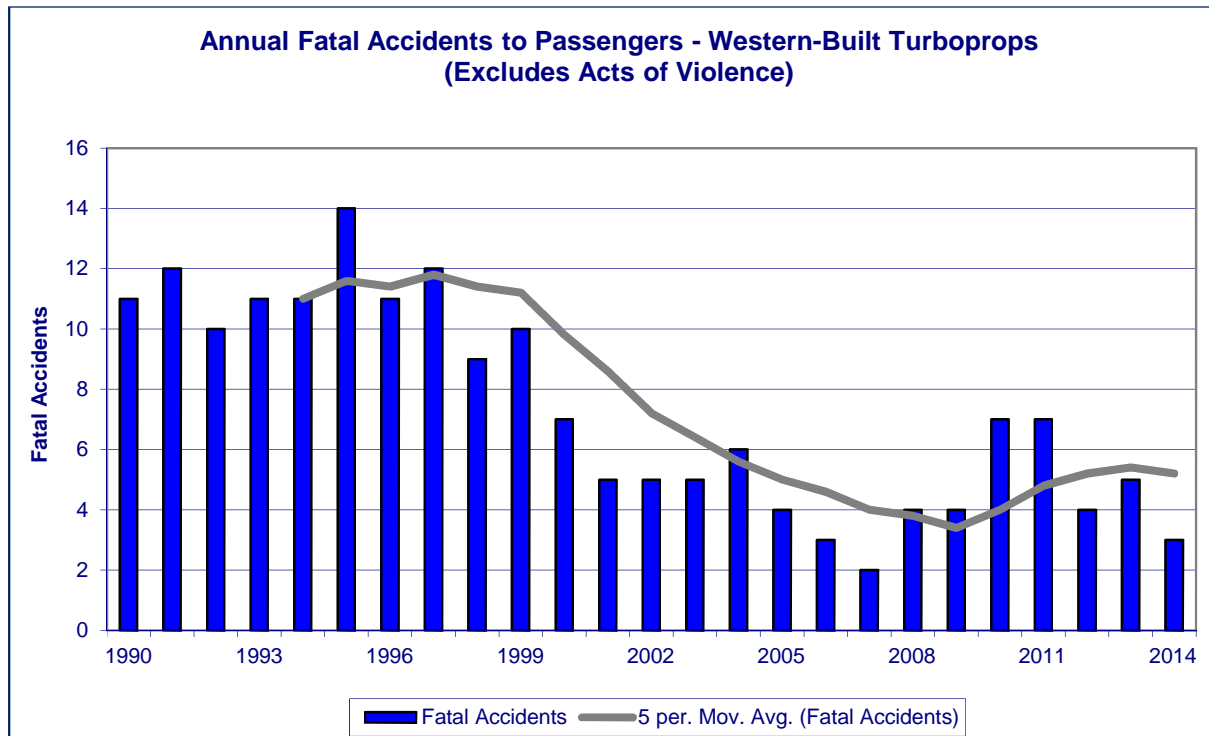


There were three fatal accidents to passengers on revenue passenger flights during 2014. This is the lowest number since 2007 when there were only two such accidents. The three accidents in 2014 resulted in 61 passenger deaths compared with 67 the year before.

The average annual number of fatal accidents (to passengers) for the current decade is 5.2, for the previous decade, 4.5, and for the 1990s, 11.1.

Year	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Fatal Accidents	4	3	2	4	4	7	7	4	5	3

Period	1970 - 1979	1980 - 1989	1990 - 1999	2000 - 2009	2010 - 2014
Annual Average	10.6	10.0	11.1	4.5	5.2



There were 61 passengers killed on revenue passenger flights operated by Western-built turboprops during 2014. This is some 10% better than the 67 passengers killed on these flights in 2013, and is considerably better than the 89 passengers killed in 2011 or the 133 killed in 2010.

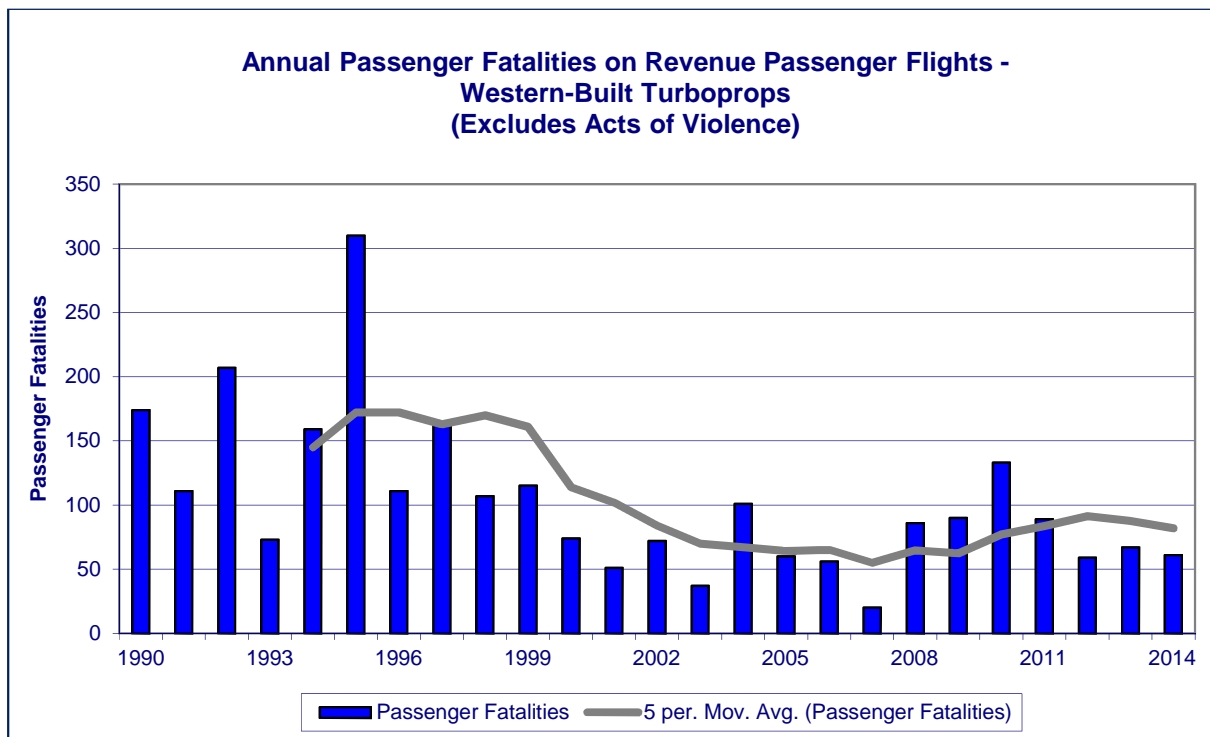
The result for 2014 shows an improvement on the annual average for the current decade of 81.8 but is similar to the average for the previous decade (2000-2009) of 64.7. However it is considerably better than the average for the 1990s of 152.9.

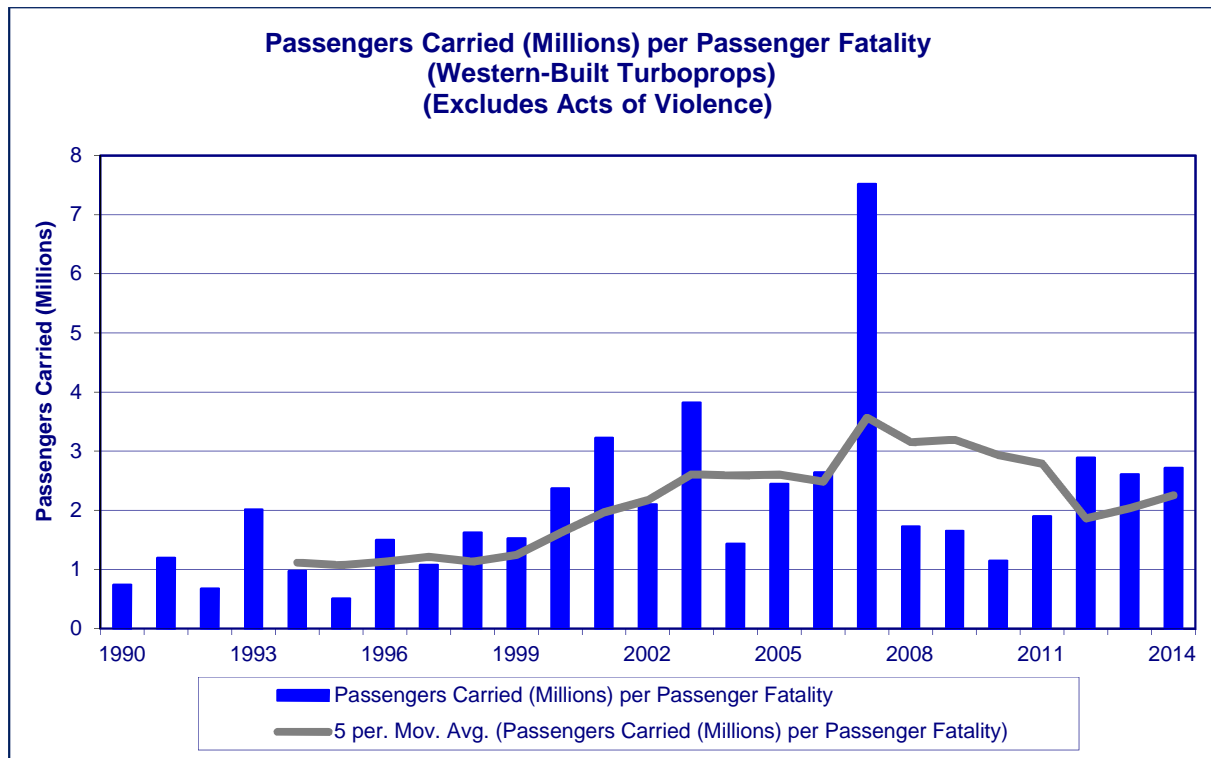
**Annual Passenger Fatalities on Revenue Passenger Flights (Western-Built Turboprops)
– Last 10 Years**

Year	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Fatalities	60	56	20	86	90	133	89	59	67	61

**Passenger Fatalities on Revenue Passenger Flights (Western-Built Turboprops)
– Decade Averages**

Period	1970 - 1979	1980 - 1989	1990 - 1999	2000 - 2009	2010 - 2014
Annual Average	213.4	155.2	152.9	64.7	81.8





The passenger fatality rate in 2014 for Western-built turboprops was one per 2.7 million passengers carried. This shows a slight improvement on 2013 when the rate was one per 2.6 million passengers carried, but worse than the rate for 2012 of one per 2.9 million passengers carried. However, the four previous years, 2008 through 2011, all had rates below one per 2.0 million passengers carried. The year 2014 might be considered as being typical of the current level of safety for this class of aircraft overall, which, unfortunately, seems to have shown no improvement over at least the last 10 years.

The number of confirmed airline insurance total losses suffered by Western-built turboprops during the year, currently standing at 19 (includes one non-operational loss), is three less than the 22 total losses (all operational) in 2013.

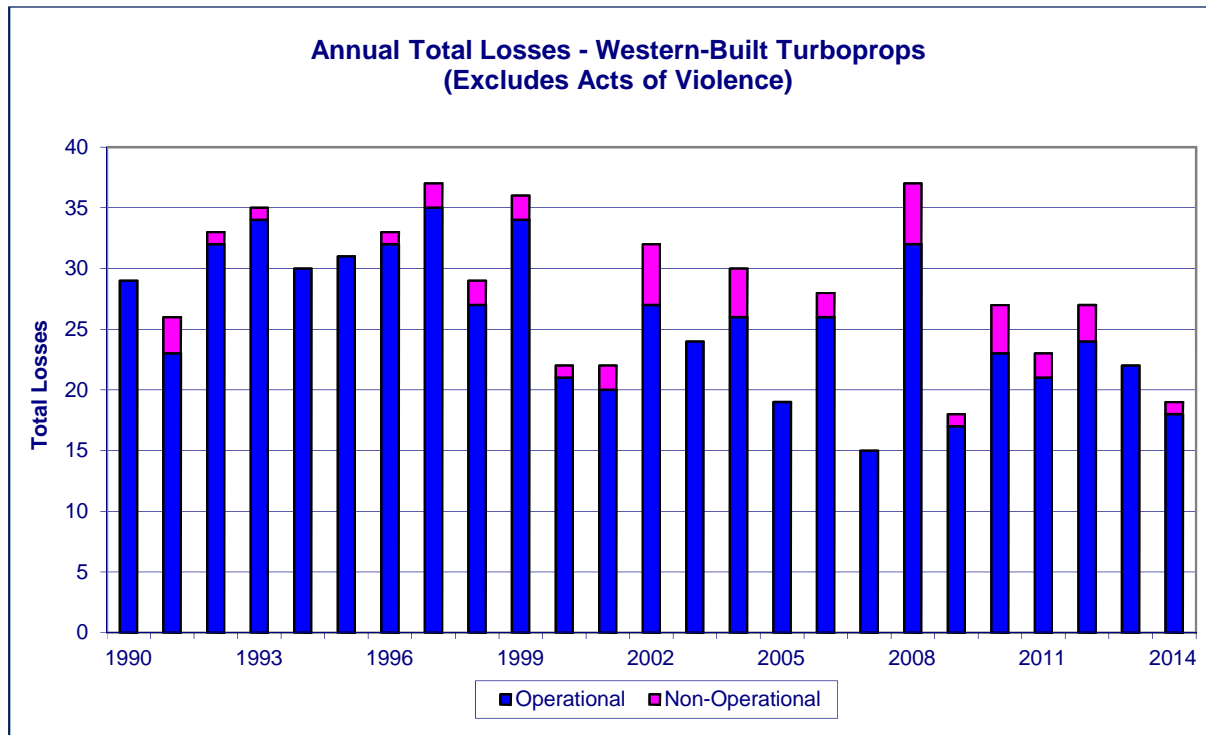
Based on experience, it is thought to be likely that more total losses will be confirmed in the coming months but that the final figure for 2014 will probably still end up less than or similar to that of 2013 and the average for the 2000s.

The annual average for the current decade so far is 21.6 (23.6 including non-operational losses), for the previous decade 23.1 (25.1) and for the 1990s, 30.7 (31.9).

Year	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Operational	19	26	15	32	17	23	21	24	22	18
Non-Operational	0	2	0	5	1	4	2	3	0	1
All	19	28	15	37	18	27	23	27	22	19

Period	1970 - 1979	1980 - 1989	1990 - 1999	2000 - 2009	2010 - 2014
Annual Average Operational	26.2	27.8	30.7	23.1	21.6

Annual Average All	27.7	29.5	31.9	25.1	23.6
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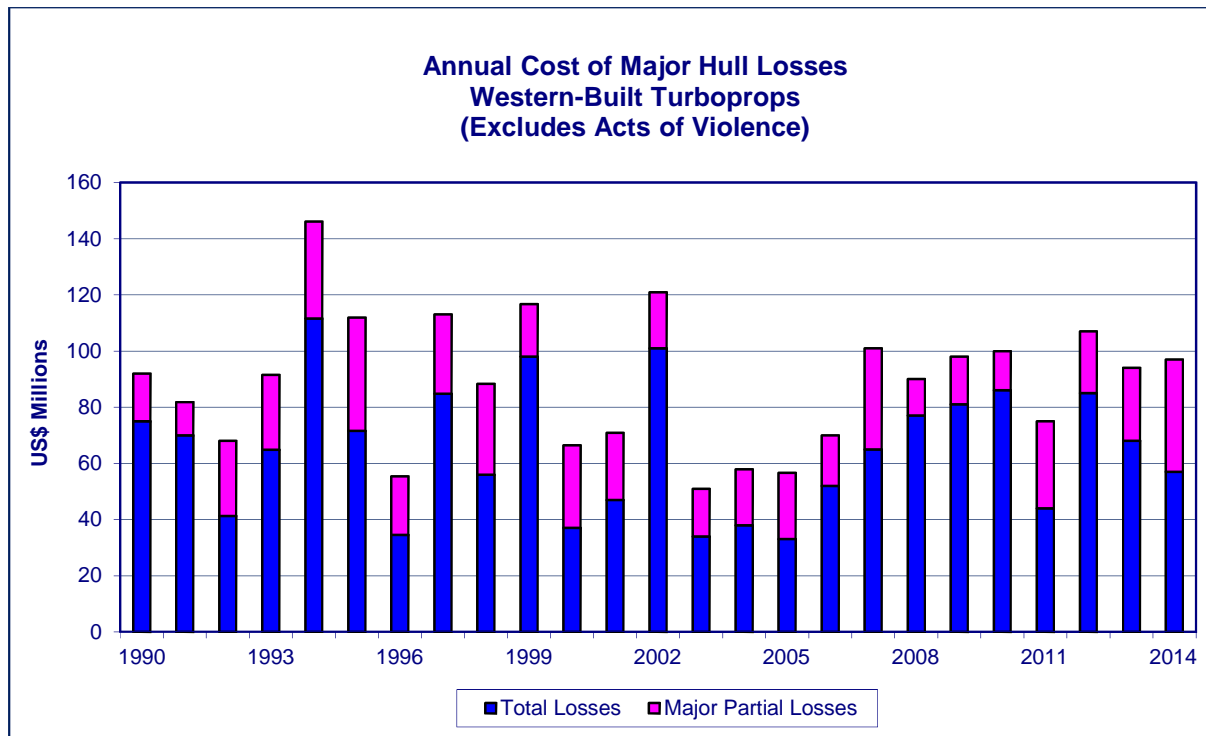
The estimated cost of major hull claims (total losses and major partial losses) in 2014 for Western-built turboprops is provisionally estimated at \$97 million. This is similar to the \$94 million incurred in 2013 and is more or less typical of the level of cost seen in most recent years.

The result recorded in 2014 matches the annual average for the current decade of \$95.8 million but is about 25% worse than the average for the previous decade of \$77.7 million. The annual average for the 1990s was \$96.5 million.

Year	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Total Losses	33	52	65	77	81	86	44	85	68	57
Major Partial	24	18	36	13	17	14	31	22	26	40
Spares*	0	0	0	0	0	0	0	6	0	0
Total	57	70	101	90	98	100	75	113	94	97

* Spares – significant losses falling on the airline’s hull policy only.

Period	1970 - 1979	1980 - 1989	1990 - 1999	2000 - 2009	2010 - 2014
Annual Average Total Losses	24.9	48.8	70.8	56.4	68.0
Annual Average Major Partial	2.9	11.1	25.7	21.3	26.6
All (including spares)	27.8	59.9	96.5	77.7	95.8



Eastern-Built Jets

The overall experience of airline-operated Eastern-built jets in 2014 and 2013 was considerably better, with no fatal accidents being suffered by this class of aircraft in either year. This is also the third year running where no revenue passengers have been killed.

Annual Fatal Accidents (Eastern-Built Jets) – Last 10 Years

Year	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Fatal Accidents (All)	3	2	1	1	3	2	4	2	0	0
Fatal Accidents (Passengers)	0	2	1	0	2	1	3	0	0	0

Fatal Accidents (Eastern-Built Jets) – Decade Averages

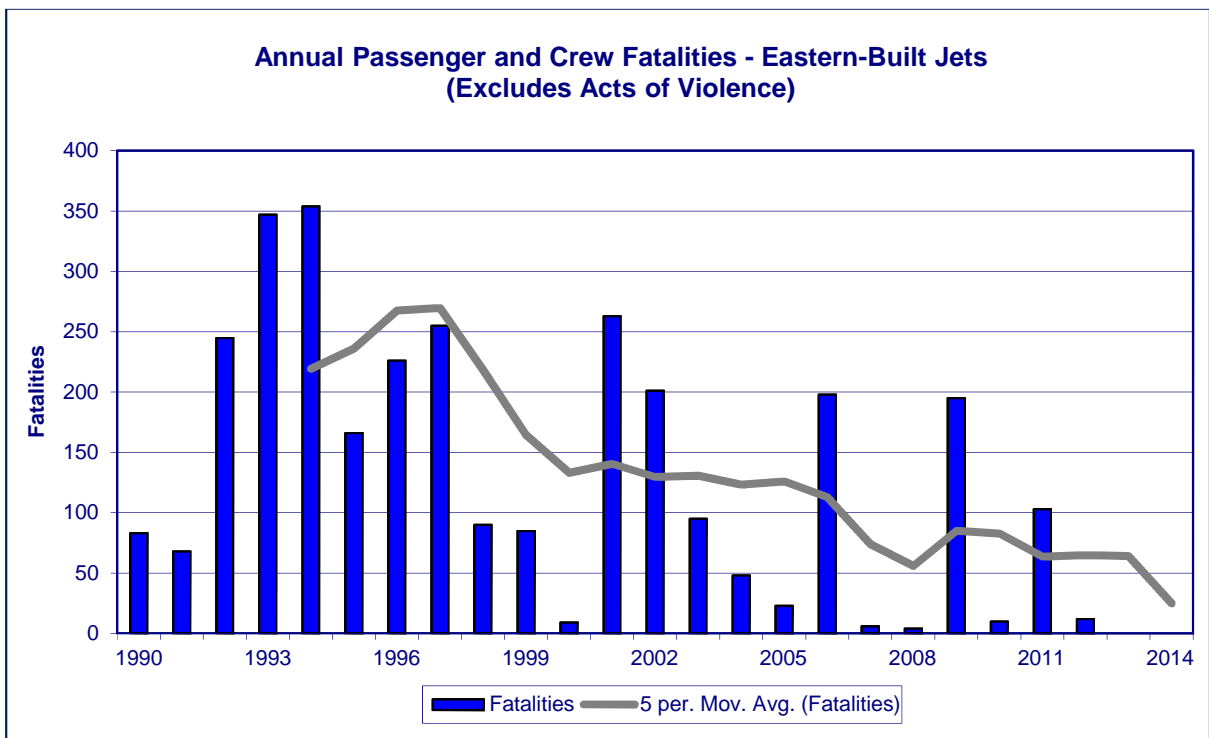
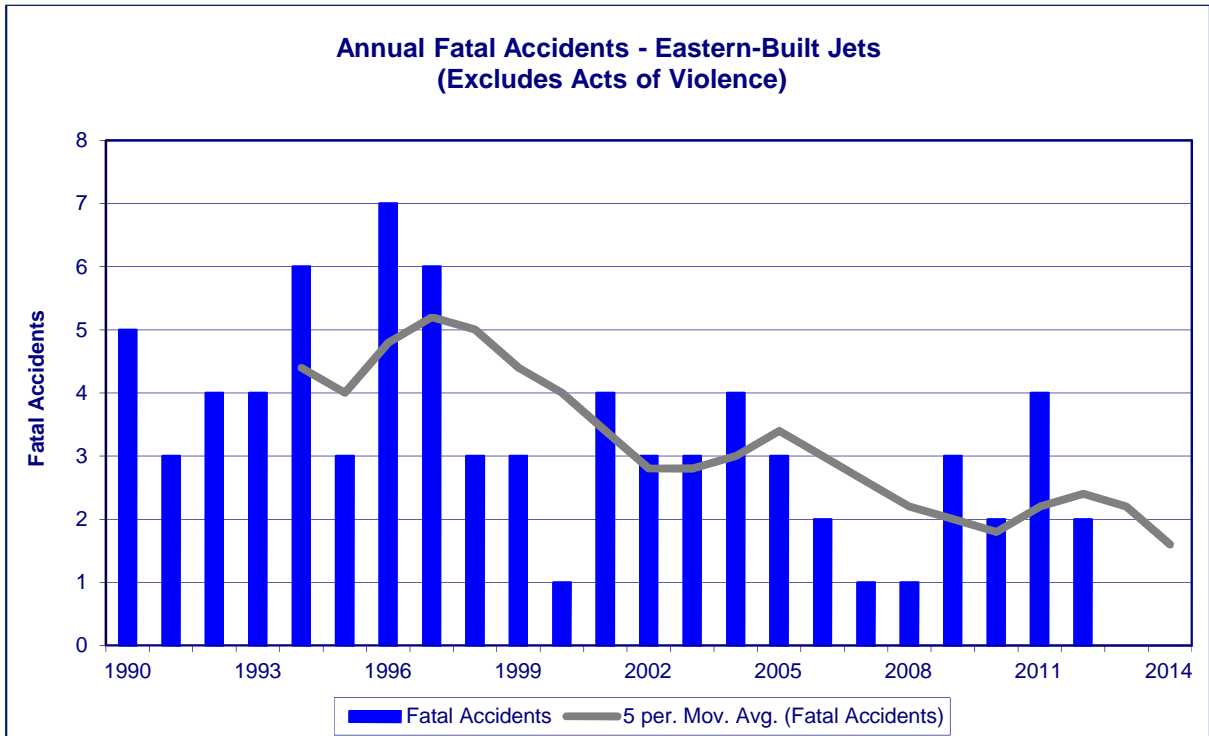
Period	1970 - 1979	1980 - 1989	1990 - 1999	2000 - 2009	2010 - 2014
Annual Average (All)	5.5	3.8	4.4	2.5	1.6
Passenger Accidents	4.7	3.5	3.0	1.3	10.8

Annual Fatalities (Eastern-Built Jets) – Last 10 Years

Year	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Fatalities (All)	23	198	6	4	195	10	103	12	0	0
Fatalities (Passenger)	0	188	6	0	161	2	79	0	0	0

Annual Fatalities (Eastern-Built Jets) – Decade Averages

Period	1970 - 1979	1980 - 1989	1990 - 1999	2000 - 2009	2010 - 2014
All Accidents	234.6	219.7	191.9	104.2	25.0
Passenger Accidents	207.0	200.5	155.9	84.5	16.2



Eastern-Built Turboprops

Eastern-built turboprops suffered five fatal accidents during 2014, four more than in 2013 but the same as the annual average for the current decade so far. The annual average for the previous decade (2000-2009) was 7.4.

A total of 76 passengers and crew died in these accidents. Again this is considerably higher than in 2013 when only five people were killed and some 25% worse than the annual average for the five year period 2010-2014.

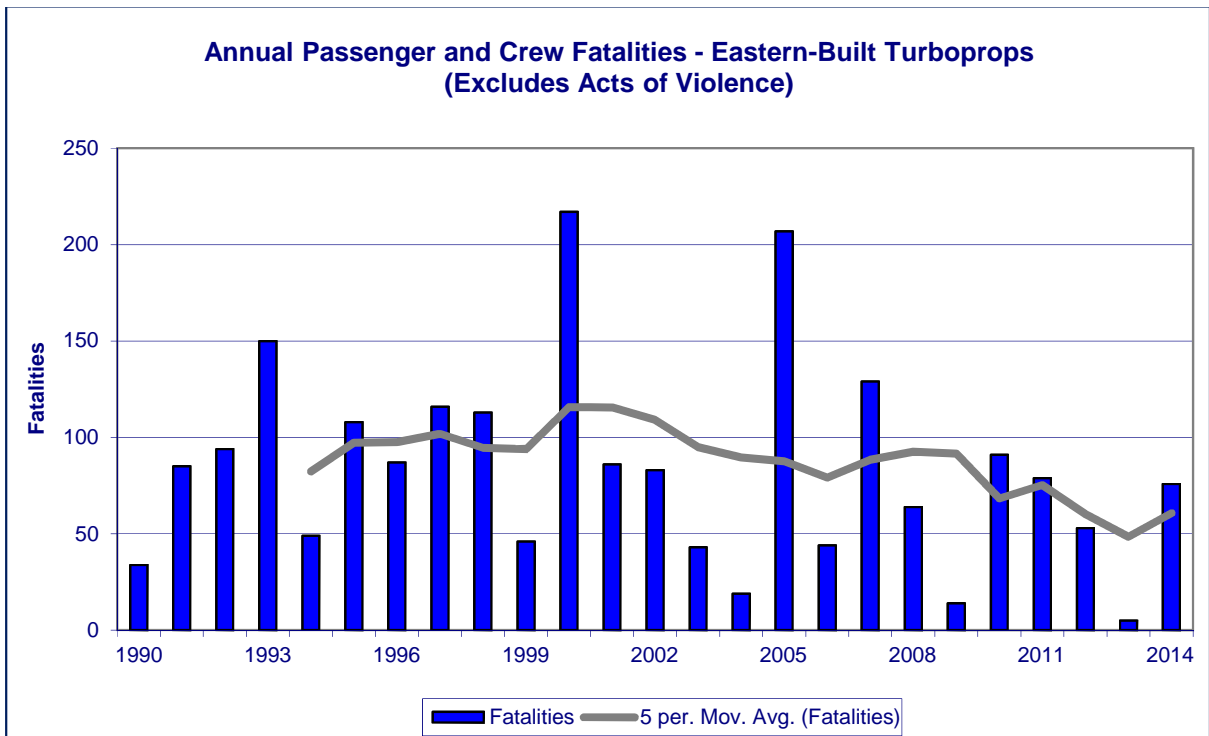
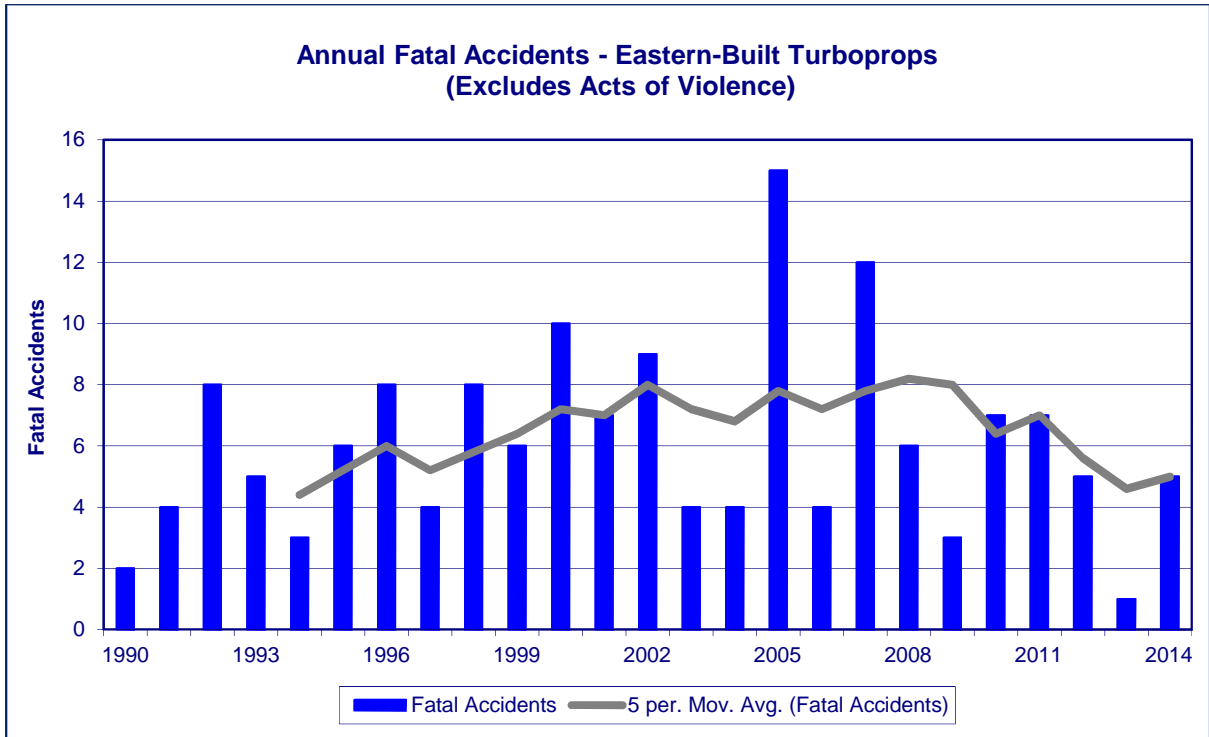
Some 47 passengers died in the two accidents during passenger flights. This is about 10% up on the current annual average of 43.2 but compares well to the averages for earlier decades.

Annual Fatal Accidents (Eastern-Built Turboprops) – Last Ten Years										
Year	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Fatal Accidents (All)	15	4	12	6	3	7	7	5	1	5
Fatal Accidents (Passengers)	7	2	4	2	0	5	4	3	1	2

Fatal Accidents (Eastern-Built Turboprops) – Decade Averages					
Period	1970 - 1979	1980 - 1989	1990 - 1999	2000 - 2009	2010 - 2014
Annual Average (All)	6.6	3.7	5.4	7.4	5.0
Passenger Accidents	4.4	2.6	2.4	3.4	3.0

Annual Fatalities (Eastern-Built Turboprops) – Last Ten Years										
Year	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Fatalities (All)	207	44	129	64	14	91	79	53	5	76
Fatalities (Passenger)	135	31	63	29	0	74	54	36	5	47

Annual Fatalities (Eastern-Built Turboprops) – Decade Averages					
Period	1970 - 1979	1980 - 1989	1990 - 1999	2000 - 2009	2010 - 2014
All Accidents	212.4	66.4	88.2	90.6	60.8
Passenger Accidents	173.6	49.7	55.2	58.6	43.2



Paul Hayes, London, 1 January, 2015 12:00

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