



JLT Aerospace



PLANE TALKING

JANUARY 2008

In this issue

Comment	1
Insurance Industry News	2
2007 Loss Analysis	3
End of Year Update	4
Capacity 2007	5
Airline Industry News	5
Overview 2007	6
Products Market 2007	9
Monthly Update	11

Editorial

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Comment

2007 into 2008

What has been paramount in 2007 was a desire from insurers for transition. This transition had an implied timescale and it also had direction. These facets were towards a harder pricing environment and that this would happen in 2008.

In this issue we have given our evaluation of our market in 2007 and the overall results are "grey". The message is that premiums fell as expected and claims costs increased but within the expected parameters.

The key observation is that airline premiums fell below airline claims in the calendar year. Other classes of aviation business have also seen decreasing premiums, e.g. products, but have not, as a class, fallen into a financial loss scenario.

Overall aviation insurers are broadly in profit but only just. As we move forward the message we are receiving from insurers is that they do not wish to tolerate further premium reductions. Markets have become increasingly selective and have trimmed their participations, the bottom of the cycle must be close.

[Back to top](#)

Year 2007 Concludes

Insurance Industry News

The end of any year is important for the aviation insurance industry and 2007 was of particular substance due to the prolonged expectation of change. Over the last six years the market has enjoyed a stretch of unprecedented levels of benevolent conditions both with the relatively low level of losses combined with the high level of premiums produced not simply by an insurance cycle but by the silver lining following 9/11.

Those involved in the fallout from the 9/11 losses deserved redress and have surely been riding a very powerful breaker ever since. Those who missed the loss have hitched a free ride on someone else's wave and as the once surging roller comes to a gentle stop without pitching anybody off, the contented surfers are now looking around at a much more crowded beach and deciding their next move.

It has to be said that with so many years of premium reductions, whatever the level of losses, something would have had to give at some time and as 2007 now clearly shows claims have finally exceeded premiums for the first time since 2001.

This unnatural six year "cycle" therefore must be close to coming to an end with the stark scenario that airline hull and liability losses stand at between US\$1.6 to US\$1.7 billion (calendar year 2007) and written premiums at around US\$1.5 billion (underwriting year 2007).

To say however that underwriters have been sitting on their hands is wrong. Any airline account that produced a poor net result has been redressed by increases in premium. And even where individual airlines may not have suffered losses, in areas of the world where there are deemed to be consistently poor safety standards, a universal stand for appropriate premium levels has been applied.

Nevertheless with ample available capacity of some 240% there will continue to be some hungry mouths to feed going forward into 2008.

[Back to top](#)

Fourth Quarter Update

Insurance Renewal Data

Comparing the First, Second, Third and Fourth quarter 2007 with the First, Second, Third and Fourth Quarter 2006 - % movement

	Average Fleet Value	Revenue Passenger Kilometres	Passengers	Lead Hull Rate	Lead Liability Rate	Lead Premium
1st Quarter 2007	+9%	+10%	+13%	-33%	-30%	-25%
2nd Quarter 2007	+16%	+16%	+16%	-29%	-31%	-19%
3rd Quarter 2007	+8%	+1%	+13%	-7%	-24%	-16%
4th Quarter 2007	+9%	+8%	+8%	-17%	-17%	-10%
The Year 2007	+10%	+5%	+10%	-18%	-18%	-12%

Major Loss Summary Fourth Quarter

	Number of Losses	Hulls	Liabilities (JLT Estimate)	Total
1st Quarter 2007	18	\$133,880,000	\$63,050,000	\$196,930,000
2nd Quarter 2007	18	\$159,320,000	\$95,450,000	\$254,770,000
3rd Quarter 2007	22	\$200,780,000	\$351,700,000	\$552,480,000
4th Quarter 2007	18	\$186,920,000	\$55,050,000	\$241,970,000
The Year 2007	76	\$680,900,000	\$565,250,000	\$1,246,150,000

Renewal activity is slight until April at which time British Airways renews. The outcome of this renewal should prove interesting following their recent loss and may provide insurers an opportunity to “set the scene” for the subsequent 2008 renewals.

[Back to top](#)

2007 Losses

The losses in 2007 are a story of contrasts. The year was always going to be looked upon with scrutiny from the insurance point of view as the premium base for airlines continued to diminish.

From the airline industry's point of view it was one of the best and safest years ever but underwriters figures tell a different story. The fact that 631 passengers were killed in revenue passenger flights during 2007 is an improving figure when measured against the increased number of passengers now flying. In percentage terms the fatality rate for western built jets is now almost at its lowest ever with 0.24 passengers killed per million carried.

However, we still had accumulated serious hull losses of around US\$660 million, the worst record for six years and US\$100 million more than 2006. Liabilities are more difficult to summarise as passenger and third party settlements remain inconsistent on a global basis, but an overall figure of US\$570 million remains the JLT estimate on the evidence so far. Therefore the minimum claims figure for hulls and liability stands at around US\$1.23 billion before adding on attritional losses and IBNR (incurred but not reported). When estimates for these items are added, a reasonably realistic figure for overall

losses must be in the region of US\$1.7 billion compared with annual airline premiums of approximately US\$1.5 billion at lead terms.

A breakdown of the year shows that the worst accidents involving passenger fatalities started on the 1st January with the Adam Air Boeing 737-400 that crashed into the sea in Indonesia killing all 96 passengers and six crew.

This event preceded a string of losses that led to a black mark being placed against Indonesian airlines and a banning of all Indonesian aircraft from EU countries. Out of a total of 593 fatalities that we have recorded in 2007, 117 were caused by Indonesian aircraft losses. The national flag carrier, Garuda, pushed up its relatively poor loss ratio to 70%, when 21 were killed in later incident.

In May, a Kenya Airways Boeing 737-800 crashed into a swamp immediately after take off with the loss of 105 passengers and nine crew. The worst accident of the year occurred in July when a TAM Airbus A320 overshot the runway on landing at Sao Paulo killing 181 passengers, six crew plus 12 people on the ground. There was also serious damage to a number of properties.

September produced a serious loss in Thailand when a One-Two-Go MD-82 overran the runway at Phuket killing 85 passengers and five crew.

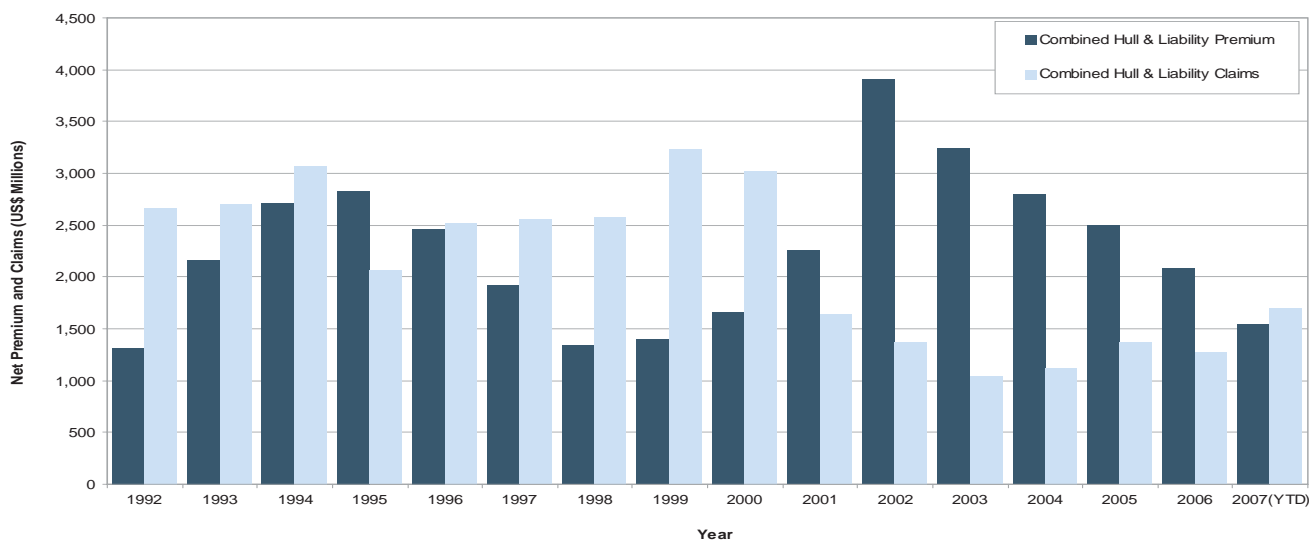
Some of the most expensive hull losses fortunately did not have a passenger involvement. The two most expensive being the Qatar Airways A300-600 that caught fire in a hangar in Abu Dhabi in April costing underwriters US\$54 million and an Iberia A340-600 which made a hard landing and overran the runway at Quito in November. This is estimated to cost US\$80 million to repair.

[Back to top](#)

10 Year Premium and Claims History for Airlines

Global Airline Hull and Liability Premium

(Premium based on London Lead Prices. Excluding Specific War Related Premium and Claims)



Claims figures based on reported losses and reserves, with an attritional estimate.

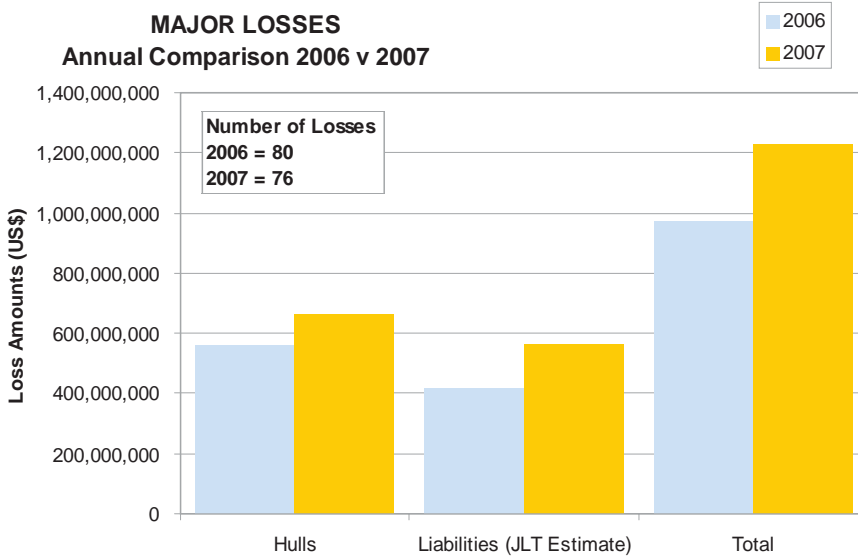
Claims indexed with a 6% claims inflation factor and premiums with a 3% inflation

There was one incident that has been excluded from these figures and involved a brand new Airbus A340-600 which was being ground tested by the manufacturer at its Toulouse base prior to delivery to a Middle East customer. The aircraft struck a concrete wall during testing and it is thought that the approximate value of the claim may reach US\$200m. Our calculations for the number of western built jet total losses for the year comes to 21 which is exactly the average since our records began in 1978. Out of these, seven resulted in fatalities with 576 passengers and crew being killed.

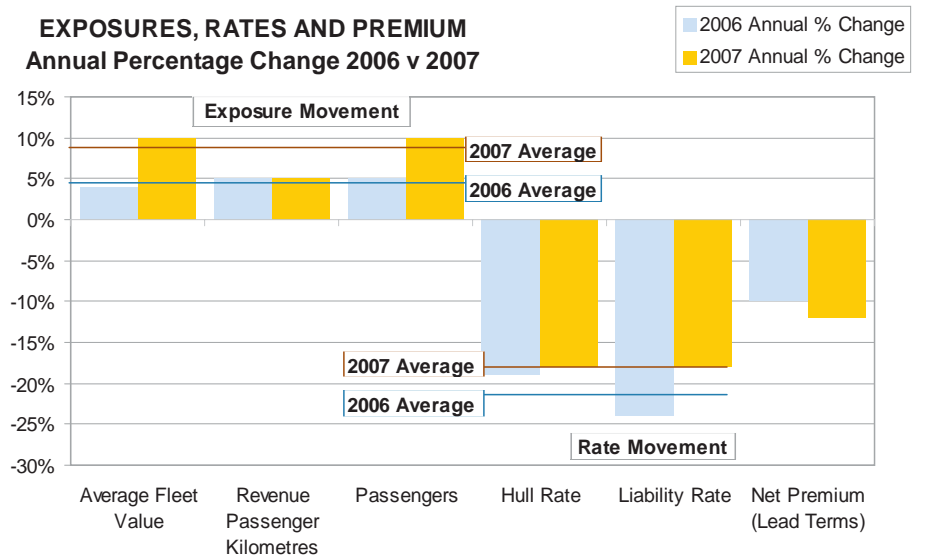
[Back to top](#)

End of Year Update

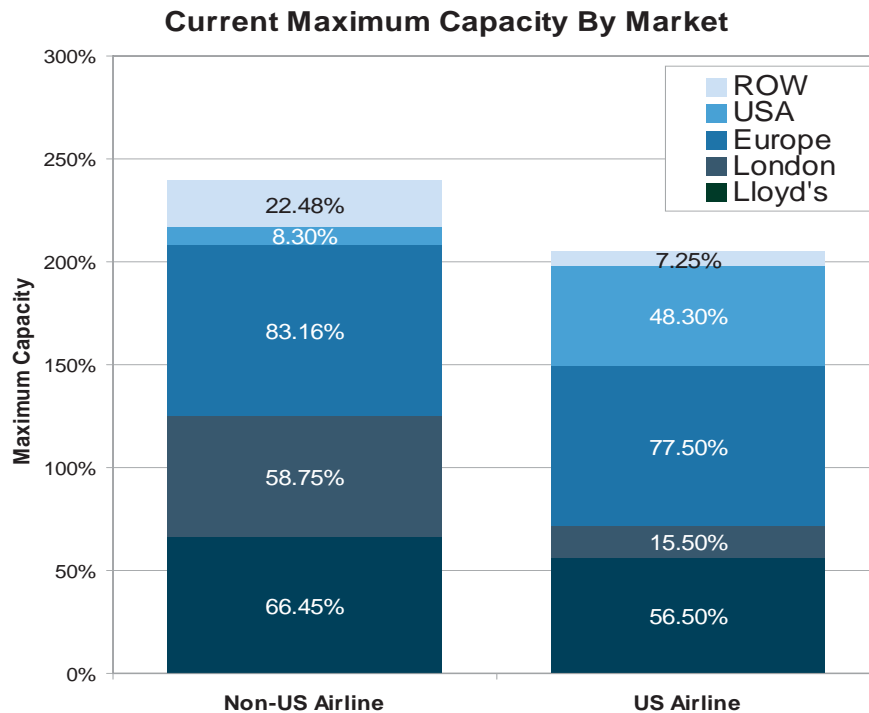
The graphs below demonstrate that the degree of change in rate movements has lessened in 2007 while exposures have shown greater increases than the already healthy increases during 2006. We expect both elements to level out to a certain degree in 2008.



EXPOSURES, RATES AND PREMIUM
Annual Percentage Change 2006 v 2007



[Back to top](#)



Capacity 2007

Capacity has remained stubbornly strong over the last 12 months and despite a worsening financial backdrop there have been additions to the market bringing the total maximum capacity to 239% on the basis of a Combined Single Limit (CSL) of US\$1.5bn.

2007 continued a strong trend for personnel movements in the market with a few significant names among the cast. The merger of Wellington and Catlin Syndicate prompted the departure of the former's lead roles, Robert Swinton and Noel Holloway. They turned up at the new Mitsui Sumitomo backed Lloyd's syndicate which was first announced in April 2007 and offered a maximum line of 7.5%.

In terms of maximum capacity there has been an increase against 2006 of 15% however we understand that in reality the typical capacity achieved would be less than this. At the same time, there has been little change in the shape of the capacity with regard to the relative split between capacity from Lloyds, London and the International markets.

Nevertheless as we have continually commented this maximum capacity has varied dramatically, particularly as the year 2007 drew to a close. The following markets have stood their ground and in a number of cases brokers may have had to complete a placement above lead terms. What this means is that while insurers have stopped short of withdrawing altogether it is clear that as soon as there is an upturn in the market, as expected in 2008, the availability of capacity will still be there to

benefit from any potential increasing premiums. A factor that will hinder and weaken the resolve for an upturn.

Arrivals and Departures

On Wednesday 30th January Marsh announced the appointment of Brian Duperreault as CEO, replacing Mike Cherkasky. Mr. Duperreault, the former CEO and Chairman of the Board of ACE, is a well respected industry veteran.

Airline Industry News

With the price of oil still frighteningly high it seems to be concentrating the minds of airlines as to how they will lay out their business plans for the future. We have already seen some smaller airlines merge or go into liquidation and now there is news of Delta entering formal talks with Northwest and/or United to form the biggest airline in the world.

Competition is also fiercer than ever with every continent in the world oversupplied by an influx of new operators. Market share will become much more difficult to sustain with expanding fleets heavily dependent on passenger demand. The US has its well publicised problems of recession looming and could have serious consequences particularly with such overcapacity in its passenger airline industry.

Worldwide passenger numbers are up on 2006 by 9% and fleet values by 10% with still more operators coming into the market. The frenzy has been supported and provisioned by the major manufacturers who have had another record year for orders and deliveries.

And the Winner Is...

Although Airbus delivered 453 aircraft against Boeings 441 the order race was eventually topped by Boeing despite the impressions given from both the Paris and Dubai Air Shows that Airbus had stolen the show. The end results totalled net orders of 1,341 for Airbus and 1,413 for Boeing on joint overall values of over US\$320 billion, the highest orderbook valuation ever.

This is the fifth year running that Airbus has beaten its rival in production terms and relied heavily on its narrow body family of aircraft with A320 sales representing 68% of its net orders against 60% for Boeing's 737. Although Airbus has a backlog of orders for the A330 of 355 units, the A340 has fallen badly out of favour. The future for medium to long range aircraft is for the high tech twin engined wide bodies and Boeing have now accumulated 817 orders for the 787 and Airbus having 320 for the similar sized A350. Unfortunately Boeing had to announce recently further delays to the first flight of the 787 which will not take place

until the end of the second quarter of 2008 with first deliveries pushed back to early 2009. Because of this delay both the B777 and the A330 are enjoying strong demand. Even the A380 which saw entry into service recently, notched up another 21 orders in 2007 which includes 15 from Emirates and takes the overall A380 backlog to 118 aircraft with 13 to be delivered by the end of 2008.

Apart from the A340 the other loser in this aggregation seems to be the passenger version of the next generation Boeing 747-8I series that received no new orders in the year at all.

IATA suggests that prospects for airlines in 2008 are looking markedly more gloomy and that 2007 was the peak of the cycle for profitability and traffic. This peak seems remarkably short when it is estimated that the industry was collectively in the red for an unusually long time, posting net losses every year from 2001 to 2006. In fact airlines have made more losses than profits since commercial aviation began.

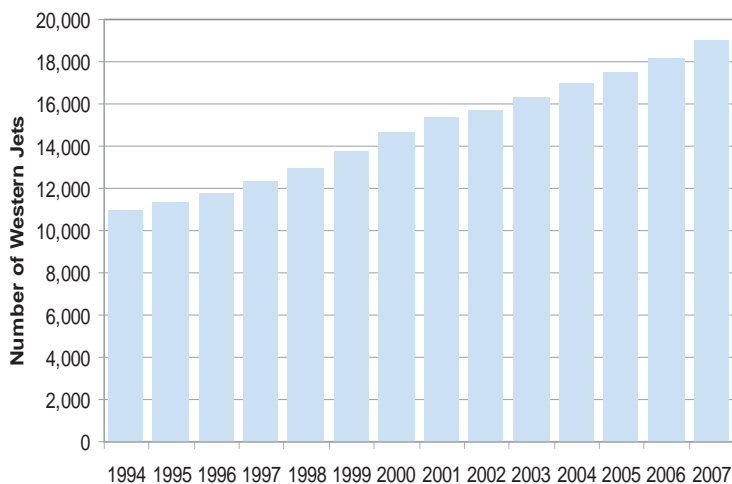
[Back to top](#)

2007 in Context

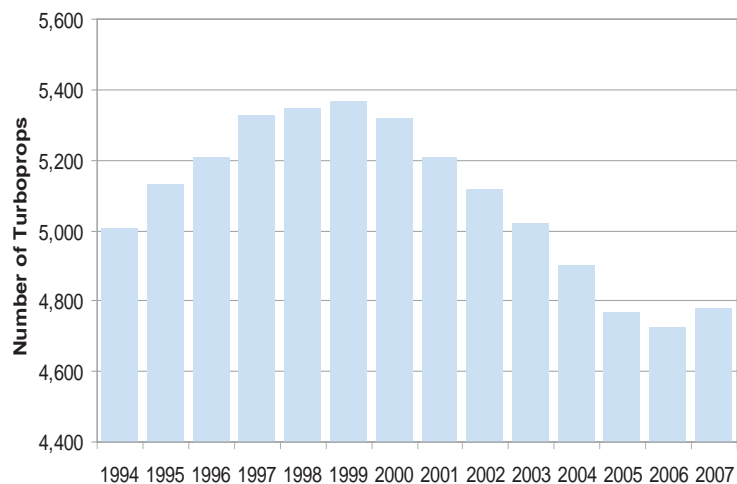
The following graphs provide an illustration of exposures and passenger airline incidents and fatalities in recent history. The number of Western built jets in service has consistently increased with a slight slowing in 2002. It is interesting to note that Western built turboprops markedly lost popularity after a peak in 1999 but made a comeback in 2007.

Safety has clearly improved in general but while there has been an improvement in safety records for western built aircraft there has been a marked deterioration for eastern built aircraft. This could to some extent, be attributed to the ageing fleet of eastern built aircraft in the world as poorer regions seek to survive using this old equipment that in many cases is no longer being manufactured.

Worldwide Aircraft in Service - Western Jets

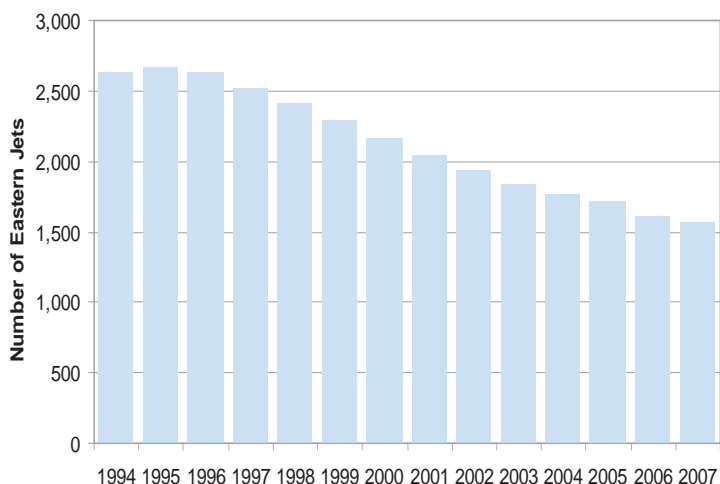


Worldwide Aircraft in Service - Western Turboprops

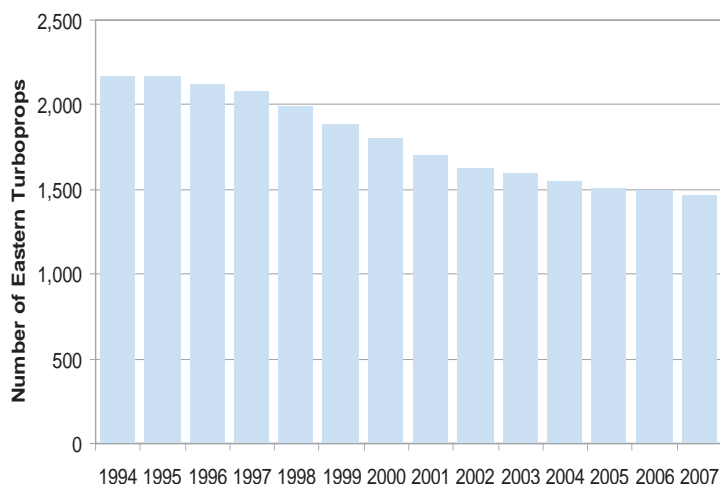


Source for Aircraft in Service: Ascend Worldwide

Worldwide Aircraft in Service - Eastern Jets

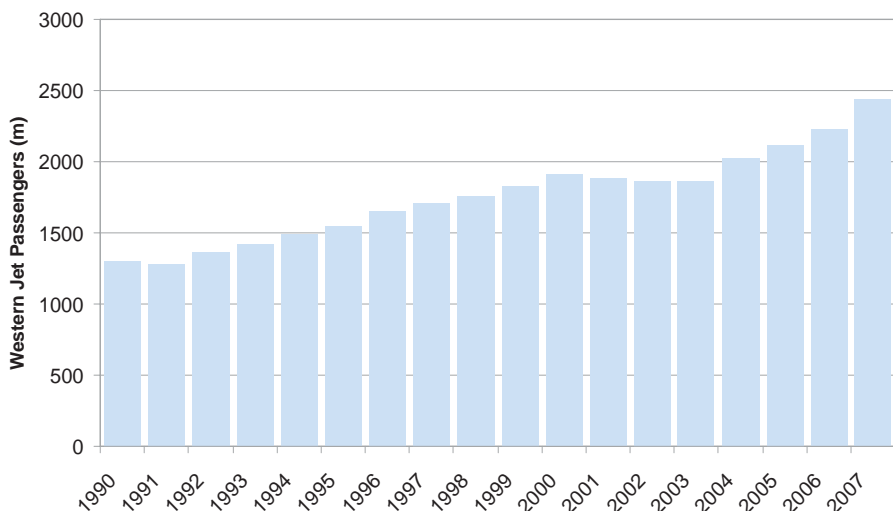


Worldwide Aircraft in Service - Eastern Turboprops

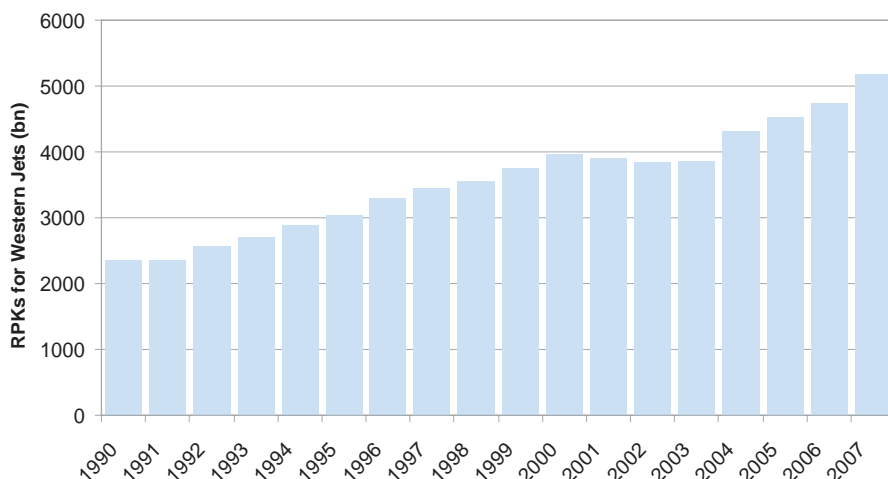


Source for Aircraft in Service: Ascend Worldwide

Estimated Revenue Passengers 1990 to 2007 (millions)

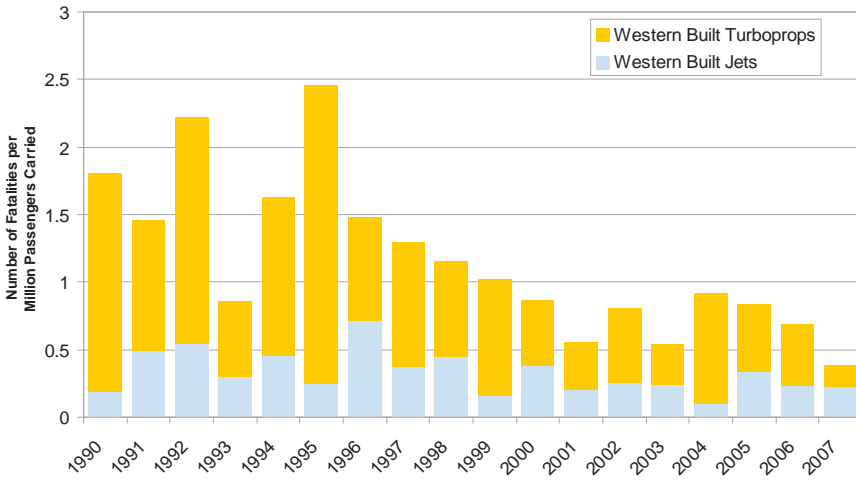


Estimated Revenue Passenger Kilometres (RPKs) 1990 to 2007 (billions)

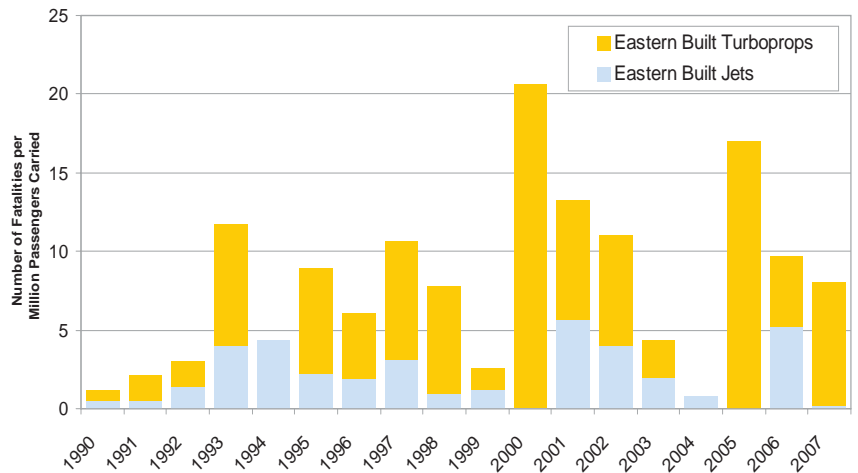


[Back to top](#)

Passenger Fatalities per Million Carried

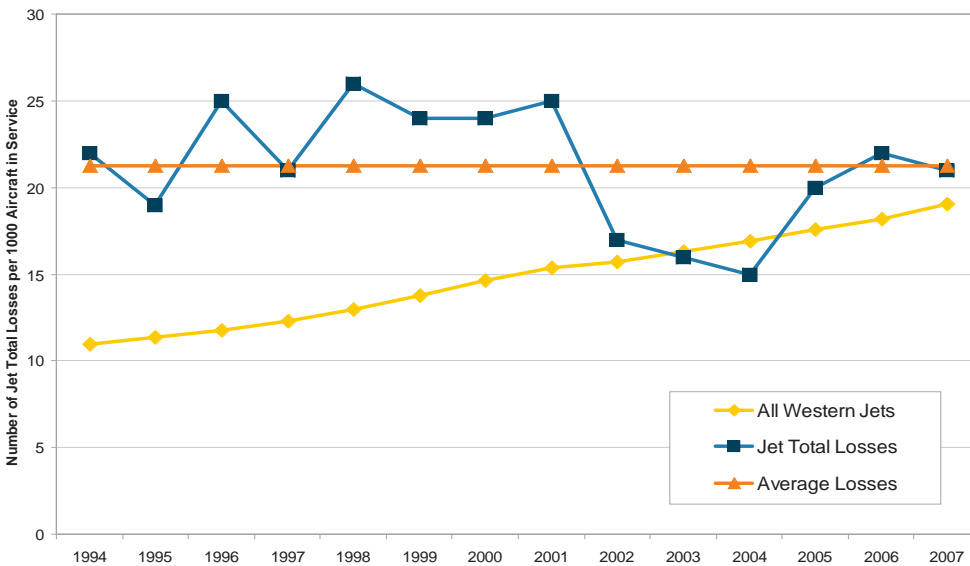


Passenger Fatalities per Million Carried



It is interesting to note that the scale automatically provided when preparing these graphs resulted in a ten fold difference between Eastern built aircraft and Western built aircraft.

Jet Total Losses / Aircraft in Service (000's)



[Back to top](#)

Source: 'Special Bulletin 2007' by Paul Hayes of Ascend Worldwide

Products Market 2007 - 2008

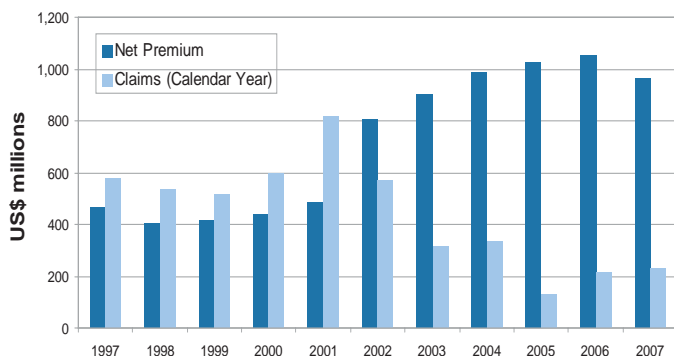
2007 saw the first year since 1997 with an over all average premium reduction in the products market, which could signify a turn in the products market from hard to soft. An analysis of a sample of the larger aerospace risks in the market has suggested an average rate reduction of 7.5%. Whilst this is an accurate representation of such risks it is clearly biased by the size of some of the headline accounts and an average for the class is more likely to be sitting at around a 10% reduction across 2007 as a whole.

As has become obvious the rating cycle of the products market is now quite distinct from that of the airline book, something that is likely to be highlighted this year with the products rates reducing as the airline rates look set to reach the bottom of their cycle.

Some products accounts have received minor rate increases but this is clearly the exception rather than the rule. Looking at the premium and claims history graph below it is clear the products book has experienced premium growth for several years prior to 2007, which combined with the reductions seen on some accounts in 2007 has highlighted the downward potential. Even some of the less desirable accounts in the market are achieving rate reductions despite their deteriorating loss records.

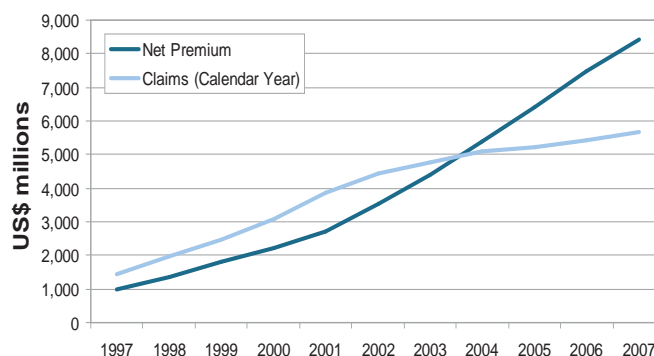
Another element affecting the premium income volume is that insureds have, in the last couple of years, opted to take on bigger self insured retentions and deductibles. This effect is two-fold. Firstly it directly removes premium from the market. Secondly, this change in retentions is evidence of good risk management which has helped to soften underwriters attitudes and provide further pressure to reduce rates which further reduces the total premium volume.

**Products Liability
10 Year Premium & Claims History**



Adding extra pressure to the ratings is the relatively low level of products losses over the last five years, reflecting the fortunes of the airline account with only a handful of significant losses in the same period, resulting in fewer losses to be subrogated to the products arena. The picture that is demonstrated in the premium and claims graph below shows the favourable result for product underwriters on a 10 year cumulative basis, noting of course that losses will develop further, narrowing the gap with cumulative premiums.

**Products Liability
Cumulative Premium & Claims**



That said there are a number of mitigating factors which will serve to sure up the products premium and give the market a shallower trough in its cycle.

Firstly certainly for the largest risks, it is a more technically written class with discipline enforced from nervous board members who don't favour the uncertainty of a long tail to their potential liabilities. This is an attitude seen even in some of the newer entrants to the market, as well as those more seasoned to the unpredictability of products liability and will likely encourage the allocation of capacity to other classes of the aviation portfolio as product rates decrease further.

Another point is that due to the long tail of products liability, the more prudent underwriters will have reserved heavily for the last few years despite the apparent benign loss period and so the picture of premium versus ultimate claims for underwriters is likely to look quite different to that depicted above for many in the market.

These long tail liabilities provide the fundamentals of the products market. Claims activity has been minimal in recent years and at this point the only significant outstanding loss that could end up in the lap of products insurers is the American Airlines 'Queens' loss of 2001 when the rudder snapped off the aircraft. While it is thought that Airbus may have allowed a reserve for this

loss, the French manufacturer claims it was pilot error whilst the airline insist that it is a products loss. It could be many years before the cause of this is decided and legal fees and inflation for this type of award will increase the ultimate claim size. An example of this is the Parker Hannifin loss which related to a component part, produced by the US manufacturer for a Silk Air Boeing 737 that subsequently crashed into a river in Indonesia in 1997. Finally settled in 2005 this was originally reserved at levels that escalated fifteen fold. Legal costs are often the cause of huge inflation when it comes to these drawn out claims such as the Textron Lycoming case which related to actual damages under US\$10m, the full award stipulated by the courts amounted to just under US\$100m.

Superimposed on the market forces discussed above are the changes afoot in the aerospace industry, notably including the high level of new aircraft.

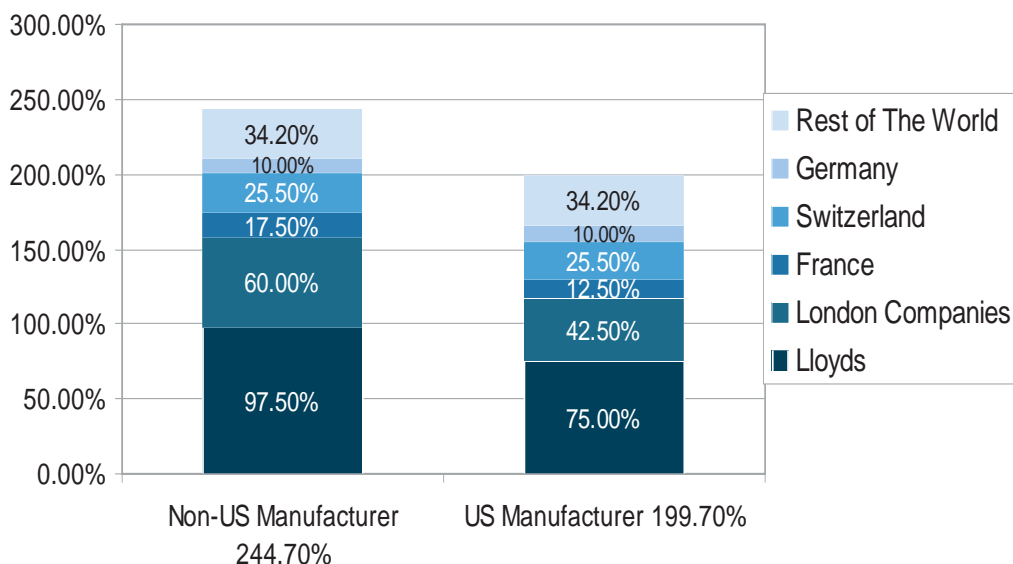
The introduction of new larger wide-bodied aircraft such as the A380 and the B747-800 present a significant increase to the potential catastrophic liability loss and will require increased CSL's on products liability policies, as they will in the airline book, whereas the huge growth of the Very Light Jet marketplace through the development of private jets such as the Eclipse 500, which already has 2500 aircraft on back order, presents a massive increase in exposures due to the number of units in circulation which will impact insurance proposals of numerous young product manufacturing companies.

There is also the unknown potential in respect of the 'all new' aircraft, again the A380 and B747-800 joining this classification, as well as the new B787 Dreamliner and the A350 all of which are utilising numerous new technologies ranging from new engines and large scale use of (lighter) composite materials that have been widely employed in the hulls of these aircraft. The length of wiring utilised for the A380 amounts to over 300 miles. While composite materials have been utilised for some years now, this has been in relatively modest amounts. One can only begin to imagine, for example, the cost of dealing with safety issues in respect of these new materials which may not be

identified until many years after the subject aircraft have been in service!

While they are confronted with all this new technology, products insurers do have the comfort of an increasingly regulated environment within which manufacturers have to operate. Standards are constantly being raised in testing their products and this should reflect positively on the level of failure of new products. Conversely, with more aircraft control being passed over to electronics, this may prove a triumph for air safety over all, but opens the gate to increased product liability issues with errors more easily pointing to the technology as opposed to human error. An example of this may be the BA 777 incident at Heathrow and we all await the results of this investigation.

Geographical Products Liability Capacity (based on CSL US\$1 billion)



Capacity in the products market has increased this year in response to the current favourable claims environment and the positive cashflow, however, capacity is generally tighter than that available for the airline market. Capacity has been generally more stable in this market than the ups and downs of the airline market.

2008 Products Outlook

2007 ended with the substantial EADS loss when an A340 due for delivery was destroyed during testing. While this is not a products liability loss it falls to the manufacturing sector (hull) and could cost the market in the region of US\$200m. The hull sector however is generally associated

[Back to top](#)

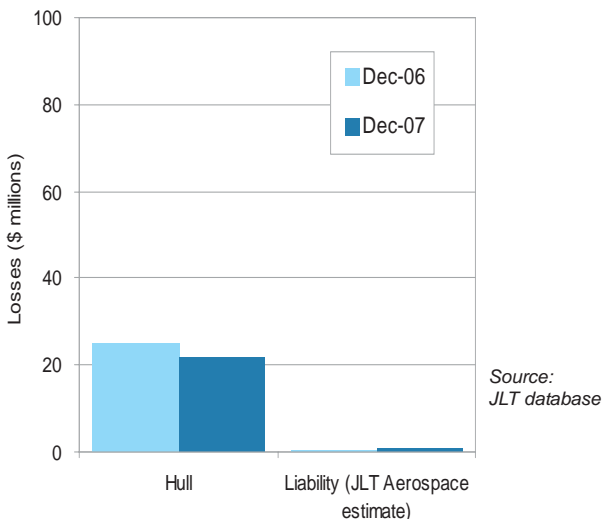
with the airline market but could affect insurers stance to rating in the products (and airline) marketplace.

Going forward we suggest that premiums could continue to reduce against a background of increased sales turnover, however the levels of reduction could be more modest than in 2007. Some of the increased turnover can be attributed to inflation and the weakness of the US Dollar but nevertheless there was a discernable reduction in the premium to turnover equation in 2007. While the airline insurance market is expected to harden during 2008 we would not expect this to filter through to any great extent to the products market for reasons already discussed. As we can see from the graphs the products market is profitable while the airline market is not.

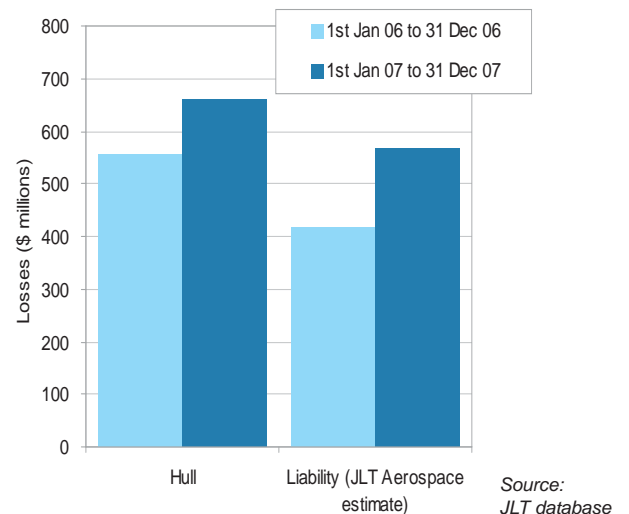
The details of the cause of the crash landing of the British Airways B777 at Heathrow, amazingly with no loss of life, are sketchy. There is much speculation surrounding this incident but it may well end up as a products liability loss, albeit limited due to the skill of the air crew.

Airline Monthly Update

December Losses



Losses for Year 2007



December Losses

12th Dec	Arkefly	B767-300 Reg PH-AHX	Chania Airport, Crete	No injuries	Insured value US\$4,000,000
The aircraft collided with a lamp post while taxiing causing a section of the outer wing to be detached..					
16th Dec	Air Wisconsin	CRJ-200 Reg N-4702W	Providence Airport, Rhode Island	No injuries	Reserve US\$2,750,000
Following a hard landing in snowy conditions the aircraft left the runway and ran into soft sloping ground which caused the left main undercarriage to collapse. There is further damage to the fuselage and wing. The overall damage is thought to be substantial.					
16th Dec	Southern Air	B747-200F Reg N-4702W	Cairo International Airport	No injuries	Reserve to be advised
While coming in for parking on the cargo ramp the aircraft continued to run forward and collided with the roof of a building. There was some structural damage to the lower nose section.					
24th Dec	Air Seychelles	B767-300 Reg S7-AHM	Paris-Charles De Gaulle	No injuries	Reserve US\$5,000,000
The aircraft collided with a fence causing considerable damage.					
30th Dec	TAROM	B737-300 Reg YR-BGC	Bucharest International Airport	No injuries	Insured value US\$10,000,000
During the take off run the aircraft collided with a vehicle causing it to veer off the main runway. The left main gear collapsed resulting in damage to the wing, engine and rear fuselage. At the time of the accident visibility was hampered by thick fog. Assessors have declared the aircraft a Constructive Total Loss.					

December Loss Summary

Hull Losses	Liability Losses (JLT Estimate)	Total
US\$	US\$	US\$
21,750,000	850,000	22,600,000

December Loss Information

As can be seen from the narrative on this month's losses, almost every incident involved hitting something solid at an airport. Statistics tell us that flying becomes safer as the years go by but these ground collisions seem to increase in number as airports become more crowded and aircraft get bigger. The Air Wisconsin mishap seems to be a landing mistake where the aircraft touched down about 1,000 feet from the threshold and although the left main undercarriage collapsed there were no injuries to the 31 passengers and three crew. By far the most serious accident was to the Tarom Boeing 737 at Bucharest when a maintenance vehicle was left by mistake on the main runway. This could well have resulted in a much more serious loss but fortunately there was no fire and all 120 passengers escaped unscathed.

[Back to top](#)

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