



# JLT Aerospace



## PLANE TALKING

NOVEMBER DECEMBER 2006

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### Editorial

If you know anyone who would like to be added to our mailing list or your email address changes, please advise by emailing details to: [peter.barleycorn@jltre.com](mailto:peter.barleycorn@jltre.com)

Editorial Team:  
Peter Barleycorn  
John Boler  
Trevor Howard

### And finally...

As 2006 draws to a close, premiums and rates continue to fall although it appears that they are being eroded faster than we have seen previously. Even coverage for excess AV52 is considerably less expensive than 2005. This is not entirely surprising as claims activity is still very low and capacity is still plentiful.

There have been no more new underwriting entities announced, however the difference between the established insurers and the newcomers is becoming very marked. The pattern emerging is that the older insurers are pushing for terms close to those of the lead underwriter. New entrants, on the other hand, find themselves having to be far more flexible in their approach.

The soaring cost of fuel in 2006 has been a major concern for the whole industry. Nevertheless, many airlines are showing positive results, including some of the US majors. This economic confidence can also be seen in the orders for new aircraft and passenger

traffic numbers which are still looking healthy. Indeed, both the new A350 XWB and Boeing 747-8 Intercontinental have been launched and the A380 has finally received its type certificate.

Meanwhile, airline mergers, take-overs and private equity bids are becoming the order of the day. So, we will watch with interest as the new year brings a possible new dawn for Ryanair and Aer Lingus, US Airways and Delta, United and Continental and Qantas and Airline Partners Australia .

2007 is set to be interesting.

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## November Renewals

The second busiest month of the renewal season provided fifteen airlines for our assessment down from seventeen last year with Hawaiian Airlines extending to December and changing broker from Lockton (previously Alexander Forbes) to Marsh and British Airways moving to April 2007.

By far the biggest renewal is the Gulf Consortium of airlines that includes among others, Emirates, Saudi Arabian, Kuwait, Gulf and Etihad. As expected, growth has been above the average with fleet values increasing by 12% to nearly US\$35 billion and passenger numbers up by 14% to over 64 million.

In the Far East both Cathay Pacific and Singapore Airlines have also increased their fleet values and expected passenger movements as has Korean Air. Other notable renewals include South African Airways, the IT groups First Choice and Kuoni Travel, plus two of the biggest package and cargo operators DHL and UPS.

The weighted average movement for exposures show average fleet values up by 9% and where shown revenue passenger kilometres by 8%. Expected enplaned passenger numbers will increase by 11% which considering the number of airlines involved is quite significant. Our selection of airlines show that overall premiums came down by approximately 17%.

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## December Renewals

Not only does the month contain the greatest number of operators and airline groupings by far compared to the rest of the year but also some of the largest by way of fleet values. The Civil Aviation Authority of China is now the biggest placing in the world with 14 individual airlines making up the assemblage and represented by brokers Willis and Marsh.

We have 43 items making up our market overview with relatively few changes from last year. ATA Airlines comes in from October and changes broker from Aon to Willis. Czech Airlines, Egyptair and Royal Air Maroc have all moved broker to JLT.

The month has also by far the greatest representation of national flag carriers, some of the most prominent being Air Canada, Air France/KLM, Alitalia, Iberia, Japan Airlines, Lufthansa, Malaysian, Thai, and Varig. Among the majors from the USA are Delta, Northwest/Continental, Southwest, United and US Air.

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## November Loss Analysis

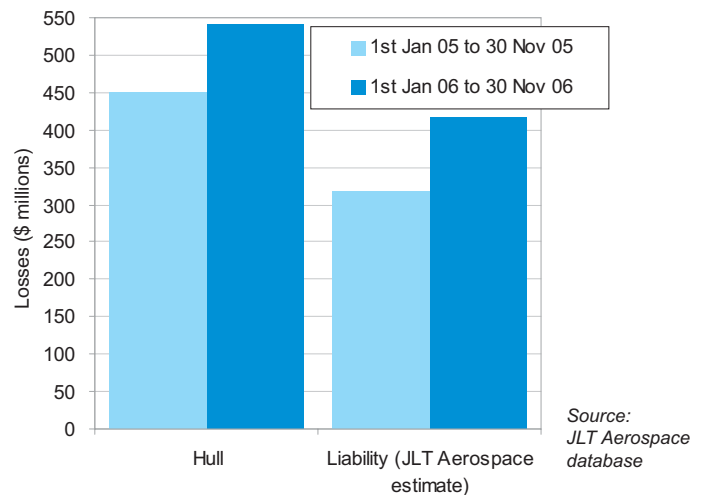
The month produced a very low level of accidents, and yet again this is commensurate with what we have become accustomed to during 2006. Out of all the incidents reported which included the usual airport bumps there was just one fatal crash to a commercial passenger service that involved a Twin Otter in Indonesia resulting in the deaths of 12 people.

Reportable incidents include:

On the 5<sup>th</sup> a Eurocopter AS332L2 Super Puma reg 9M-SPA belonging to MHS Aviation ditched in the South China sea off the coast of Malaysia. 19 passengers and one crewmember survived but the pilot in command is missing. The aircraft was insured for US\$19 million and is a Total Loss. This accident will not appear in our statistics as it was not a commercial operation and is for information only.

A Swearingen Metro 11 reg C-FTNV belonging to Perimeter Airlines veered off the runway on landing at Norway House Airport, Manitoba on the 8<sup>th</sup> and ran over snow before hitting rocks where both its nose and one main landing gear collapsed. The aircraft valued at US\$660,000 is a Total Loss.

### Major Airline Losses for Year to Date



A Goma Air Let 410 reg 9Q-CBQ suffered an engine failure soon after taking off from Walikale Road airfield in the Congo on the 9<sup>th</sup> and upon making an emergency landing discovered the airfield had been reopened to road traffic. The subsequent landing involved hitting a number of vehicles and houses before ending up in a plantation, killing at least one person on the ground. The aircraft is a Constructive Total Loss.

On landing at Manila International Airport on the 16<sup>th</sup> an Aboitiz Air YS-11 lost steering and left the runway causing the nose and right hand gear to collapse with subsequent

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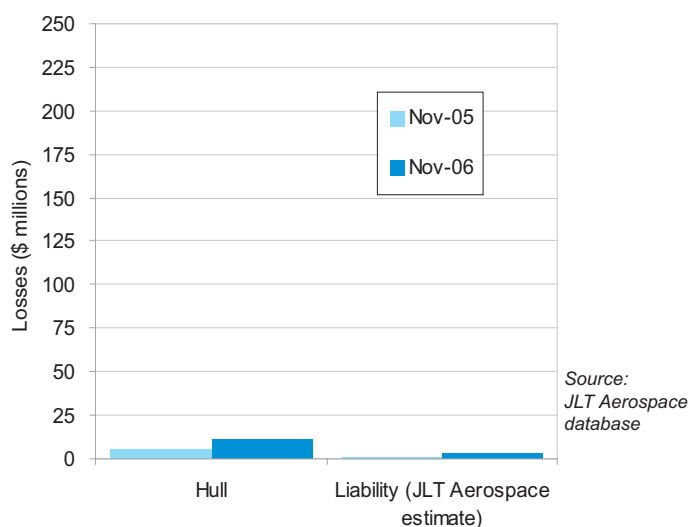
damage to the engine and propeller. There was no hull insurance.

A cargo DC-10-30F reg N-305FE belonging to Cielos Del Peru failed to stop at the end of the runway on landing at Barranquilla in Colombia on the 17<sup>th</sup> causing the nose gear to collapse and damaging the forward fuselage. The aircraft, insured in the London market for US\$7,500,000 was substantially damaged and has been declared a CTL.

On the same day a Trigana Air DHC-6 Twin Otter reg PK-YPY while on a flight from Mulia to Ilaga in Indonesia flew into mountains at 18,000 feet killing all nine passengers and three crew. The weather at the time was described as very poor. The insured value of the aircraft was US\$1,000,000.

Yet another cargo aircraft was lost in Colombia when an Aerosucre Boeing 727-200F reg HK-3667X hit a 40m high TV antenna on approach to Leticia on the 18<sup>th</sup> killing the crew of three plus two non revenue passengers. The aircraft was nearly forty years old and valued at US\$2,000,000.

### November Major Airline Losses



Overall hull losses total US\$11,160,000 with liabilities estimated at US\$3.05 million. We estimate that total overall hull and liability losses to date come to US\$955,440,000, which is pretty much in line with our original predictions for 2006.

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## Insurance Industry News

As expected, November provided the market with a level of premium very much in line with current thoughts and predictions. Losses for the month were remarkably light, giving underwriters a continued cushion of comfort despite the premium slide as we enter the final phase of the year.

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It now looks as if December will follow suit and from information received to date there appear to be no surprises around the corner. Current levels of capacity suggest that once this renewal season is over, things will probably remain intact well into next year.

The gap between premium and claims, once attritional losses are included, and subject to no catastrophes before year-end could be around US\$350 to US\$450 million. This figure will be subject to interpretation as market analysts decide exactly how to gauge such things as vertical marketing and discounting.

We have been asked to point out that Portugalia is still a member of the Lufthansa Aviation Insurance group and is insured with the Lufthansa placement. This is contrary to information we received and reported in the last edition of Plane Talking.

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## Arrivals and Departures

Paul Macmillan and Sue Kyd, Underwriter and Deputy Underwriter respectively at Wurttembergische, have resigned and will be joining the Kiln Syndicate once clear of their notice periods.

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## Airline Industry News

In announcing its plans to expand and modernise its passenger fleet, Lufthansa has recently placed orders and options with both Airbus and Boeing for aircraft valued at US\$6.9 billion. One of the most interesting aspects of this acquisition is that at last Boeing has received a positive commitment from a major carrier for the passenger version of the new series of the 747 the "8 Intercontinental".

Now that Qantas has accepted the takeover bid from Airline Partners Australia, it leaves one of the largest and most successful airlines in the world in the hands of an Australian bank and a US private equity investor, subject to regulatory approval and acceptance by 90% of the airline's shareholders.

With the US Airways bid for Delta still in the offing we now hear that Continental and United are also in talks that would lead to the world's biggest carrier. With other merger rumours circulating in the US including discount carrier AirTran's bid for Midwest Air it is now looking more likely that the airline industry is becoming more serious in tackling the blight of over-capacity.

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# Boeing 747 - The legend continues

During the last four years the most popular replacement for the passenger 747 has been the twin-engine 777 with its impressive load and fuel economy. Now at last the 747 enters what is possibly its final incarnation and may well represent the end of what has been an aviation phenomenon. The story of this aircraft is an interesting one and worthy of a brief resume.

The "Jumbo" has been a favourite long-haul choice for over 36 years, but its origins can be traced as far back as 1964 when the United States Air Force issued a requirement for a new large strategic airlifter leading to a competition between Boeing, Douglas and Lockheed, the latter winning with the C-5 Galaxy.

Boeing was keenly disappointed to lose the military contract but during the mid 1960's air travel was booming and with predictions that this would continue, Boeing took the bold step and with a fair amount of confidence based on their initial ideas for a large strategic airlifter, laid the draft in 1966 for the biggest passenger aircraft ever to be built. The basic criterion was to transport 400 passengers over intercontinental distances at a higher cruising speed than before and at lower seat mile costs. On April 12<sup>th</sup>, the chairman of Pan Am signed a US\$550 million contract for 25 aircraft, the largest valued order for aircraft ever placed. Then Japan Airlines and Lufthansa placed orders and on 25<sup>th</sup> July 1966 the decision to begin construction was given.



**Uniformed flight attendants representing each of the 747's initial 26 airline customers**

The first customer deliveries were to be made in 1969 and considering this was in the days before modern computer software and prior to the building of their dedicated assembly plant at Everett the task was awesome. Although essentially the 747 design contained no magic technological breakthrough or new aerodynamic approach, it was simply a bigger aeroplane with bigger engines and carrying a bigger payload than the existing

aircraft of the time, the McDonnell Douglas DC-8 super 60 with 250 seats and the 140 seat B707 which were the mainstay of intercontinental fleets. This represented a far greater jump in size than is the case with initial versions of the A380.

Despite the daunting schedule the first ship was rolled out at the end of September 1968 while the factory still had not been completed, no aircraft systems had been tested and the Pratt and Whitney JT9D engines had not been run. Huge problems were overcome to ensure the first flight on the 9<sup>th</sup> February 1969 and by mid May Boeing had five 747s available for flight-testing. The biggest problem was the reliability of the Pratt and Whitney JT9D turbofan engines which, in the beginning had been exclusively designed for the 747 and throughout the test programme some 87 engine breakdowns took place necessitating 55 engine changes.

However, Boeing were determined to prove the 747's reliability by flying to the Paris air show in June 1969 and this it did, covering the 5,160 miles in nine hours and 18 minutes without a problem.

Of considerable significance was the fact that it was parked next to Concorde, the Anglo-French interpretation of what Europe thought the future would be for intercontinental passenger transport, and if the USA had been keener on SST then perhaps eventually there would have been two supersonic scheduled passenger aircraft instead of just the one.

It is interesting to note that during this time when Boeing had its hands full with development and production of the biggest capacity passenger aircraft ever, it was also in the early design stages of a supersonic transport.

By the mid 1960s the general opinion in aviation circles was that the future lay with supersonic passenger aircraft. The joint British and French project that would lead to Concorde was underway and the Soviet Union was also in the early stages of what would become the TU144. In June 1963 six months after the British and French governments signed an agreement to develop Concorde, John F Kennedy initiated a design competition for an American SST eventually won by Boeing. The design was not unlike its European rival but able to carry 300 passengers, and 26 airlines had reserved delivery positions. However, in March 1971 the US senate voted 51-46 against granting continued appropriation for prototype construction and development.

1969 was a remarkable year for many reasons and the achievements are now legendary. The 747 proved that Boeing were right, it was what the world needed and wanted, Concorde, the only survivor of the SST

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dream gave the world just a taste of what it thought it wanted and on top of these two milestones Apollo 11 and 12 took technology to a new distant dimension while John Fairfax in rowing the Atlantic solo for the first time took human achievements to a more earthly one.

It was therefore thought at the time that SST would replace the 747 and Boeing were shrewd enough to design the 747 so that it could easily be adapted to carry freight knowing that when sales of the passenger version dried up, it could remain in production as a cargo aircraft.

The build up to the first delivery to Pan Am was traumatic for Boeing with a performance shortfall that left Pan Am threatening to withhold part of the payments on each aircraft until the problems had been sorted out.

During the 1970s the dominance of the 747 was threatened by the three-engine concept introduced by Lockheed with the Tri-Star and McDonnell Douglas with the DC-10 that offered better fuel economy at a time when oil prices were high. Although the 747 survived while the two others did not, it left Boeing in the early 1970s in a precarious financial state, and almost on the verge of going bust. In fact things were so bad that it seriously considered selling the entire 737 programme to the Japanese aerospace industry to raise much needed funds.

True to its promise though, Boeing's predictions came true with the passenger and freight versions of the 747 producing up to 30% per seat mile savings over the older 707. Therefore, as well as the obvious cost benefits to the airlines it was also possible to offer cheaper tickets to passengers, thus opening up the world of international travel to many more people.



**Boeing 747-8 Intercontinental**

For decades therefore, the Jumbo remained the backbone of most major international airlines in the world, strong, reliable, safe, and giving operators a guaranteed return on their investment. It also proved to be a lifeline in a crisis. On two particular occasions it helped save many lives.

Following tropical cyclone Tracy hitting Darwin on Christmas day 1974, a Qantas 747 lifted 694 passengers plus crew making a total of 715 people on board, establishing a world record at the time. Later, in May 1991 during Operation Solomon, an El Al 747 carried a record 1,088 refugees from Ethiopia to Israel having removed all the seats and using every inch of available space on board.

The highest density seen on regular operations has been on France's Corsair that would carry 587 passengers on charter flights to the Caribbean. In Japan, All Nippon and Japan Airlines regularly carry 569 passengers on the busy domestic services.

Because of Boeing's initial foresight both the dedicated and converted freighter versions have up to now been the only 747-400 type ordered since 2002.

By stretching the -400 and giving it a new wing, upgraded cockpit, new cabin and, most important of all, the General Electric Genx engines, production should be assured for at least another six to eight years. This will make the 747 the second most enduring western built commercial aircraft ever after the 737 which first flew in April 1967.

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## And finally...

### Something in the air

Passengers aboard a recent American Airlines flight could be forgiven for their concern if the sudden sulphurous smell permeating the aircraft's cabin reminded them of the time in 2001 when Robert Reid, the 'shoe bomber', tried to ignite a bomb hidden in his trainers and bring down an American Airlines flight on its way from Paris to Miami.

An emergency diversion was made to Nashville and the 99 passengers were de-planed while the aircraft and their luggage was carefully searched. Sniffer dogs quickly located the source of the smell when they discovered spent matches under a passenger's seat.

After intense questioning by the FBI, a woman passenger finally admitted to striking the matches – not because of a nicotine craving but in order to disguise the smell of her flatulence.

We've heard of aircraft being affected by strong wind before, but this one probably isn't in the crew training manual...

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# Launch Log

## December Launches

### 8 December

Site: Kennedy  
 Launcher: Discovery  
 Payload: STS 116  
 SpaceHab LSM  
 ITS-P5  
 ANDE  
 RAFT1  
 MEPSI-2

### 8 December

Site: Xichang  
 Launcher: CZ-3A  
 Payload: Feng Yun 2D

### 8 December

Site: Kourou  
 Launcher: Ariane 5ECA  
 Payload: Wild Blue 1  
 AMC-18

### 11 December

Site: Wallops  
 Launcher: Minotaur 1  
 Payload: TacSat 2  
 GeneSat

### 11 December

Site: Baykonur  
 Launcher: Proton M  
 Payload: MeaSat 3

### 14 / 15 December

Site: Vandenberg  
 Launcher: Delta 2/7920  
 Payload: NRO L-21

### 16 December

Site: Tanegashima  
 Launcher: H-2A/204  
 Payload: ETS-8

### 19 December

Site: Plesetsk  
 Launcher: Kosmos 3M  
 Payload: SAR-Lupe 1

### 21 December

Site: Baykonur  
 Launcher: Soyuz 2, 1b  
 Payload: CoRoT

### 22 December

Site: Plesetsk  
 Launcher: Soyuz 2, 1a  
 Payload: Meridian

### 25 December

Site: Baykonur  
 Launcher: Proton K  
 Payload: Kosmos 2424  
 Kosmos 2425  
 Kosmos 2426

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