AIRLINE INSURANCE MARKET OVERVIEW

2014 was a year that, come the end of it, would have surprised many stakeholders. Having started with a premium base that had been considered underweight by insurers for some time, it ended with an expectation that conditions would start to change. This was due to the continued addition of significantly increasing exposures and the impact of a number of high valued losses.

What more did there need to be for insurers to secure more income?

It turned out that in reality one factor could provide enough influence to halt any ability of the market to secure significant premium increase; capacity.

The abundant capacity levels that existed in the market meant that competition remained high. The market was, however, divided through loss experience as many insurers were not impacted directly by the Malaysian airline losses. This lack of a market loss due to the “miss factor” meant that any market hardening could not be both significant and sustained. As a result, premium levels barely changed from the previous year.

The concentration of renewal activity in the final quarter and in reality the final six weeks of the year worked against insurers as their resolve for premium increases weakened as the year progressed and by the critical time of the year was all but eroded with premium the final quarter premium increase being just 5%.

The airline insurance market has again demonstrated that it is subject to market forces including supply and demand and competitive tension.

Although the year saw some high-profile losses and significant catastrophes the underlying safety trend continues to improve and there were actually very few losses in excess of US$10 million in comparison with recent years. 2014 was only marginally above the five year average performance and this average is calculated on many of the safest years ever for airline operations.

Significant premium increases were in reality not going to be achieved across the board when the majority of buyers approached their renewal with growing exposures, good loss experience and in the majority of cases a younger, safer fleet of aircraft. In addition, the airline and insurance industry have had a counter-cyclical relationship. With oil prices falling, passenger numbers rising, load factors high and continued growth predicted the performance of airlines is improving from an economic standpoint and spells difficult times ahead for insurers from a premium point of view.

The challenge remains to establish the correct premium volume that the market needs to be able to meet the small attritional losses and still have enough premium available to cover the catastrophe losses that sadly will occur. How this can be achieved without a withdrawal of capacity remains to be seen. The continued absence of a “market loss” will continue to suppress any desire from insurers to increase premiums significantly.
### 2014 NET HULL & LIABILITY MARKET PREMIUM & EXPOSURE MOVEMENTS

<table>
<thead>
<tr>
<th>No. of Renewals</th>
<th>AFV % Change</th>
<th>PAX % Change</th>
<th>2013 Net Premium US$ m</th>
<th>2014 Net Premium US$ m</th>
<th>US$ m Premium Change</th>
<th>Premium % Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>January</td>
<td>5</td>
<td>16%</td>
<td>17%</td>
<td>$12.09</td>
<td>$14.29</td>
<td>$2.20</td>
</tr>
<tr>
<td>February</td>
<td>3</td>
<td>15%</td>
<td>5%</td>
<td>$6.33</td>
<td>$5.01</td>
<td>-$1.32</td>
</tr>
<tr>
<td>March</td>
<td>12</td>
<td>18%</td>
<td>11%</td>
<td>$38.34</td>
<td>$33.83</td>
<td>-$4.51</td>
</tr>
<tr>
<td>Q1</td>
<td>20</td>
<td>17%</td>
<td>12%</td>
<td>$56.76</td>
<td>$53.13</td>
<td>-$3.63</td>
</tr>
<tr>
<td>April</td>
<td>12</td>
<td>9%</td>
<td>9%</td>
<td>$92.90</td>
<td>$88.17</td>
<td>-$4.73</td>
</tr>
<tr>
<td>May</td>
<td>11</td>
<td>0%</td>
<td>3%</td>
<td>$43.87</td>
<td>$36.26</td>
<td>-$7.61</td>
</tr>
<tr>
<td>June</td>
<td>22</td>
<td>9%</td>
<td>3%</td>
<td>$68.38</td>
<td>$62.81</td>
<td>-$5.57</td>
</tr>
<tr>
<td>Q2</td>
<td>45</td>
<td>7%</td>
<td>6%</td>
<td>$205.16</td>
<td>$187.24</td>
<td>-$17.91</td>
</tr>
<tr>
<td>July</td>
<td>36</td>
<td>11%</td>
<td>12%</td>
<td>$126.60</td>
<td>$113.73</td>
<td>-$12.88</td>
</tr>
<tr>
<td>August</td>
<td>7</td>
<td>15%</td>
<td>10%</td>
<td>$22.39</td>
<td>$21.77</td>
<td>-$0.62</td>
</tr>
<tr>
<td>September</td>
<td>9</td>
<td>8%</td>
<td>3%</td>
<td>$16.84</td>
<td>$20.53</td>
<td>$3.68</td>
</tr>
<tr>
<td>Q3</td>
<td>52</td>
<td>11%</td>
<td>11%</td>
<td>$165.84</td>
<td>$156.02</td>
<td>-$9.82</td>
</tr>
<tr>
<td>October</td>
<td>9</td>
<td>-4%</td>
<td>7%</td>
<td>$58.22</td>
<td>$69.66</td>
<td>$11.44</td>
</tr>
<tr>
<td>November</td>
<td>36</td>
<td>6%</td>
<td>9%</td>
<td>$285.40</td>
<td>$280.51</td>
<td>-$4.89</td>
</tr>
<tr>
<td>December</td>
<td>70</td>
<td>7%</td>
<td>4%</td>
<td>$655.16</td>
<td>$701.77</td>
<td>$46.61</td>
</tr>
<tr>
<td>Q4</td>
<td>115</td>
<td>6%</td>
<td>5%</td>
<td>$998.77</td>
<td>$1,051.93</td>
<td>$53.16</td>
</tr>
<tr>
<td>2014 Total</td>
<td>232</td>
<td>7%</td>
<td>6%</td>
<td>$1,426.53</td>
<td>$1,448.32</td>
<td>$21.79</td>
</tr>
</tbody>
</table>

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### WORLDWIDE AIRLINE MARKET HULL & LIABILITY PREMIUM AND CLAIMS ON A CALENDAR YEAR BASIS

*Premium includes all known airlines with an AFV in excess of US$100m and is based on Net London Lead Terms; it is subject to change as more information becomes available.

**Claims shown include the estimated figure for attritional losses. Products/Airport/ATC portion of losses are not included, this data shows Airline Hull & Liability claims only. Claims are updated as more information becomes available.
MARKET NEWS

CHARLES TAYLOR ADJUSTING (CTA) STRENGTHENS THEIR AVIATION TEAM IN MEXICO & CENTRAL AMERICA

Charles Taylor Adjusting (CTA) announced the appointment of John Leonard as Resident Manager - Aviation of CTAs office in Mexico City.

John, who will start on 6 April 2015, will be responsible for strengthening and developing Charles Taylor's aviation business in Mexico serving both the domestic and international insurance markets. He will join both Victor Moldonado and Luis Garcia, and work with them to enhance the existing General Aviation work, while providing extensive experience and knowledge of managing airline, corporate jets and complex claims worldwide.

While John’s principal focus will be on the development of the Mexican book of business, he will also be working in conjunction with CTA’s US operations to support the handling of claims within the Central and Latin America region.

John has 26 years of aviation experience, having spent 13 years at British Airways as an airframe and engine licensed engineer. He joined Charles Taylor in 2004 and a year later was seconded to the Singapore office, before moving back to London after completing over seven years in Asia. During his time, he has handled insurance claims across all aircraft types, including numerous major Hull Losses. John also holds a commercial pilots license and has a good understanding of Spanish.

GRAHAM DALDRY JOINS LA REUNION AERIENNE GROUP

LA RÉUNION AERIENNE Group has recruited Graham Daldry to fill the newly created role of Portfolio Manager for Manufacturers and Airports. With over 30 years’ experience working in the Aviation insurance market, Graham has held senior underwriting roles in the London and international markets. Lately at Brit Aviation, he also spent seven years until June 2014 at QBE Aviation where, as portfolio manager, he built a profitable aerospace book with his team, and prior, spent 3 years at Allianz and 13 years at Ace in aviation. Renowned specialist Graham has a deep understanding of Aerospace industry and has been leading major accounts in this sector.

Graham starting his new position with effect from 16th March 2015. He is based in Robert Malatier Ltd's office in London (40 Lime Street) as Senior Underwriter reporting directly to Ian Thomas, RML's managing director, as well as to Jean-Claude Gèze, Chief Underwriting Officer for the Group.
WILLIS NEWS

WILLIS IATA AAPA ASIA PACIFIC INSURANCE CONFERENCE

The Willis-IATA-AAPA Aviation Insurance Conference is a landmark industry event, which brings together professionals from across the aviation sector as well as a wide array of partners from related fields as diverse as safety, technology, risk and insurance. Now in its thirteenth year the event attracted senior representatives from over 40 airlines. The majority of these being from the Asia region as well as a number of major airlines from across the globe including Lufthansa and American Airlines.

A number of aviation industry and insurance experts spoke about the challenges and exciting opportunities facing the industry. An early topic at the event centred on the immense growth potential that the Asia region represents. Examples being:

- Between them China and India are expected to make up 39% of Global Economic Growth by 2030, according to UN figures
- 2010 to 2015 China started work on 55 new airports
- Boeing predicted that an estimated 37% of all airplane deliveries over the next 20 years will be made in Asia-Pacific
- Over half of the world’s population live within 5 hours flying time of Hong Kong

There was also a focus on the multi-faceted and ever growing challenges of a catastrophe for airlines, their stakeholders and service providers. The messages were particularly poignant with a showing of Malaysia Airlines’ video tribute to all those that suffered from the tragedies of 2014. A strong message came across that airlines should find in their insurance programme a true investment rather than just a cost.

AVIATION INDUSTRY IS UNDER-PREPARED TO DEAL WITH CYBER RISK NOTES WILLIS EXPERT

Speaking at the Willis-IATA-AAPA Aviation Insurance conference in Hong Kong, Armstrong explained that the aviation industry’s under-preparedness is noteworthy in a sector that abhors uncertainty and works tirelessly to eradicate it. He added that the recent launch of the American Institute of Aeronautics and Astronautics (AIAA) cyber security framework is a good start, supported by the International Air Transport Association (IATA) aviation cyber security tool kit.

However, he warned that regulators, manufacturers and operators are only now waking up to the pervasive nature of cyber threats. “We remain concerned that cyber risk is not viewed as a significant enabler, amplifier or accelerator of existing risk in the portfolio as well as discrete cyber risk posed for example through use of Cloud technologies. This is a Board Room issue representing a sophisticated challenge to sophisticated organisations.” said Armstrong.

"Risk management professionals need to bring a focus to this issue and represent it to their Boards as a significant extension of existing risk as well as an incremental risk to their businesses. While we believe this is predominantly a risk management issue, the insurance industry has a role to play and must ensure that it has the appropriate solutions on offer not only to help companies deal with the financial fallout from cyber breaches, but also to recognise the significant impact cyber has on existing categories of risk and respond with appropriate risk transfer solutions."

The umbrella term cyber-risk refers to many interrelated human, governance and technological issues, and is an expression of the impact that cyber vulnerabilities have upon the portfolio of risks that a business faces ranging from data protection, business interruption, physical damage, or the inability to trade – for example under the growing threat of cyber extortion.

“The aviation sector is particularly vulnerable to aggregated risk consequent upon cyber vulnerabilities because there is such heavy reliance upon digital capability and the very high degree of integration in a very sophisticated supply chain. Vulnerability and weakness in any part of the supply chain can and does have significant impact on the safety and effectiveness of the whole.” noted Armstrong.
LOSSES OVERVIEW

2014 experienced some of the largest and most high profile losses ever. The year will be remembered for some of the strangest and most tragic losses ever to impact the airline industry. At the same time the underlying trend for airline safety continued to improve.

The 2014 loss total was US$1.67bn made up of US$414m of hull losses, US$791m for liabilities and our estimate US$465m for attritionals.

2014 HULL & LIABILITY LOSSES WITH A RESERVE OVER US$10 MILLION

<table>
<thead>
<tr>
<th>Date of Loss</th>
<th>Operator</th>
<th>Aircraft Type</th>
<th>Location of Loss</th>
<th>Fatalities</th>
</tr>
</thead>
<tbody>
<tr>
<td>05 January 2014</td>
<td>Air India</td>
<td>A320</td>
<td>Jaipur, India</td>
<td>0</td>
</tr>
<tr>
<td>26 January 2014</td>
<td>Pacific Air Express</td>
<td>B737</td>
<td>Honiara Airport, Solomon Islands</td>
<td>0</td>
</tr>
<tr>
<td>13 February 2014</td>
<td>Jetstar Asia</td>
<td>A320</td>
<td>In flight, Indonesia</td>
<td>0</td>
</tr>
<tr>
<td>08 March 2014</td>
<td>Malaysia Airlines</td>
<td>B777</td>
<td>TBA</td>
<td>239</td>
</tr>
<tr>
<td>13 March 2014</td>
<td>US Airways</td>
<td>A320</td>
<td>Philadelphia Airport, USA</td>
<td>0</td>
</tr>
<tr>
<td>14 April 2014</td>
<td>Golden Myanmar</td>
<td>A320</td>
<td>Yangon Airport, Myanmar</td>
<td>0</td>
</tr>
<tr>
<td>03 June 2014</td>
<td>Aeroflot</td>
<td>IL-96</td>
<td>Sheremetyevo Airport, Russia</td>
<td>0</td>
</tr>
<tr>
<td>17 July 2014</td>
<td>Malaysia Airlines</td>
<td>B777</td>
<td>Ukraine</td>
<td>295</td>
</tr>
<tr>
<td>23 July 2014</td>
<td>TransAsia Airways</td>
<td>ATR72</td>
<td>Penghu, Taiwan</td>
<td>48</td>
</tr>
<tr>
<td>24 July 2014</td>
<td>Swiftair / Air Algerie</td>
<td>MD83</td>
<td>Mali</td>
<td>116</td>
</tr>
<tr>
<td>28 December 2014</td>
<td>Air Asia</td>
<td>A320</td>
<td>Indonesia</td>
<td>162</td>
</tr>
</tbody>
</table>

This loss total is marginally above the five year average, but it is worth noting that this average is calculated from many of the safest years ever for airline operations and as a result some of the lowest years ever for airline losses.

While there were a number of high valued and high profile losses the number of losses in excess of US$10m was in fact quite low in comparison to recent years as highlighted by the table below.

<table>
<thead>
<tr>
<th>Year</th>
<th>Losses over $10m</th>
<th>Losses over $100m</th>
<th>Losses over $250m</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>20</td>
<td>6</td>
<td>0</td>
</tr>
<tr>
<td>2011</td>
<td>17</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>2012</td>
<td>12</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2013</td>
<td>19</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>2014</td>
<td>12</td>
<td>3</td>
<td>2</td>
</tr>
</tbody>
</table>

The level of attritional losses has been an area of concern for insurers. As overall premium levels have been eroded these losses have accounted for a significant amount of the premium available to pay the catastrophe losses that the market has to respond to. Our analysis would suggest that the level of attritional losses has however not grown in line with airline exposures over the past five years. We therefore believe that the industry, whilst exposed, continues to perform well in this area particularly when the overall safety of operations is considered.
The airline insurance market remains a catastrophe driven market that has been historically predictable in loss frequency if not severity. Improved industry airline safety has reduced the frequency of losses dramatically in the past ten years but the severity of the losses that do occur - and their market impact - remains unpredictable.

**HULL WAR**

After a benign few years 2014 witnessed a series of losses which had a major impact on the Hull War market.

- Linhas Aereas Mocambique pilot suicide
- MH370, possible malicious act – 50%/50% Clause invoked
- Shaheen and PIA, damage caused by Terrorists attacking Karachi Airport
- MH17 – believed to have been shot down in Eastern Ukraine
- Various losses at Tripoli Airport, Libya

The annual war premium was exhausted many times over by these losses and the market looked to address the premium levels as a consequence. The Hull War market has traditionally been a reactive market and has historically seen swift and significant increases in response to losses.

This market is however facing the same challenge as the core hull and liability market significant excess capacity in existence providing a dampening effect on the severity of the market reaction. The average rate change for 2014 as a whole was approximately 5%. Including the introduction of U.S. airlines hull war premium, this took the overall premium volume up to around US$95m.

As the world continues to be a volatile place the nature or size of any occurrence that will impact this sector remains as unpredictable as ever but with capacity as it stands the market reaction might for once be more predictable.
LOOKING AHEAD

In comparison with the final quarter of 2014, the first three months of 2015 have been quiet in terms of renewal activity. The exposure size and premium volumes renewing are also significantly reduced in comparison with the end of last year. Drawing a straight comparison, the final quarter of 2014 saw 20 renewals representing US$700bn of average fleet value and 2.4 billion passengers while the first quarter of 2015 represented 20 renewals, US$28bn of fleet value and just 62 million passengers.

This time of year is therefore of limited value when looking at potential trends for 2015. This is especially the case when many - if not all - of the January renewals would have been negotiated along with the renewals that incepted in the hectic final six weeks of 2014.

Any predictions for 2015 therefore need to be based on the likelihood of the continuation of the existing trend. On this basis, the primary drivers of capacity (which is abundant) and claims (which are unpredictable) have not changed. This indicates that 2015 looks set to be very much a continuation of a “buyers market”.

2014 reminded us that tragic accidents can happen and the airline insurance market will incur losses as a result. It is clear, however, that losses alone seem unable to drive any significant change in the market conditions and therefore the dominant driver at this time remains capacity. With no reduction in the level of capacity, the dampening of insurers’ ability to increase premiums looks set to continue. It is likely that the market conditions are going to look ever more favourable for buyers.

This year has got off to a good start in terms of safety with losses currently running below the 5 years average. US$132m worth of losses has been recorded for the first two months of the year, including a pro rata amount for attritional losses.

Added to this is the fact that industry growth also looks set to continue with manufacturer order books bulging and passenger numbers spurred on by continued global economic recovery. All this growth will mean that while larger, the global fleet will continue to be younger, more fuel efficient and most importantly safer than ever before. Increased exposures have not directly translated into increased losses but, instead, have provided a vehicle for insurers to maintain their premium volumes despite average rate reductions.

The cycle of consolidation that has occurred in the most developed markets could well continue. However, with many of the larger airlines having completed their large mergers, the impact of this will be less significant in its impact on the market as a whole.

With the next major renewal month being April, the impact of any losses and growth exposure remains to be seen. However, without pressure from outside the market to drive change, airlines will approach the renewal season at the end of this year with less trepidation than in 2014.

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This newsletter offers a general overview of its subject matter. It does not necessarily address every aspect of its subject or every product available in the market. It is not intended to be, and should not be, used to replace specific advice relating to individual situations and we do not offer, and this should not be seen as, legal, accounting or tax advice. If you intend to take any action or make any decision on the basis of the content of this publication you should first seek specific advice from an appropriate professional. Some of the information in this publication may be compiled from third party sources we consider to be reliable, however we do not guarantee and are not responsible for the accuracy of such. The views expressed are not necessarily those of the Willis Group.

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