

Special Report

JLT AEROSPACE

JANUARY 2011

End of Year Review

Executive Summary 2010

- Premium volume generally maintained
- Reduced rates and rebound in exposures
- Capacity more than adequate but was applied increasingly sparingly towards the end of the year resulting from clearer risk selection and premium adequacy drivers
- Reinsurance market provided some relief by allowing small premium reductions but presented a solid resolve not to allow coverage creep
- Losses were plentiful but few were of very high profile and a continued general improvement in flight safety has been evident

Outlook 2011

- Increasing average exposures (hull +4%, liability +7%) have helped to suppress ambitions to increase rating levels, particularly for renewals without recent losses
- Rates were generally marginally down on expiring levels, particularly in respect of liability
- The combination of the foregoing has resulted in the market maintaining overall hull premium volumes at a level similar to 2009
- A number of plans are showing a marginal reduction in premium, suggesting similar expected behaviour from that seen in the 4th quarter of 2010, selective risk choice and tightening management of available capacity
- The potential impact of Solvency II will come more into focus as corporate capital models are refined and tuned to reflect more specifics of the various relevant business classes
- The application of technical risk models are likely to further develop both as a result of the implementation of Solvency II requirements and to assist in risk differentiation to provide some further technical support to the underwriting process

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2010 Airline News Review

2010 in Brief

January saw a number of airlines run into financial trouble with many having to make cutbacks to stay operating.

Operators continued to struggle in **February**, some were forced to cease operations, whilst others survived only by bail out from their governments.

March showed positive indications of improvement in the sector with growth in traffic numbers and manufacturer production increases.

In **April** the airline sector took a hit when European airspace closed due to the eruption of the Eyjafjöll volcano in Iceland.

May saw United and Continental Airlines agree to merge, creating the world's biggest carrier.

Emirates announced an order for 32 new Airbus A380's in **June**, the first for the superjumbo in 2010.

Farnborough air show took place in **July**, a total of 814 new aircraft orders were placed.

IATA, in **August**, reported that premium passengers numbers in the international travel market were up over 16%, while economy passenger numbers were up 9.5%.

September saw the biggest airline closure of the year in Mexicana, closing due to financial difficulties.

In **October** the airline industry appeared to be turning a corner with some carriers posting profit for the first time that year.

A reminder of the threat of terrorism using aircraft was brought to the forefront in **November** when several bombs were found on a cargo plane bound for the US.

In **December** IATA predicted an overall industry profit of around USD15 billion for 2010, although warning that the threat of overcapacity and high costs could catch up with airlines in 2011.

Comment

The prediction this time last year from IATA was for a loss to the airline industry of USD5.5 billion. Remarkably, this has turned into an estimated profit of USD15 billion. This surprising turnaround follows years of losses and reflects a much more disciplined industry with increasing revenues and vigorous cost controls.

This said, a number of outside influences have tested the airlines during 2010 with the Icelandic volcano in April grounding a huge part of Europe for weeks.

Then at the Christmas holiday period a sudden and severe snowstorm brought a number of European airports to a standstill, including London Heathrow and Paris Charles de Gaulle, causing thousands of cancellations and resulting in public outrage.

It was predictable that the Far East, especially China, and the Middle East led the charge in the recovery, with Europe and the US struggling for a respectable balance sheet. Extra hidden fees have, for example, sustained the US operators and contributed additional billions to their finances.

The beneficiaries of this upturn were the two main aircraft manufacturers, Airbus and Boeing, and as such are now predicting upping their output to meet this demand.

The number of airlines is now smaller thanks to a wave of liquidations and consolidations capped with the mega mergers between United and Continental and British Airways and Iberia.

Outlook 2011

IATA is predicting a profit for airlines in the region of USD9 billion as world economies continue to recover. A stark warning however surrounds the price of oil which remained stable during most of 2010, but is now heading towards USD100 per barrel. IATA point out that jet

fuel prices at the close of 2010 were more than one fifth higher than a year earlier and if those prices prevail for 2011 the industry's fuel bill will have risen by USD22 billion. Last year airlines spent USD139 billion on fuel, accounting for 26% of operating expenses.

There is an element that suggests high oil prices actually benefit airlines by forcing capacity discipline and the retirement of older, fuel-guzzling aircraft. This may motivate airline management to restructure the industry, making it leaner and more profitable.

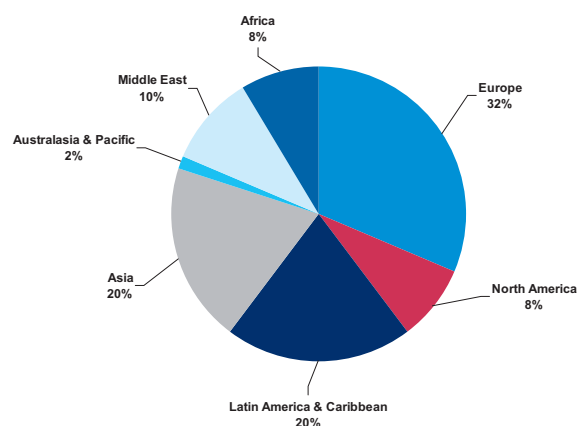
Start-ups

2010 saw an increase in the number of start-up airlines. Perhaps reflecting the feeling that the airline sector is slowly returning to much better health than has been the case over the last few years.

Reviewing the start-up data shows a total of 59 new carriers for last year, a noticeable increase when compared to the figure of 28 for 2009. North America, Europe, Australasian and Pacific regions all saw fewer new start-ups than in 2009. In contrast to this Asia, Middle East and Latin American regions all saw increases, with the later seeing the largest.

The shortest lived start-up of 2010 and perhaps ever was Varsity Express, UK, who operated only 11 scheduled flights over a space of one week in March before ending in a flurry of media controversy.

Geographical Split of Start-ups

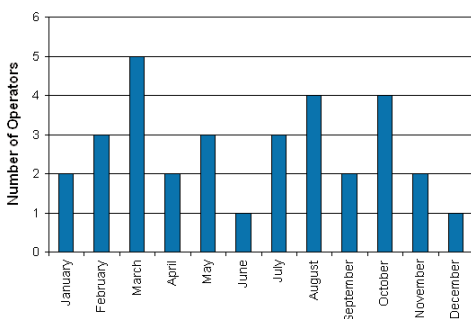


2010 Airline News Review

Closures

The number of recorded closures for 2010 was 32, this figure is marginally lower than that for 2009. Europe accounted for 66% of the airlines that closed, although this may not come as a surprise considering the challenges it faced in April when much of its airspace was forced to close due to the Icelandic volcanic ash clouds.

Ceased Airline Operators 2010



though there were a number of cancellations making the net figures Airbus 574 v Boeing 530.

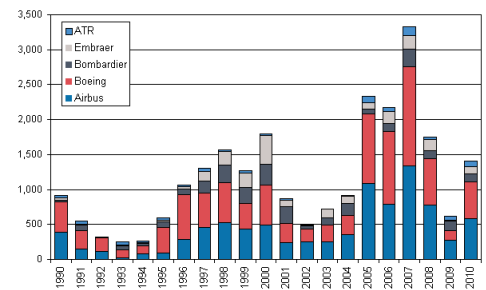
Looking at the geographic split of new orders, North America is the winner by far with all regions except Europe and Africa showing an increase in orders over the preceding year.

As a result of production levels staying high, or in some cases, increasing, the numbers on backlog have declined for Airbus and Embraer though Boeing's have increased slightly. Total numbers awaiting delivery are still high and further production rate increases are on the cards.

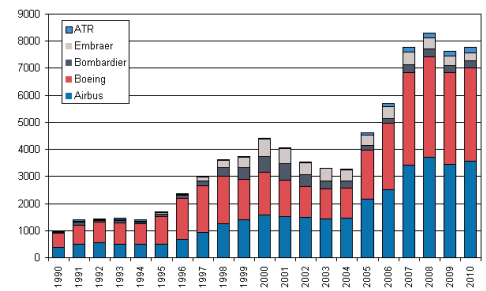
Of the regionals, we show Bombardier as booking marginally more orders than Embraer though response to the C-Series must be a concern. Maybe it's still 'early days'. Despite Bombardier's triumph in the market, the numbers ordered with Bombardier are actually less than the preceding three years though both Embraer and ATR showed an increase in orders over 2009. All this goes to show that the regional market is very unsettled with little growth in developed markets yet still great potential in the tiger economies which are currently focussed on the international and mainline routes.

In addition to the established manufacturers, Mitsubishi announced its first MRJ Regional Jet customer from the US and Sukhoi have made some forays into the market place for its Superjet though the big breakthrough is still awaited.

Net Commercial Aircraft Orders



Commercial Aircraft Orders Backlog



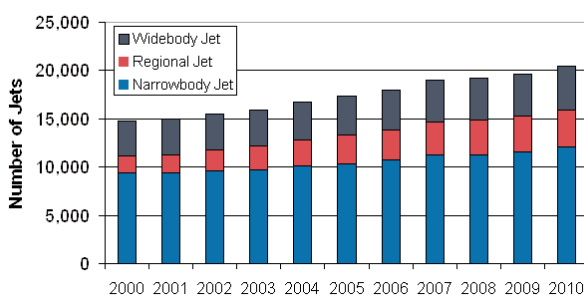
Orders

Judging by the order books of Airbus and Boeing, the world's economies are showing a major step in the right direction. Both manufacturers recorded a big increase in orders over 2009 though still below the figures of each individual year since 2005.

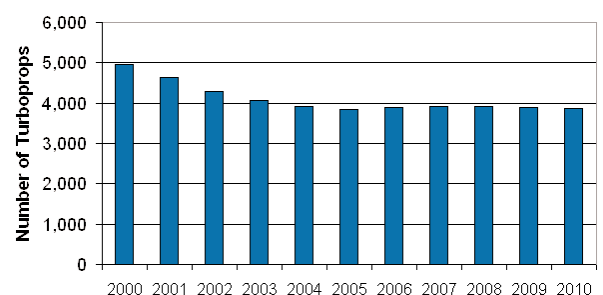
Competitively, Airbus was the winner in the major airliner race, beating Boeing in new booked orders of 644 over 625

2010 Fleet Size Change

Western Jet Fleet Size



Western Passenger Turboprop Fleet Size



2010 Insurance Industry

Airlines Market

Without doubt the biggest change in the landscape of the airline insurance market in 2010 was the unprecedented level of accounts moving between broking houses as airlines seek value and service in an increasingly tough financial environment.

Further airline information/analysis can be found from page 6 onwards.

Capacity

Leaving 2009 we were wondering when capacity in the aviation sector would stop growing and start shrinking, the answer was 2010. Most of 2010 has been extremely stable but as it was drawing to a close a few insurers started to trim back their lines, the question now is if this trend will continue into 2011 and could we see some capacity dropping out all together?

We calculate a typical capacity of around 240% for non-US airline business with a liability CSL of US\$1.5B, although the realistic availability of

competitive capacity for any given risk can be far lower than this.

Looking at underwriter ratings Standard and Poor's and AM Best's have maintained their confidence in the market with scarce changes to ratings. Where financial strength rating changes have occurred they have tended to be positive rather than negative.

In the news, aviation premium written in Lloyd's looks set to decline in 2011, as managing agents are rumored to be planning to rein in their aviation underwriters.

All these factors look to an interesting 2011 for the Aviation Market.

Airports and Products Liability

Excess capacity ensured that competition remained intense, airports, non-critical products, and clients with good loss records have seen their premiums fall for another year. There have been no capacity withdrawals and many markets have sought to increase

their shares on a part of their aviation portfolio that remains profitable.

On ground handlers and critical products there is also no shortage of capacity and subject to loss records, brokers have managed to push through more modest reductions.

Verticalisation remains common place as underwriters compete for market share and this has only added to the good news for insurance buyers.

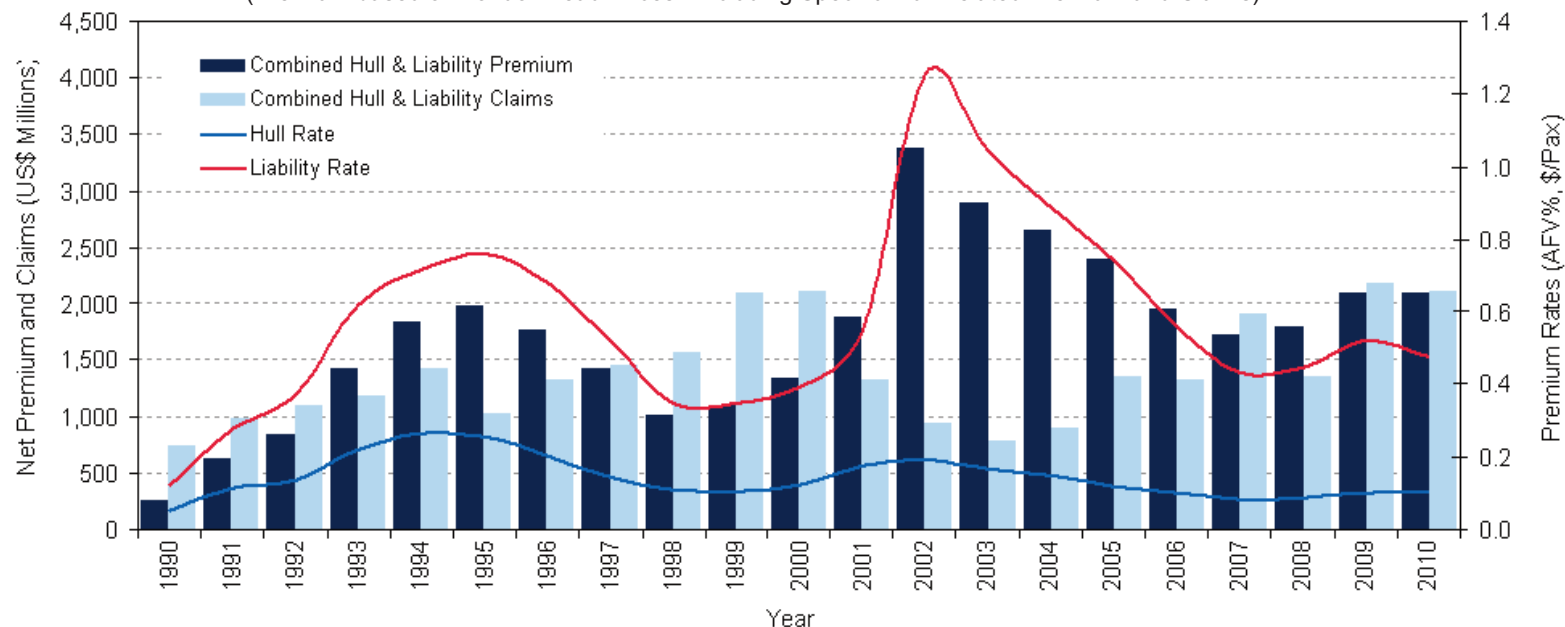
As a result of some headline losses, we have seen an increased focus on accounts that have hangar-keeper and spares exposures.

Looking ahead there is no sign of diminishing capacity for the 2011 year and in the absence of a market changing event the market will remain soft in the short term.

The move to identify best practice procedure for ground handlers will eventually result in a more technical rating model and we may see this start to evolve later in the year.

Premium and Claims History

Global Airline Hull and Liability Premium Rates and Claims
(Premium based on London Lead Prices. Excluding Specific War Related Premium and Claims)



2010 Insurance Industry

Excess AVN52

Since 9/11 the Excess AVN52 market has remained claims free.

Premium pricing continues to soften as capacity in the sector remains strong with the only pressure arising when limits required are significantly above the USD1B level.

Once again premium levels overall have fallen - our estimate is by 15 to 20% against 2009 - despite rises in traffic / exposures.

Whilst the price is very much capacity driven, any significant claim to the sector will have extreme effects on premiums and conditions.

Therefore, unless the loss occurs, we foresee that over-capacity in the sector will remain and therefore premiums will continue under pressure.

Hull War

Contrary to most early expectations for 2010 the rating basis for the Airline Hull War sector continues to be significantly eroded.

Hull War has always been reactive to claims and the absence of losses for some years has meant that there has been little pressure to increase the fragile premium base.

Even though there is no appreciable active competition between insurers we estimate that rates fell between 10 and 15% and increases in fleet values have been insufficient to stem the fall in overall premium.

Rates are approaching historic lows but we can not foresee any change in the current trend in the near future unless claims are incurred.

Reinsurance

2010 Hull and Liability aviation losses reached approx USD2.15B, exceeding

Gross premiums written in the same period, making it the 3rd highest amount in the history of commercial aviation.

As last year, many of these losses were retained by insurers and were not recoverable from reinsurers.

With this in mind the renewal season in January for Airline Excess of Loss saw reductions of up to 10%, dependent on loss record and exposure movement. Capacity however remained unchanged despite the reduced premium base.

The General Aviation portfolio remained unchanged, attracting as before or reduced premiums on Excess of Loss contracts at renewal. Again there was plentiful capacity for the class of business.

Retro Excess of Loss prices have renewed flat, on an Industry Loss Warranty basis. UNL programmes have seen movement reflective of the relevant change in aggregate exposures both up and down. Yet again capacity abounds and this has maintained downward pressure on prices.

Space

The Space market achieved good underwriting results again in 2010. Market premium amounted to approximately USD650M against claims of around USD370M. This represents a run of eight profitable years out of the past nine, broken only by a relatively small market loss in 2007.

Capacity grew marginally year on year with no significant entries or exits. Overall the market was theoretically able to provide up to USD825M for a single launch event, up by USD15M from 2009. Whilst Chinese, Russian and Indian markets have long been involved in their domestic risks, they are beginning to show more consistent interest in underwriting international business.

Launch and first year in-orbit premium pricing has continued to come under downward pressure fuelled by good results and buoyant capacity. Rates for the most attractive risks dipped into single digits for the first time since the late 1990's. The fall in pricing has been gradual and measured with underwriting discipline largely maintained throughout the year. Against the backdrop of a declining premium base, underwriters are looking increasingly poised to react quickly to any adverse experience. After an almost pristine year, the largest ever single satellite loss occurred in November, resulting in a claim of USD340M. Nevertheless, with the final launches of the year going off successfully, any anxieties appear to have been quelled, at least for the moment.

Competition for in-orbit risks has been keen but with double-digit percentage reductions throughout 2010, insurers ended the year expressing resolve to defend their remaining rating base. Underwriting results were again excellent with no significant losses in the past year; however, premium volumes have been eroded to a level where this sector can also be expected to quickly hike premium rates in the event of losses.

In summary, 2010 was another good year for the Space market. If hardware reliability continues on its current trend, insurers can be expected to further reduce pricing levels in 2011. Inevitably, the scope and pace of price reductions will also decline as a growing sense of volatility emerges across the market. As new or re-configured launch systems, satellite platforms and payload designs come to market, insurers will face the additional challenge of assessing and achieving appropriate differentiation in pricing.

2010 Airline Renewal Analysis

Exposures

The overall picture across the year was a 4% increase in AFV and 7% increase in forecast passenger numbers.

Throughout 2010 there were signs of recovery in the major economies of the world, this is reflected in improved passenger numbers and as a result has given airlines confidence to predict further growth for the next 12 months.

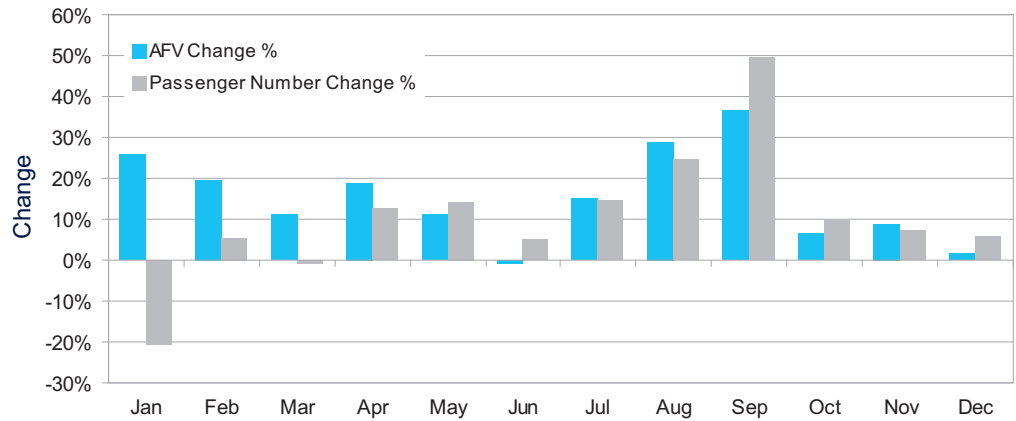
Premiums

On a like for like basis premiums for the majority of the year are marginally up. December is the only month showing negative movement, against the positive trend seen throughout the rest of the year. It is December which sees the majority of major airlines renewing, and so holds a large influence over the full year average.

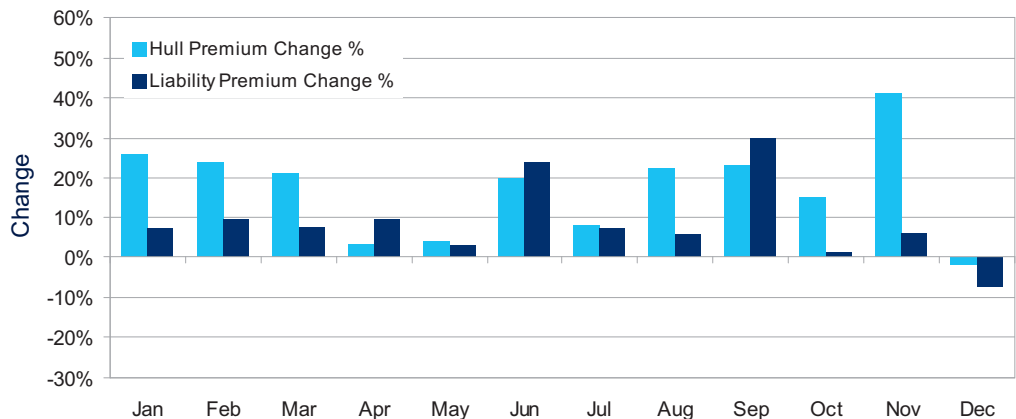
Rates

2010 has seen a series of major hull losses all in excess of USD100M, these being the Saudi spares loss, Qantas A380, UPS B747, and Afriqiyah A330. This is in contrast to 2009 where the largest losses, Air France and Colgan, were heavily weighted to the liability side. Both of these factors have resulted in creating a mismatch between the rate changes seen on hull and liabilities. Rates across the first 3 quarters were trending downwards but the losses mentioned above, the reining in of line sizes by underwriters and the increase in selectivity have all resulted in the 4th quarter becoming noticeably harder.

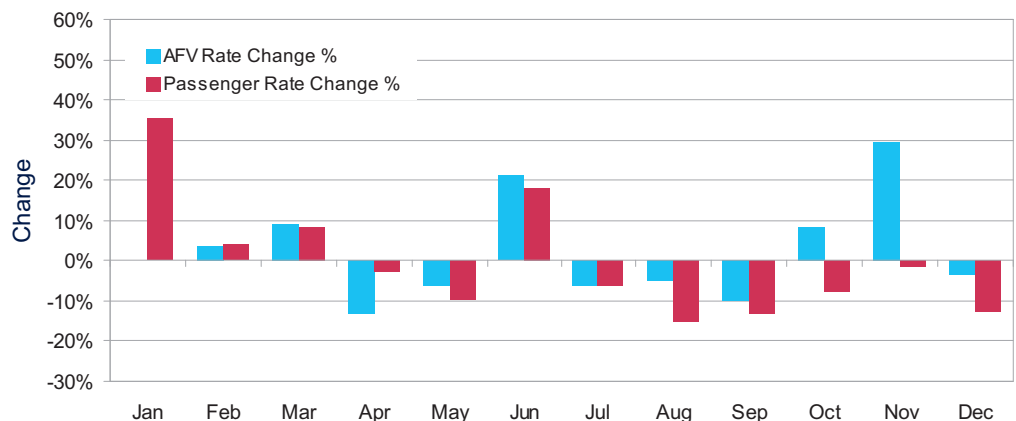
Exposure Change Over Prior Year



Premium Change Over Prior Year



Rate Change Over Prior Year



2011 Outlook

Losses - Historically High Losses put Further Pressure on the Market

Once again the losses experienced in the 2010 calendar year exceed the premium written in the period. Although fractionally below 2009 this is still at historically high levels, a fact that will not be ignored by capacity providers. Perhaps more importantly the trend over a longer period is no better. The balance on an underwriting year basis is virtually break even over the last 5 complete years.

Capacity - Selectivity Increases and Lines Reduced

Often an indicator of change upon the horizon, selectivity became the key factor for renewing airlines at the end of 2010 and we see this trend continuing in 2011.

In Q4 2010 underwriters started to rein in their line sizes and become increasingly selective on which airlines they would support and at what price. This resulted in huge variation behind the average changes recorded and airlines with adverse loss records being detrimentally affected by increased rates.

The increase in selectivity has been marked and it is expected that the market will continue to offer a wide variation in renewal terms for airlines based on many factors, size, loss record, growth and detailed exposure information being the key points.

It is worth noting here that the reduction of line size can have a greater effect on the market than the headline grabbing withdrawal from the market. If an established large underwriter halves their line, they are likely doing this

because they believe rating is not adequate and therefore are also likely to demand rate increases on their remaining line. This will impact large placements more significantly than a simple withdrawal of a smaller underwriter despite a comparable reduction in overall capacity.

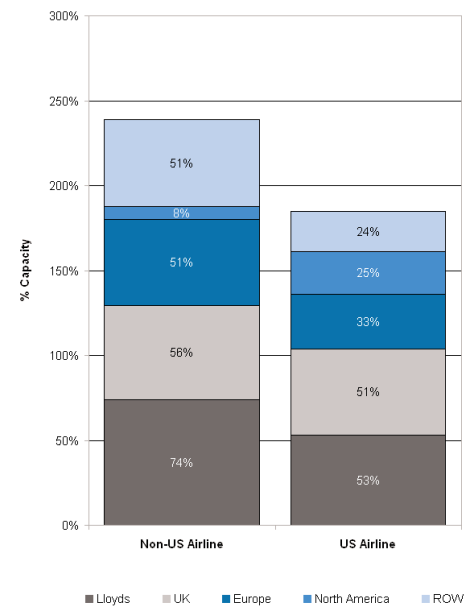
Marketing - Verticalisation Reduces

Along with the increase in selectivity comes reduced verticalisation. There is currently great pressure from following markets to minimise their discount from the lead price, and in certain circumstances it has been necessary to offer paid up terms to complete placements.

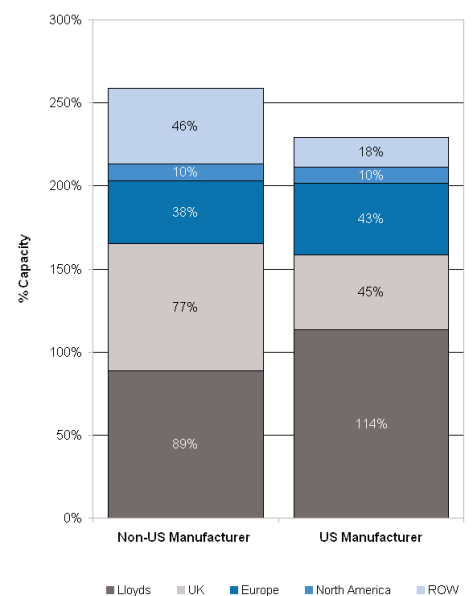
Market Cycle - Now back to the trend?

The year 2009 surprised with a relaxed ratings stance. In comparison 2010 also surprised, however with the opposite effect, seeing average rates holding up more than expected. This perhaps indicates signs that the market is now heading back to the trend that the 'normal' underwriting cycle would suggest.

Typical Airline Insurance Capacity, January 2011 (Combined Single Limit US\$1.5bn)



Typical Products Liability Insurance Capacity, January 2011 (Combined Single Limit US\$1bn)



Losses 2010

Losses Comparison

2010

- 18 fatal losses
- 124 non-fatal losses
- 42 total losses
- USD1.2141B hull losses
- 639 fatalities
- USD396.3M estimated liability losses

2009

- 22 fatal losses
- 133 non-fatal losses
- 41 total losses
- USD773.6M hull losses
- 453 fatalities
- USD1.1292B estimated liability losses

Notes:

The comparison is for Western Aircraft only

Figures are major losses and there are still an unknown number of minor and attritional losses to be included

The JLT liability estimates are provided merely as a guide.

10 Most Expensive Incurred Losses

Date of Loss	Operator	Aircraft	Location
25th January	Ethiopian Airlines	B737	Off Beirut
12th May	Afriqiyah Airways	A330	Tripoli
22nd May	Air India Express	B737	Mangalore
10th June	Saudi Arabian Airlines	Spares	Jeddah
28th July	AirBlue	A321	Near Islamabad
16th August	Aires	B737	San Andres
24th August	Henan	E-190	Yichun City
3rd September	United Parcel Service	B747	Dubai
4th November	Aerocaribbean	ATR72	Guasimal
4th November	Qantas	A380	Out of Singapore

Losses 2010

Losses Analysis

When reflecting on the past year, sometimes one or two specific accidents or incidents come to mind as a marker for the year yet 2010, from this distance, seems remarkably 'run of the mill'. Certainly, if you were to talk to the man in the street and many in the aviation industry, there are few accidents in 2010 that would come immediately to mind.

It is surprising then, to add up the numbers and realise we have had yet another poor year in terms of safety for passengers and claims for the industry.

In comparison with the previous year, 2010 was marked with an increase in the number of passenger fatalities yet a reduction in the amount of liability claims. The number of total losses and fatal losses were broadly similar to 2009 yet the value of hull losses was significantly more bringing total major claims to around USD 1.6B for the year. Of course there are many minor or attritional losses which still need to be taken into consideration.

Two of the year's biggest losses have resulted from no flight involvement; a big snowstorm in Washington DC during February brought the hangar roof down on a number of expensive business jets and a warehouse fire in Saudi Arabia during June resulted in a large claim for loss of spares.

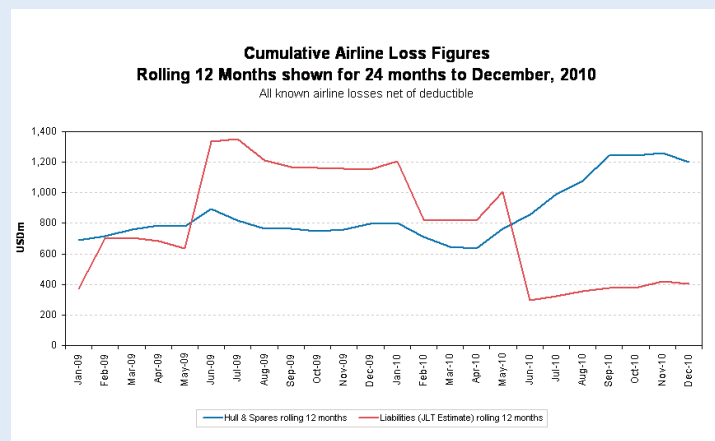
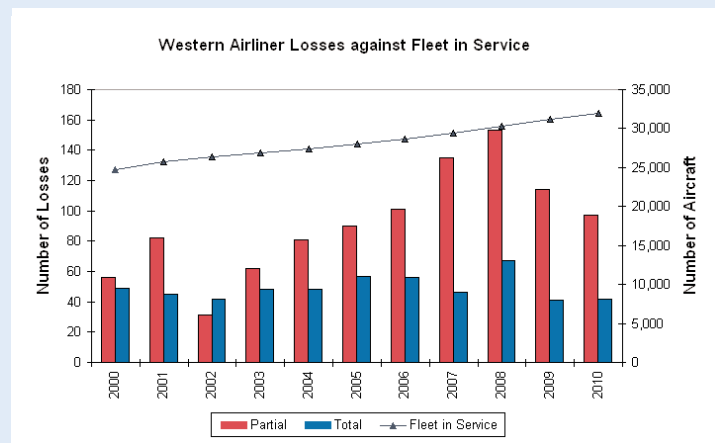
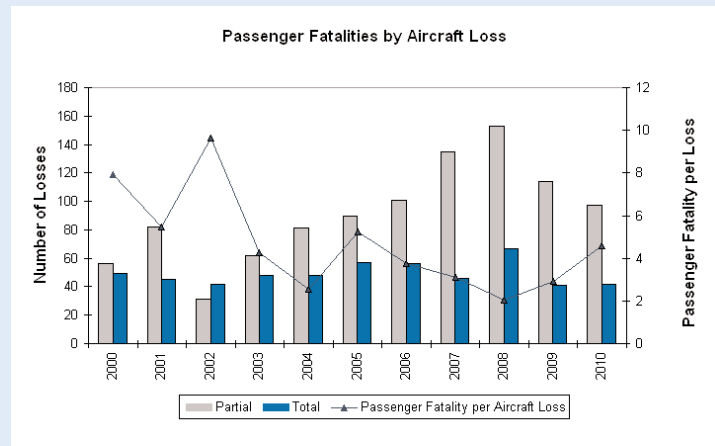
The largest flight losses were the Afriqiyah Airbus crash-landing in Tripoli and the United Parcel Service Boeing on departure from Dubai. The Afriqiyah loss provided the largest passenger liability claim of the year.

Looking for some trend in the year's losses is difficult. It would be easy to say that the Middle East and Indian sub-continent were the areas of concern and with eight major airlines from around the world all suffering large losses in the area that may be true. Latin America had a number of losses with Aires, Conviasa, Aerocaribbean and Satena being recorded though values were relatively low.

Following a couple of years with major losses, North America was relatively safe in 2010 with no major hull loss in its territory.

Europe's year was marked by a non-fatal total loss of a Tupolev Tu-204 and the total loss of an Airbus A319 with the perhaps unfortunately named WindJet. (The aircraft was caught by windshear on landing).

Mention should be made of what could have been the year's major loss but was saved by the skill of the crew as a Qantas A380 suffered an uncontained engine failure on departure from Singapore. It is the largest incident so far for the largest airliner in the sky and its impact on Airbus, Qantas and Rolls-Royce will be felt for some time.



* The JLT liability estimates are provided merely as a guide.

Special Report

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