Airfinance Annual

2016/2017

www.airfinancejournal.com

AIRFINANCE JOURNAL

This year is expected to be the fifth consecutive year of improving aggregate industry profits for global airlines.

The sector continues to benefit from cheap fuel costs, available funding and a resilient travel market despite slow global economic growth.

Global airlines are tipped to post record profits of almost $40 billion, according to the International Air Transport Association (IATA).

That compares with a global aggregate profit of $35.3 billion in 2015.

In the first half of this year, global air passenger traffic, which underpins demand for commercial aircraft, grew 6% compared with 6.5% in 2015, as measured in revenue passenger kilometres, says IATA.

However, gross domestic product is predicted to slow to 2.3% this year as weak economic conditions prevail. This is down from 2.4% in 2015 and the weakest growth since 2008 when the global financial crisis hit.

But almost a decade on from the financial crisis, and numerous bouts of monetary stimulus, the global economy remains fragile and at risk of another recession.

The Bank of England was forced to cut its base rate to 0.25% from 0.5% in August, a new historic low, after the UK's vote in June to leave the European Union.

European Central Bank interest rates became negative in the summer of 2014 in a move to spur growth by prompting banks to lend, to avoid a 0.4% premium, and boost inflation.

Meanwhile, the eurozone programme of quantitative easing, which began in 2015, will remain in place until at least March 2017.

Now all eyes are on the US Federal Reserve chair Janet Yellen and whether she will increase interest rates by the end of the year.

It should come as no surprise then that various governments are now showing interest in unconventional forms of Keynesian policies, to spur growth and boost inflation through the permanent monetisation of government debt.

But despite this difficult economic backdrop, the airline industry is in much better shape than in the past, with more efficient balance sheets and networks.

"They [the airlines] are not in a survival mode anymore," declared Air Lease's executive chairman Steven Udvar Hazy at an industry gathering in September of 1,300 delegates, including top management of most aircraft and engines leasing companies.

Udvar Hazy also pointed to the growth of Europe's low-cost carrier market despite headlines of anemic economic growth in the region.

"Europe is lagging behind other parts of the world according to the media, but the five largest low-cost carriers are in Europe, and all have grown double digits in the last five years, every one of them, outstripping the growth of the US majors and the European legacy carriers. They also have been growing at six to eight times GDP growth," he said.

CIT Aerospace's chief executive officer Jeffrey Knittel agreed, stating that airline management teams are more efficient than they have ever been with a strong focus on cash.

GECAS' chief Alec Burger opined: "It is the best of times for many airlines, driven by demand and low fuel costs and this will translate into some very healthy profits."

Airlines have proven that they can make money in a high fuel cost environment at $110 per barrel, as well as during times of economic distress.

Despite political unrest in Turkey and the collapse of the Russian and Brazilian economies the air transportation market has remained intact.

Better business models and globalisation have enhanced the performance of the industry.

From a financial perspective, the airlines are now at a "completely different level" compared with years before, DVB's Bert van Leeuwen points out in his comprehensive overview of the sector.

Between 2014 and 2015, the return on invested capital jumped from an already unusually positive 5.9% to 9.3%. It is expected to further increase to 9.8% in 2016.

In its latest outlook, Boeing Capital predicts that the requirement for commercial aircraft deliveries will reach $127 billion this year.

As DVB's overview notes, while this is a "staggering amount" as such, it looks like this will not be a problem at all due to the overwhelming abundance of liquidity in the sector.

Asian investors, in particular from China, have indicated they are eager to each invest billions of dollars into commercial aircraft financing.

US dollar cash flows stemming from aviation assets are attracting these investors, which are eager to invest outside of the yuan.

Chinese insurance company Ping An has indicated it is planning to invest up to $10 billion in aircraft financing and leasing, while Bohai Leasing, part of the HNA Group, invested to the tune of $7.6 billion to purchase Dublin-based Avolon last year.

Bohai initially committed to acquire the Avolon shares for $26 each, a 14.5% premium to its average share price at the time, but raised the offer to $31-a-share after another bidder emerged, underscoring the eagerness of Chinese money to have a strong foothold into the aviation leasing market.

However, DVB questions whether this new "gold rush" will come to a happy end.

But for now, cheap fuel, low interest rates and strong travel demand prevail, so the good times for the global airline industry are set to continue. ■


zeevo
Delivering Technology That Truly Works For Your Business
PROGRAM/PROJECT MANAGEMENT
PORTAL DESIGN AND DEVELOPMENT
ENTERPRISE ARCHITECTURE
BUSINESS INTELLIGENCE AND ANALYTICS
BUSINESS PROCESS OPTIMIZATION
SOFTWARE DEVELOPMENT
WORKFLOWS
ENTERPRISE INTEGRATION
INTERNAL CONTROLS AND COMPLIANCE
Technology is the backbone of today's competitive advantage. Leveraging the right technology optimizes decision-making, minimizes risk, enhances control, and increases overall operational productivity.
Our team comprises practicioners with extensive experience in aircraft leasing and a proven track record in developing solutions that are implementable, scalable and sustainable. Designing solutions more broadly and thoroughly than a typical *IT firm*, our professionals and network of alliances can help you become more decisive and more responsive to change. In a much faster and more profitable way. Across continents, business units or systems, our team is prepared to enable your teams to achieve your vision
zeevogroup.com

Editor
Jack Dutton
+44(0)20 7779 8734
jack.dutton@euromoneyplc.com

Managing director
Laura Mueller
+44 (0)207 779 8278
laura.mueller@euromoneyplc.com

Managing director
Olivier Bonnassies
+44 (0)207 779 8062
olivier.bonnassies@euromoneyplc.com

Senior reporter
Joe Kavanagh
+1 212 224 3477
joe.kavanagh@euromoneyplc.com

Senior reporter
Michael Allen
+852 2842 6941
michael.allen@euromoneyplc.com

Group sub editor
Peter Styles Wilson

Production editor
Tim Huxford

Advertisement manager
Chris Gardner
+44 (0)20 7779 8231
chris.gardner@euromoneyplc.com

Head of subscription sales
Chris Welding
T: +44 (0) 207 779 8015
chris.welding@euromoneyplc.com

Senior marketing executive
Sam Fairburn
+44(0) 20 7779 8257
samuel.fairburn@euromoneyplc.com

Account manager
Oliver Goodwin
+44 (0) 20 7779 8868
oliver.goodwin@euromoneyplc.com

Managing director
The Airline Analyst
Mike Duff
+44 (0)20 7779 8058
mduff@theairlineanalyst.com

Divisional director
Danny Williams

Subscriptions / Conferences Hotline
+44 (0)20 7779 8999 / +1 212 224 3570
hotline@euromoneyplc.com

Customer services
+44 (0)20 7779 8610
8 Bouverie Street, London
EC4Y 8AX

Directors: John Botts (Chairman), Andrew Rashbass (CEO), Sir Patrick Sergeant, The Viscount Rothermere, Colin Jones, Paul Zwillenberg, David Pritchard, Andrew Ballingal, Tristan Hillgarth.

Printed in the UK by Buxton Press.

Airfinance Journal (USPS No: 022-554) is a full service business website and e-news facility with printed supplements for **$3,565/€2,855/£2,095*** a year by Euromoney Institutional Investor PLC . (*£ and € prices are subject to VAT)

Industry review and outlook

Bert van Leeuwen, managing director, aviation research, DVB, says that, although the industry is still enjoying growth, there is concern about how, and when, the boom will end.

The golden age of commercial aviation continued during the first half of 2016. While geopolitical and economic events caused significant uncertainty in many parts of the world, passenger traffic continued on its growth path. Despite slowly increasing fuel prices, airline profitability on an aggregated level is still at very comfortable levels.

After an almost unprecedented period of relative prosperity in the industry, questions are being asked about the longevity of this boom, especially by those observers that had seen how the almost 10-year long boom in the shipping industry ended. In the early months of 2016, some aviation industry leaders, mainly from the original equipment manufacturers (OEMs), as well as North American airlines, dismissed concerns that the aviation business cycle was on the cusp of a downturn.

Airbus's chief operating officer customers, John Leahy, was quoted as saying "aircraft manufacturing is no longer a cyclical business", and American Airlines chief executive officer Doug Parker as "… it is highly unlikely you are going to see losses again in this business", later explained by the airline that he "was not trying to say that no one will ever lose money again in the airline business" but rather that "down-cycles won't look like they did in the past".

At the opposite end of the spectrum, reputable analysts could be found, including Avitas's Adam Pilarski, who questioned the assumption that "we are entering the magical world of no aviation cycles". More on this later.

During the first months of 2016, the global economy evolved in line with the International Monetary Fund's (IMF) expectations, and improvements in a few large emerging markets suggested a potential modest upward revision of the 2017 global growth projection. The IMF also noted some pick-up in Chinese infrastructure investments and higher oil prices.

On 23 June, after the UK voted in favour of leaving the European Union, things changed and an important downside risk for the world economy materialised. Also the financial markets were caught by surprise. Because of the expectation that the uncertainty resulting from Brexit will take its toll on confidence, in general, and in financial conditions, in particular, the IMF adjusted its World Economic Outlook (WEO) in July downward by 0.1 percentage point compared with its April forecast. The European economies are expected to be impacted most, with only modest effects on the US and China. In its July WEO, the IMF projected a 3.1% increase in the world output for 2016, increasing to 3.4% for 2017.

Another interesting and highly relevant change in the IMF projections is the assumed oil price. For 2016, the average projected oil price was increased from $34.75 a barrel (bbl) to $42.90/bbl and for the year 2017 from $40.99 to $50/bbl.

In its July report, the IMF concluded that from a macroeconomic perspective, Brexit substantially increased economic, political and institutional uncertainty, with projected negative consequences, especially in European economies.

Given those economic uncertainties, plus the high level of terrorist activities and political unrest (such as in Turkey), it is almost a miracle that passenger traffic has continued its solid growth path. Over the first half of 2016, global revenue passenger kilometres increased by 6%.

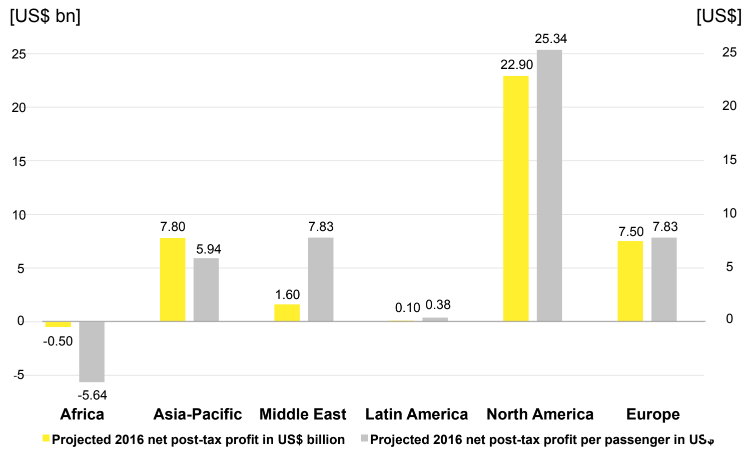
The growth in air transport can partly be explained by the lower ticket prices, which the airlines are charging their customers. According to the International Air Transport Association (IATA), the trade association representing some 265 airlines or 83% of total air traffic, average return fares (before surcharges and taxes) in constant (2015) US dollars will drop from $407 in 2015 to $366 in 2016.

While average fares have been falling for decades, it has been the lower fuel price that enabled airlines to lower ticket prices by such a huge amount. The projected total spend of air transport in 2016 is anticipated to be about $740 billion, 1.3% lower compared with the $750 billion from 2015. In real volume terms, both the revenue passenger kilometres (RPK), as well as the number of passenger departures, are projected to increase. The RPK volume will rise from 6.679 billion in 2015 to an estimated 7.093 billion this year, a 6.2% increase. The number of passenger departures will increase by about 6% to 3.783 billion. The airline industry is offering its customers an increasing range of direct connections. Over the past 20 years, connectivity has doubled and today the world's airlines offer connections between more than 18,000 unique city-pairs.

The impact of terrorist actions on global travel and tourism in 2015 and 2016 seems to be relatively modest, compared with the impact of similar kinds of atrocities in the past. Despite the apparently increasing frequency and high-profile nature of these atrocities, it seems the impact on travel and tourism is mainly felt locally. The World Travel & Tourism Council (WTTC) expects that for 2016, the direct gross demestic product (GDP) contribution of the sector will still grow by 3.1%.

According to WTTC, only three countries have seen their outlook deteriorate during the first months of 2016. Despite the Olympic Games,

Airline industry – results per region



Source: IATA "Economic Performance of the Airline Industry, mid 2016"

held in Rio, Brazil, turmoil and weak macroeconomics have caused growth to deteriorate from -0.9% to -1.6%. Turkey will see the direct contribution of travel and tourism to the GDP deteriorate from an initially anticipated -0.2% to -3.2%. Obviously, in the case of Turkey, many factors play a role: a spate of terrorist attacks, the failed military coup, changes in the internal political climate, the conflict with Russia and the war in nearby Syria.

The third country to suffer is France. While still in positive territory, the growth in the contribution of travel and tourism to the French GDP will be reduced to 1.1% from 2.9% because of the various terrorist acts in the country, including the atrocities in Nice in July.

From a financial perspective, the airlines are at a completely different level compared with years ago. While during the first decade of this century (2000-09) significant losses were booked, this changed dramatically after 2010 when, according to International Civil Aviation Organisation figures, global airlines booked a net income of $17.3 billion.

In 2015, partly as a result of the low oil prices, net income doubled from the previous year to $35.3 billion. For 2016, preliminary IATA figures indicate a potential net post-tax profit of $39.4 billion. Between 2014 and 2015, the return on invested capital jumped from an already unusually positive 5.9% to 9.3%, and for 2016 a further increase to 9.8% is projected.

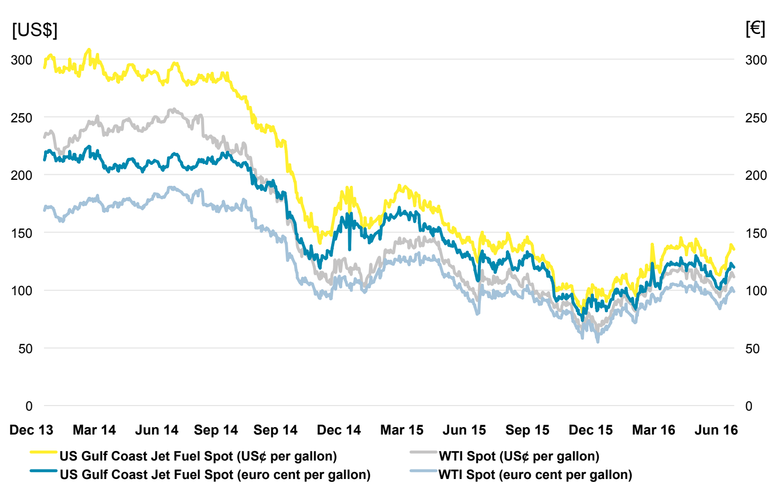
It should be noted that the main source of profitability is the North American market. It is interesting to compare the absolute post-tax profit per region with the profit per passenger. By both criteria, North America stands out. Apart from the benefit of lower fuel costs, the North American result can be explained by the increased market power of the major airlines after a wave of consolidation. This has enabled improved pricing power, as well as higher load factors and more income from ancillary services.

Traditionally, when airline profitability went up, the new order volume for commercial aircraft also increased. This link has been broken in the past year. While the industry profit doubled between 2014 and 2015, the number of new aircraft orders dropped to 2,400 from about 3,600 (new orders for western-built jets, all commercial operations, including type swaps). This trend seems to have continued in the first eight months of 2016, with about 1,100 orders versus almost 1,400 during the same period in 2015.

Both the Boeing 737 and the Airbus A320 booked decent order volumes over this period. Airbus sold about 300 Neos and 130 Ceos but there was a significant number of type swaps included in this number. Boeing sold about 210 Maxs and 110 NGs. Bombardier finally seemed to have hit the jackpot with 130 orders for the CSeries. Widebody aircraft sales were particularly hit in 2016, with only 125 orders in the first eight months.

It has been suggested that the relatively low fuel price has taken away a major incentive for airlines to order fuel-efficient new-technology aircraft. It is difficult to find convincing proof for this. Jet fuel (US Gulf Coast, FOB) reached a low in January 2016 at just over $0.80 a gallon but

Crude oil and jet fuel price development



Source: Energy Information Agency and European Central Bank subsequently showed a steady climb to reach $1.45 in June. Since then, the price has fluctuated between about $1.20 and 1.40 a gallon.

Apart from the price of jet fuel, it seems the new order volume is held back by the record backlog already on order and the resulting significant lead times for the delivery of the more popular jet types. Overall, the backlog for commercial jets is equal to about nine times the production volume of 2015. Another stimulating factor that was absent in 2015 and the first half of 2016 was the launch of a significant new aircraft type. Only a few new variants, including a minor stretch of the 737 Max 7, were announced. Airbus and Boeing were rumoured to be contemplating new aircraft, such as an A350-2000, a 777-10X, an all-new middle-of-the-market aircraft or a 737 Max 10, but effectively none of these have been confirmed. Most developments that were announced focused on high-density interiors, by applying slimline seats, more compact galleys and lavatories and reconfigured emergency exits.

The stagnant order intake certainly is not caused by a lack of commercial funding. Both debt funding, as well as equity, is abundantly available at historically low cost by a broad range of lenders and investors. The only source that could not easily be tapped was government export credit financing. Both the US Export-Import Bank and the European export credit agencies (ECAs) had their problems. While US Eximbank's charter was reauthorised for five years at the end of 2015, the US Senate did not nominate three new board members for the export credit agency, essentially taking away the bank's ability to approve big ticket $10 million-plus transactions. Reportedly, in July, an amendment as part of the appropriations bill that funds the State Department and other related agencies was approved, effectively allowing the bank board to approve transactions with a quorum of only two members. For the legislation to become law, both the Senate and House of Representatives have to approve the legislation.

In Europe, the problems are of an entirely different nature. In April, UK Export Finance, Coface of France and the German export credit agency, Euler Hermes, halted all guarantees and export support for Airbus aircraft. Reported "inaccuracies" in applications for export credit financing relating to information provided in respect to consultants and other third parties were the reason for this suspension of support. In July, Airbus reported that a process for the re-establishment of ECA financing had been agreed and was ongoing, and that it was targeting ECA financing to resume in the fourth quarter of 2016.

The timing of these two incidents could not have been better. Boeing reported that the percentage of deliveries supported by Exim reached 30% during the global financial crisis between 2009 and 2012. In the period 2012-15, this percentage had come down to a 10-year low of 11%, probably partly as a result of the 2011 Aircraft Sector Understanding that increased the cost of export financing for most borrowers and made commercial funding more attractive. For 2016, Boeing predicts that only 11% of all global commercial jet deliveries will involve export credit, down from 13% in 2015.

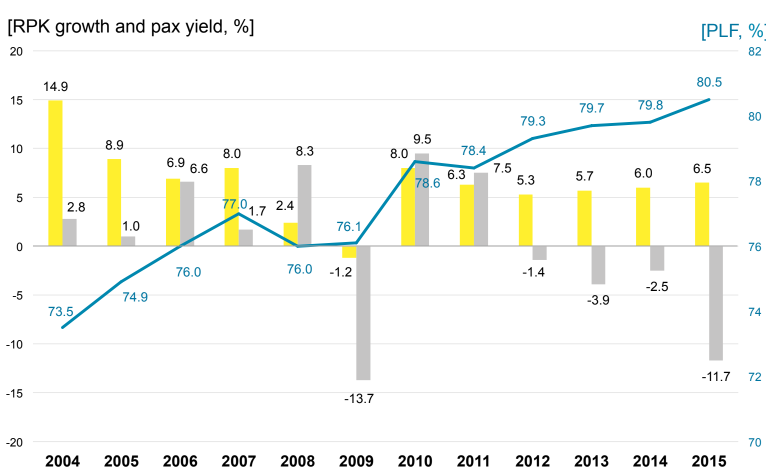
Air transport market – first-half 2016

The good times for the global air transport market continued during the first half of 2016, albeit at a slightly lower pace compared with 2015. According to IATA, total revenue passenger kilometres increased by 6.5% year on year for the full-year 2015, slowing down to 6% during the first six months of 2016. International traffic – representing 63.6% of total traffic – grew by 6.2% compared with 6.5% in 2015, while domestic traffic – representing 36.4% of total traffic – managed only 5.6% against 6.3% last year. The 2016 numbers are broadly in line with the 10-year average rates, which is not too bad given the weak situation of the global economy.

Predictably, the Middle East carriers (representing 9.4% of world RPKs in 2015) showed the strongest growth in international traffic, with an 11% increase in RPKs. Like in previous years, load factors stayed behind as the international airline capacity in the Middle East continued to expand by an ambitious 14.7%. During the first half of 2016, the big three, Emirates, Qatar and Etihad, took delivery of no fewer than 33 large twin-aisle aircraft – including nine 777-300ERs and 12 A380s – leaving little doubt their expansion plans are still very much alive.

Surprisingly, the runner-up in terms of international traffic growth was Africa, the continent that carried the red lantern in 2015. Africa is a relatively small market with a 2.2% share in world RPKs in 2015. African carriers saw their international traffic

IATA passenger market data



Source: IATA

increase by 9.6% during the first half of 2016, driven by a 10% increase in available seat kilometres (ASK) capacity, which is mainly the long-haul network expansion of Ethiopian Airlines. African carriers paid the price of rapid capacity expansion in the form of a lower load factor, with 65.9% the lowest of all regions.

The third-highest international RPK growth percentage was recorded by airlines in the large Asia-Pacific region, responsible for 31.5% of world traffic. Asian-Pacific carriers' traffic grew by 8.2%. ASK production increased more modestly with 7.7%. Latin America carriers, good for 5.4% of global traffic, came fourth with a 7.5% growth in demand (RPK) and 6.3% in production (ASK). The gap between the growth pace in Latin America and number five, Europe, is significant. Europe takes 26.7% of world traffic. European international traffic increased by 3.9% (RPK) and ASK production by a 4.3% increase. European carriers still achieved the highest load factor, 80.6%. It is expected that the wave of terrorist acts in Europe will impact traffic growth negatively. WTTC already has indicated a slowdown in spending on tourism and travel. The full impact of these events is not totally clear.

North American carriers – accounting for 24.7% of world traffic – seem to have given up their bad habits of the past and focused on profitability rather than volume. This once more highly profitable region saw an increase in international traffic of only 2%. During the first half of 2016, North American international production growth outstripped demand with a 2.4% ASK increase, but load factors of 80% on average are not bad.

While much smaller overall, compared with international traffic flows, domestic markets often reveal interesting developments and, during the first half of 2016, showed certainly more extremes. Although the domestic US market has 15.4% of world traffic and China 8.4%, the other domestic markets for which IATA releases monthly figures (Australia, Brazil, India, Japan and Russia) represent between only 1% and 2% of world traffic each. India surged to the top of the domestic markets in 2015, and this boom continued in 2016 with an RPK volume growth of 23.3%, ahead of a 22.8% production increase. The load factor in the Indian domestic market reached a record 84.4%, apparently justifying the huge fleet purchases of Indian carriers in recent years.

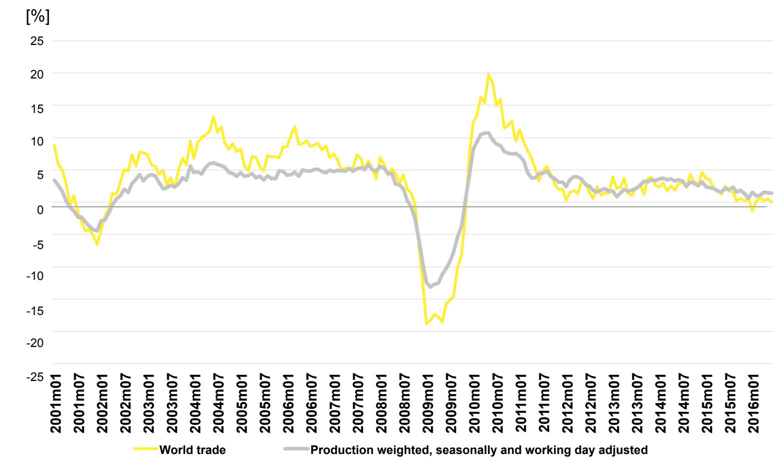
The assumed economic slowdown in China did not impact the domestic air transport market. Demand grew in line with production, 9.8% and 9.9%, respectively. The big US domestic market showed a reasonable traffic increase of 4.6% (more than double the pace of US international traffic), which is about in line with the 4.9% ASK expansion. The relatively small Australian domestic market achieved a 2.8% growth, with 0.4% increase in production. Russia's domestic demand stagnated at 0.3% but the troubled Russian airlines produced 5.9% fewer ASKs, boosting their load factor to 75.1%. Despite the preparations for the summer Olympics, the domestic Brazilian market could not escape the country's political and economic crisis. Troubled Brazilian carriers produced 6% fewer ASKs but demand came down by 6.8%, so load factors stayed more or less at the same level.

Moving on from the passenger market to the airfreight sector (air cargo officially includes airfreight and express/mail, but we use the terms interchangeably), it is important to realise the global fleet of maindeck commercial jet freighters (including combis and convertibles) is about one-eighth of the size of the passenger fleet. Unfortunately, the airfreight market is not sharing in the good times of the passenger market. For the first half of 2016, global air cargo volumes, expressed in freight tonne kilometres (FTKs) remained stagnant, with just a 0.5% increase. In 2015, the airfreight operators benefited from additional demand in the early months of the year as a result of the US west coast port strikes.

It seems to be generally accepted that, over the past years, the air cargo market has undergone a fundamental change as a result of, what seems, a structural weakness in global production and trade growth. Compared to the years before the financial crisis, global production and trade now follow a much lower growth path and even seem to be weakening in recent months.

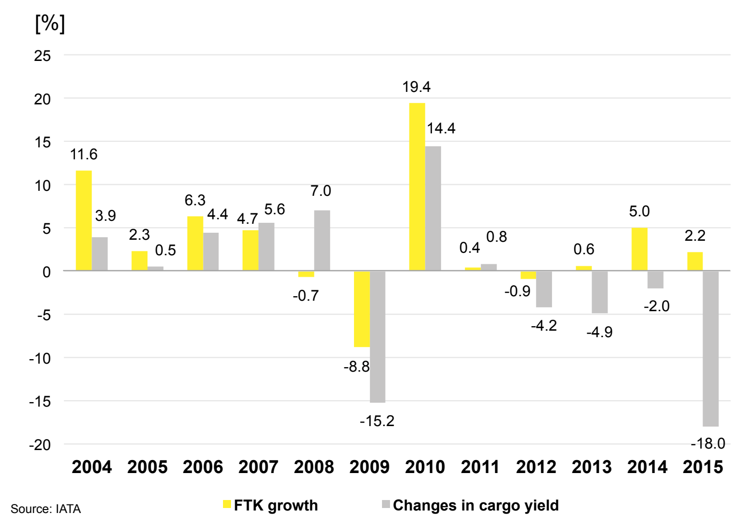
Air cargo operators are not the only ones suffering. Maritime container carriers are confronted with the same problem. The word "deglobalisation" has been mentioned. Danish shipping conglomerate AP Møller Mærsk has voiced concerns over how a potential shift in global policy in favour of more protectionism threatens to reduce global trade. Tariff barriers, Brexit and the potential political shift in the US are examples of this. Others refer to

Global production and global trade (YOY changes)



Source: CPB Netherlands – World Trade Monitor

IATA cargo market data



Globalisation 2.0, which is the growth in trade of intangibles, services, rather than tangible manufactured goods (Globalisation 1.0).

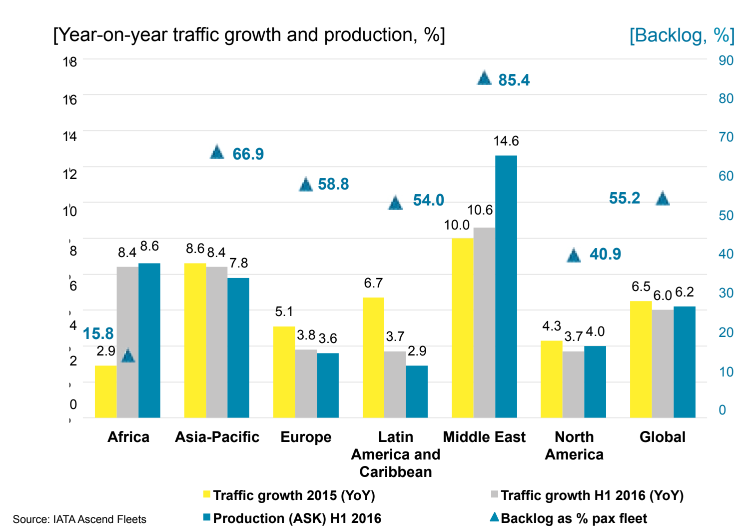
Whatever the cause, stagnant airfreight markets are a problem, because production (in available freight tonne kilometres) continues to exceed demand by a significant margin. While in the maritime industry this is caused by the huge orderbook for new container vessels, in aviation the increase in capacity is partly a by-product of the growth in the widebody passenger fleet. Modern twin-aisle passenger aircraft have huge cargo capacity in the belly of the aircraft. Against the 0.5% demand growth during the first half of 2016 stood a 6% growth in production. Not only belly-freight can be blamed, though. During the first half of 2016, 12 new widebody freighters were delivered (mainly 767-300ERFs to FedEx and 777-200LRFs to Middle East carriers), plus eight passenger-to-freighter cargo conversions (mainly 767-300ERs). During the same period, only 13 widebody freighters were retired (mainly MD-11Fs and Fedex A310Fs). The 24 converted narrowbody freighters, in particular the 737-400 and 757-200, are mainly destined for express freight operations in the US and China.

Middle East carriers also lead the way in the air cargo sector, market, but with a modest 6.4% increase in FTKs, which was achieved because of a capacity production of 10.6% AFTKs. European carriers came second with 3.7% growth in demand, achieved with a 6,2% increase in production. North America (-0.9%), Africa (-1%), Asia-Pacific (-2.2%) and Latin America (-5%) lost freight volume in the first six months of 2016. It is interesting to note that in all four regions, production increased significantly. Latin America produced an increase of 1.1% in AFTKs, Asia-Pacific was up 3.9%, North America 5.1% but Africa added a staggering 22.4%. Given the above figures, it is no surprise that the already low load factors in the air cargo business (partly explained by trade imbalances, forcing nearly empty return flights) deteriorated even further by 2.3% to 42.5%. Africa's freight load factor dropped to 24.9% in the first half of 2016.

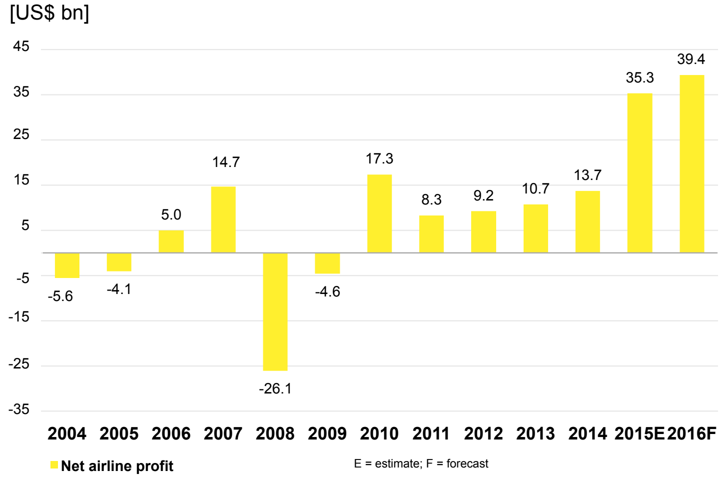
Returning to the passenger market and looking at the relationship between traffic growth and capacity expansion, the large orderbook confirms the continuing expansion strategy of Middle Eastern airlines despite the decreasing load factor over the first half of 2016. As of August, the orderbook for passenger jets was 85% of its fleet size.

Airlines can attract more passengers by offering more capacity in the form of more (direct) connections, as well as increasing frequency of service. The alternative is lowering ticket prices. Over the past four years, it can be argued that this has happened on a global scale, but in 2015, the lower fuel cost allowed airlines to lower prices significantly, resulting in an 11.7% lower passenger yield. With fuel prices showing upward tendencies, traffic stimulation by lower ticket prices may not be a viable option for much longer, at least not if airlines want to maintain current profitability levels.

Traffic growth and capacity on order



Worldwide airline profitability



Source: IATA "Economic Performance of the Airline Industry (Jun 2016)

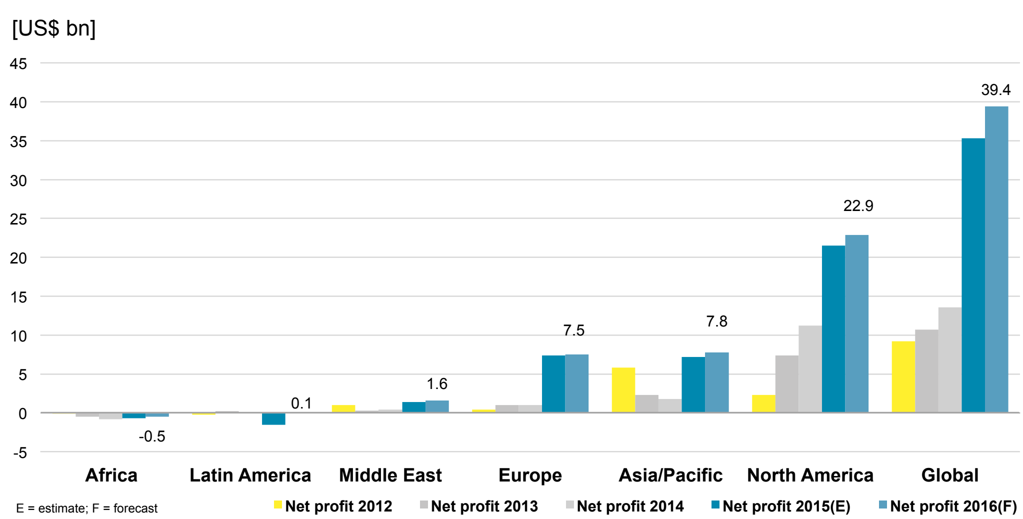
The softness of the air cargo markets is vividly illustrated by the fact that even an 18% decrease in cargo yield hardly resulted in a significant increase in demand. The latest monthly cargo figures (June 2016) looks slightly better compared with earlier months, but not enough realistically to expect a turning point in the market.

As we are only halfway through the year, it is not yet clear what the final financial results over 2016 will be for the global airlines. In 2015, commercial airlines booked a record profit. The net result by far exceeded anything that the industry had seen before. The latest numbers published by IATA indicates profit of $35.3 billion, a 9.3% return on invested capital and, probably for the first time in aviation history, a percentage that exceeds the weighted cost of capital.

Clearly, the unexpected fall in fuel cost was the main reason for this profit boom, but a robust growth in demand for air transport, a more bottom-line focused airline policy in general and the consolidation of the North American airlines were other contributing factors. It will be interesting to see what the next chapter will bring.

The outlook for 2016 is still positive, although there seems to be an upward trend in fuel cost. Traditionally, when airlines make money, a number of other stakeholders start to exercise pressure to get a bigger piece of the pie. Already we see labour costs becoming the largest biggest expense for the airlines, a position that was previously taken by fuel. Especially in North America, airlines have had to agree to significant pay rises, partly responding to the aim of the pilots' unions to restore salaries to pre-Chapter 11 levels. American reportedly reached an agreement with the pilots' union about a 42% salary raise over a period of five years. Rival United and its pilots' union agreed a two-year contract with a 13% raise in 2016, followed by a 3% increase in 2017 and a 2% rise in 2018. At the time of writing, Delta, Hawaiian and Southwest were negotiating but it looks like the outcome will be a double-digit pay rise over a number of years. The risk with this structural increase may

Airline net profit (post tax) by IATA region



Source: IATA

manifest itself should fuel cost move up again. This may cause a significant increase in the airlines' costs and the trigger another round of Chapter 11 reorganisations.

IATA estimates that $22.9 billion – 58% of the net global airline profit in 2015 – was generated by airlines from North America. Asia-Pacific and Europe each took about 20% of the global result, with $7.8 billion and $7.5 billion, respectively. The expanding Middle East carriers generated $1.6 billion, while Latin American carriers scored a marginal $100 million net profit. Africa once more ended in the red with a consolidated loss of $500 million.

On a per passenger basis, the result of North America is even more spectacular. With a realized net profit of $25.34, this continent is more than three times as profitable as the joint runners-up Europe and Middle East with $7.83 per passenger.

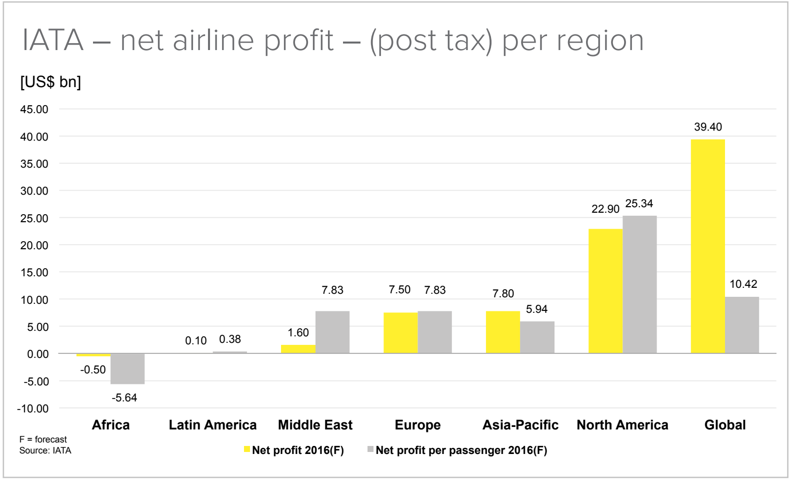
Based on a sample of 22 airlines, IATA has published some very early results for 2016. While overall profit was up about 12% for the first quarter, the result was 15% lower for the second quarter, resulting in a 2016 first-half profit about 7% lower than the same period last year.

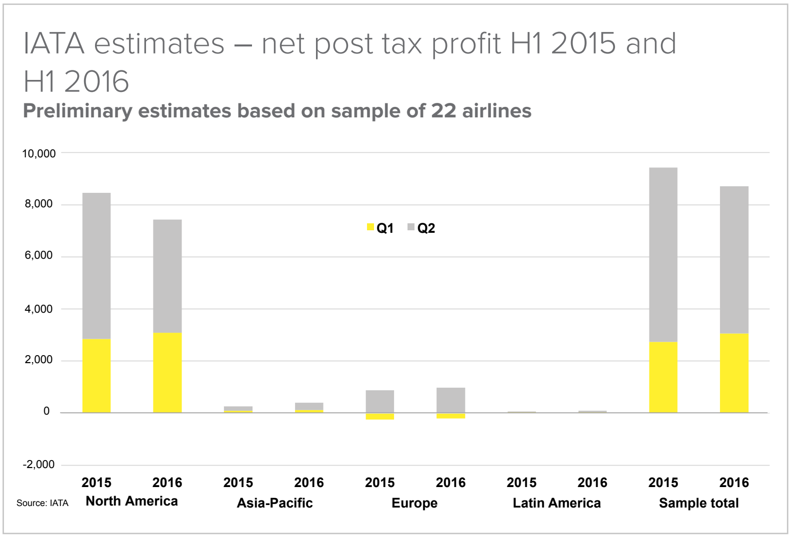
Of course, the sample is too small to draw any conclusions, but it looks like airline profitability this year will not be much higher than that for 2015.

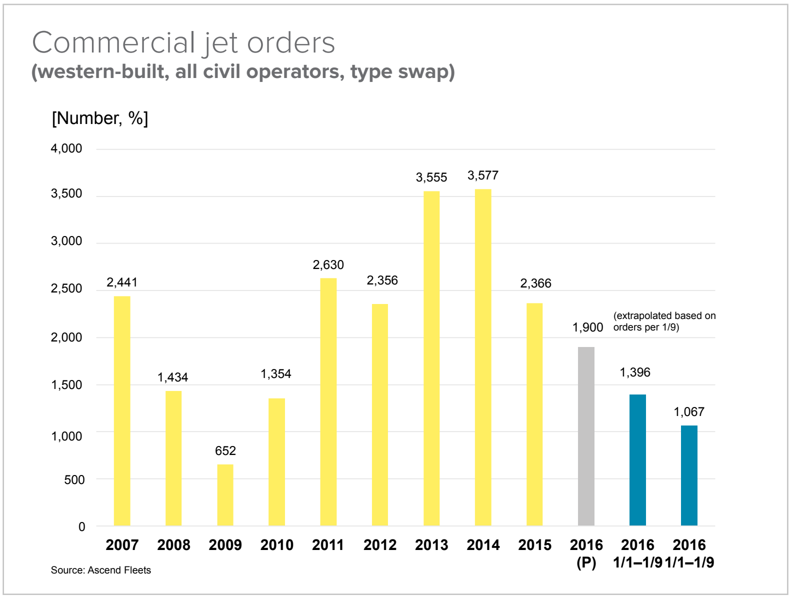
Equipment market

After several years of increasing sales volumes, the commercial jet order intake slowed down in 2015, and this trend seems to have continued into 2016. According to the latest figures from Ascend, which provides advisory and valuations services to the aviation industry, western-built jet sales (all civil operation, including type swaps) collapsed by about one-third between 2014 and 2015. At the time of writing, and after the Farnborough air show, 2016 sales are down another 24%.

A simple mechanical extrapolation of the sales total (as reflected in our database) of 1,067 at 1 September would result in sales of about 1,900 over full-year 2016. Obviously, a few mega-orders can change this dramatically (at the time of writing, the big AirAsia order for 100 A321neos was not yet officially confirmed). Low-







cost carriers speculating on large-scale sale and leasebacks in the near future can gain confidence from the continuing favourable climate in the airfinance and investment markets.

Over the first eight months of 2016, a total of 1,135 commercial aircraft were sold, of which 26 were for eastern aircraft (including 10 Sukhoi Superjet 100s) and 42 were for western turboprops According to Ascend. The remaining 1,067 aircraft are western-built jets. This number includes 131 type swaps, in this case mainly changes in the versions that were ordered within the A320 family. Out of the remaining 936 new orders, western regional jets took 199, single aisles 612 and twin aisles 125. The split of aircraft types is shown in the table.

While the already full orderbook, as well as the low fuel price, can be used to explain the softening of the new equipment market, the fact that during 2015, as well as 2016, no new aircraft types were announced did not help. Generally, new aircraft introductions significantly stimulate sales volumes. Obviously, Boeing announced a stretched version of the 737 Max 7 (sometimes dubbed the Max 7½), but this effectively is a redefinition of the Max 7, so not an additional version. Airbus announced the ultra long range version of its A350-900XWB in October 2015, but also that is only a minor variant, featuring a higher capacity fuel system within the existing fuel tanks.

Orders placed by all civil operators (1 Jan–1 Sept 2016)

Western single aisles	New	Swaps
737MAX-200	100	
737MAX-8	56	
737MAX BBJ	3	
737MAX TBD	48	
737-700	65	
737-800	44	
A320ceo	30	9
A321ceo	69	25
A319neo ACJ	1	9
A320neo	160	10
A321neo	36	78
Total	**612**	**131**

Western twin aisles	
747-8	4
767-300ERF	7
777-200F	2
777-300ER	10
787-9	23
A330-200	11
A330-300	17
A330-900neo	14
A350-1000XWB	8
A350-900XWB	27
A380	2
Total	**125**

Western regional jets	New
E170/175	30
E190 E2/195 E2	5
E190/195	5
CRJ900	21
CS100	75
CS300	52
ERJ-135	1
MRJ 90	10
Subtotal	**199**
SSJ 100 - 95	10
Total	**209**

Western turboprops	
Do-228	4
Q400	15
DHC-6 Twin Otter	3
ATR72-600	20
Total	**42**

Eastern aircraft	
An-178	10
L-410	4
Y-12	2
Total	**16**

Source: Ascend

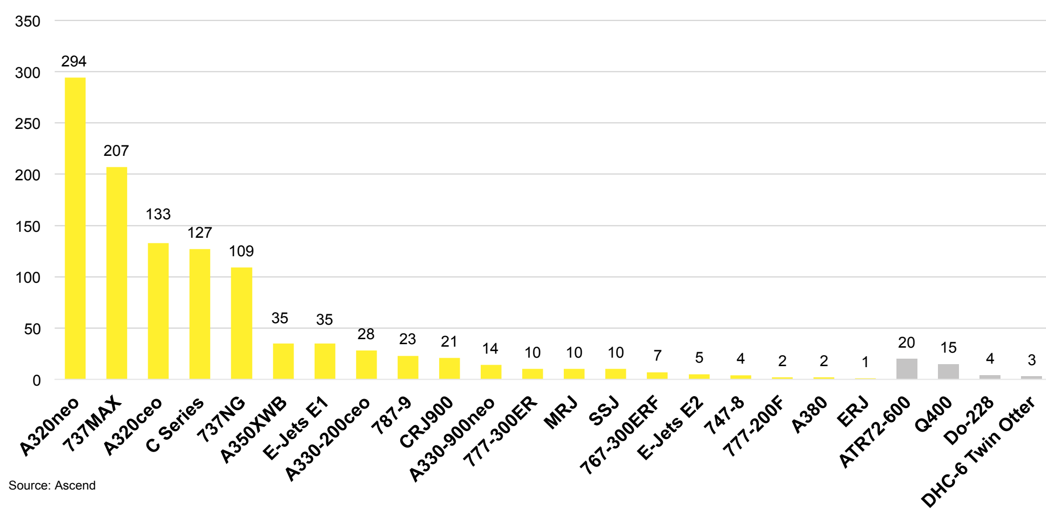
Rumours persist about a few new versions of existing aircraft types, but neither an A350-2000XWB, nor an A380neo, a 737 Max 10, a 777-10X or a CS500 were announced.

The much-debated Boeing middle-of-the-market aircraft also remains a long-term project. The dilemma seems to be that on the one hand, this aircraft should be Boeing's successor to the 757 and an answer to the success of the A321neo; on the other hand, it would be positioned in the market niche below the 787-8, where once the not very successful 767-200 and A310 could be found.

In terms of sales successes, while the A320neo (and Ceo) family, as well as the 737 Max (and NG) booked decent order volumes, the only manufacturer that had real reason to celebrate was Bombardier. With orders from Air Canada and, maybe even more important, Delta Air Lines, the Canadian manufacturer regained some much needed sales momentum.

The biggest order this year (as of 1 September) was placed by VietJet Air for 100 of the high-density interior 737 Max 200 aircraft, almost half of the total 737 Max orders. Malaysia Airlines Berhad, slowly emerging

Commercial aircraft orders 2016 YtD (all civil operators, as of 1 Sept, incl. 131 type swaps in A320 family)



Source: Ascend

from the ashes of Malaysian Airline System Berhad, was the second-largest customer with 25 new 737 Max orders. Eastern Air Lines, Tui Travel, Arik, Norwegian and Okay were the other customers for the 737 Max. All orders where the version of the aircraft was announced went to the Max 8 and its high-density variant the Max 200. Surprisingly, the good old 737NG received another 109 orders, including 40 for the shorter -700 version from United. The other customers were for the -800 and included Xiamen and Pegasus.

The second-largest single order came from Delta Air Lines when it ordered 75 CS100 aircraft from Bombardier. Air Canada preceded it with an order for 45 CS300s, the same version airBaltic had ordered in a smaller-sized transaction – seven aircraft. As Bombardier announced an onerous contract provision of about $500 million shortly after the Delta order, many industry observers started speculation about heavy discounting that must have been a condition to get the two big orders. One of Bombardier's older types, the CRJ900, could add orders from lessor Falko (four), Canada's Jazz (five) and unannounced customers (12).

The third-largest single order went to Airbus when Avianca Brazil ordered 62 A320neos, despite the political and economical crisis in the South American country. Germania ordered 25 A320neos and Spirit ordered 10. The order total for A320neos came out at 170.

While Boeing kept struggling to book Max 9 orders, Airbus continues to be successful selling its largest single-aisle aircraft. The order total came to 114 A321neos, including 30 from Norwegian, 15 from JetBlue and 12 from Avianca. Lessors AerCap, Air Lease, Alafco and ACG also placed additional orders, underlining their confidence in the A321neo. Avianca also ordered nine of the less popular A319neo. The older A320 scored orders for another 133, of which 94 were for the A321. Delta ordered 37 of the type, JetBlue 15 and several lessors and airlines placed single-digit orders. Allegiant Air and Awas ordered 12 and 15 A320s, respectively.

Embraer's largest order came from the Pacific Northwest as Horizon Air signed up for 30 Embraer E175s. The remaining new E-Jet orders came from J-Air (one) and Nordic Aviation (four) for the E190 model. Only five E2s were sold, when Indonesia's Kalstar Aviation signed up for five E190-E2s.

Embraer's competitors, MRJ from Japan and the Italo/Russian Superjet 100, each booked 10 orders from US leasing company Aerolease and Russian flag carrier Aeroflot, respectively. Sukhoi also revealed plans for a stretched 120-seat version of the SSJ100. The new version would be able to use the existing PowerJet SaM-146 engines, but would need a new wing design.

ATR received the biggest turboprop order as the changes in the political climate allowed Iranian airlines to buy western aircraft, under certain conditions. Iran Air seized the opportunity and ordered 20 ATR72-600s. Bombardier added 15 orders for the Q400 model, nine from WestJet Encore, three from Porter Airlines, plus two from Air Tanzania and one from Ilyushin Finance Company. The Viking/DHC-6 Twin Otter is the aircraft that reportedly has shown the best residual value performance over the past decades. Tara Air ordered three of these sturdy little props.

Meanwhile, 2016 has not been a stellar year for the twin-aisle segment, with only 125 orders over the first eight months.

Orders from China Eastern for 20, Philippine Airlines for six and Air Lease for one A350-900XWB brought this type to the top of the twin-aisle table. Virgin Atlantic compensated its loss of interest in the A380 by placing an order for eight of the stretched A350-1000XWB aircraft. Excluding the military MRTT, Airbus sold seven A330-200s to unannounced customers, plus 17 A330-300s to, among others, IAG (two) and Cebu Pacific (two). Garuda placed an order for 14 A330-900neos.

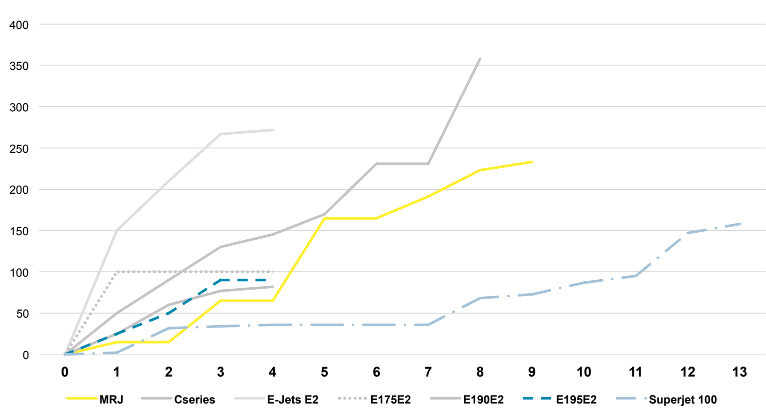
The dry spell continued for the A380, although a small order for two of these big quads from Emirates (apparently taking cancelled aircraft) saved the honour. Mixed messages reached the market, but it seems the revamped A380neo is still far away from a launch announcement.

Boeing's remaining quad, the 747-8, only appealed to Russian cargo operator Volga-Dnepr Airlines, which confirmed its intention to take 20 freighters. The announcement resulted in four additional firm orders.

Boeing's bestseller, however, was the 787-9 with a total of 23 orders: six from Riuli Airlines, one each from Thomson and Air Lease and 15 from unannounced customers. The 787-9 has completely overshadowed the 787-8. Hardly any additional orders have been booked for this shorter version of the Dreamliner for some time and it looks like this type will follow the scenario of the 767-200ER, which was also eclipsed by its bigger sister, the -300ER. This is a unexpected development for such a revolutionary new aircraft design.

Cumulative orders for regional jets

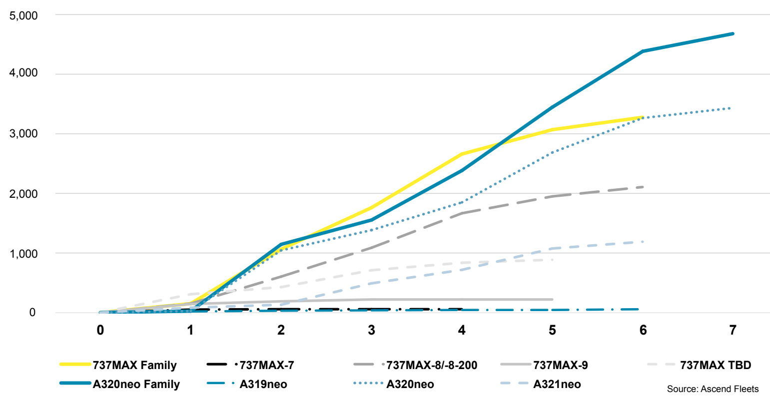
Incl. type swaps (1 = year of 1st order; recorded on date of original order)



Source: Ascend Fleets

Cumulative orders for single-aisle jets

Incl. type swaps (1 = year of 1st order; recorded on date of original order)



The stretched -10 version did not find any new customers either, but as the youngest member of the 787 family, there should be plenty of sales potential in years to come.

The order total for Boeing's new 777X did not change, because only orders for the current versions of the 777 were announced: two for the -200 Freighter model from FedEx and six from Air China (plus four unannounced) for the -300ER version. FedEx also added an order for seven 767-300ERFs to its book. An exotic order came from Silk Way Airbus for 10 Russian Antonov An-178 freighters.

The smaller Lockheed LM-100J freighter did not book any firm orders but signed a commitment with Bravo Industries for 10 of these rugged machines. Bravo is a logistics and defence group in Brazil. Overall, the first months of 2016 did not bring too much spectacular news from the commercial jet market, at least not in terms of new orders. Some of the aircraft that were announced a few years ago with a lot of fanfare did not book to many sales successes beyond the original group of launch customers.

In the regional market, effectively only the CSeries could break through the 300 orders glass ceiling that seemed to have existed for several years in this segment.

Looking beyond the most recent (lack of) sales successes, how are the various programmes progressing? The cumulative order charts give a good indication of what is going on in terms of market acceptance for the different new programmes.

In the regional market segment, the contrast between the order patterns of the Sukhoi Superjet and the Embraer E2 family is striking. While the Superjet has been struggling to get some order momentum for about five years since its launch customers committed, the E2 order volume took off like a rocket, but (temporarily) slowed down after about two years' progress. It is interesting to note that the current E175 (not in the chart) maintained sales momentum. There are questions about whether the new E175-E2 will meet the all-important scope clause criteria in the US market. Scope clauses limit the number and capacity, as well as the maximum take-off weight (MTOW), of aircraft that can be operated by commuter airlines on contracts with the US major operators. These scope clauses are negotiated between the US major airlines and the pilots' unions. With the Embraer E2 series now flight-testing, it should be well positioned for a second wave of orders.

The Mitsubishi MRJ took about three years to gain a decent order volume, but could not maintain this momentum and recent sales progress has been slow. At the end of 2015, the Japanese manufacturer had to announce a one-year delay in its delivery schedule because it had to strengthen the airframe and upgrade the software of the aircraft's systems.

The CSeries is an interesting story. A reasonably encouraging start that stagnated after about four years had many observers doubting the viability of the type. As the graph shows, the 2016 orders brought the Canadian aircraft back on track, albeit reportedly at the expense of significant discounting.

In the mainstream market of single-aisle aircraft, the battle between the A320neo and the 737 Max continued. Potential competition may come from the East, as China's Comac and Russia's Irkut continue to develop the C919 and MS-21, respectively. In the West, Airbus seems to have taken a lead over Boeing in sales volume, even adjusting for the fact that the 737 Max was launched about eight months after its European competitor. Short term, the A320neo is struggling with deliveries and performance. Unfortunately, the all-new Pratt & Whitney PW1100G-JM engines are suffering some technical problems. The manufacturer is working on solutions, both software and hardware related.

Both families are struggling to sell their smaller versions, the A319neo and the now slightly stretched 737 Max 7. The sweet spots of the families are the A320neo and the slightly larger 737 Max 8. The Airbus product also seems to be outselling its American rival. Adding the high-density Max 200 version to the Max 8's order tally and assuming most of the orders where the version is undecided will go to the Max 8 version, the sales gap between two rivals is not that significant anymore. As has been widely debated in the industry, the main difference is between the larger versions of the two families, with the A321neo clearly overshadowing the Max 9, unless all undecided versions would eventually turn out to be Max 9s, which is unlikely.

Given the physical limitations of the 737 Max airframe, it seems challenging (albeit not impossible) for Boeing to further stretch the Max 9 to a Max 10. To do this, while maintaining almost full commonality with the other members of the Max family, seems virtually impossible. Maybe, eventually, the solution will be in the form of an all-new middle-of-the-market aircraft, often referred to as the "new 757", but this will require careful positioning, because a standalone design between the Max 9 and the 787-8 twin aisle seems difficult to justify. Given the age of the Max design and the huge orderbook, it is unlikely that Boeing will launch an all-new single-aisle aircraft anytime soon.

Moving to the twin aisles, also here the A350XWB and the 787 seem to maintain equilibrium. Both types have family problems, as well. While Boeing had to cancel its Japanese domestic version, the -3, at an early stage, Airbus had to do the same for the -800XWB, which eventually was replaced by the A330neo. In the A350 range, the stretched A350-1000XWB is not booking spectacular sales successes either. Boeing's 787-10 made a strong start, but sales volume thereafter remained fairly stagnant. The -10 design is still young and volume can still pick up. Clearly, the A350-900XWB is by far the most important version of the A350 for Airbus, in terms of sales volume.

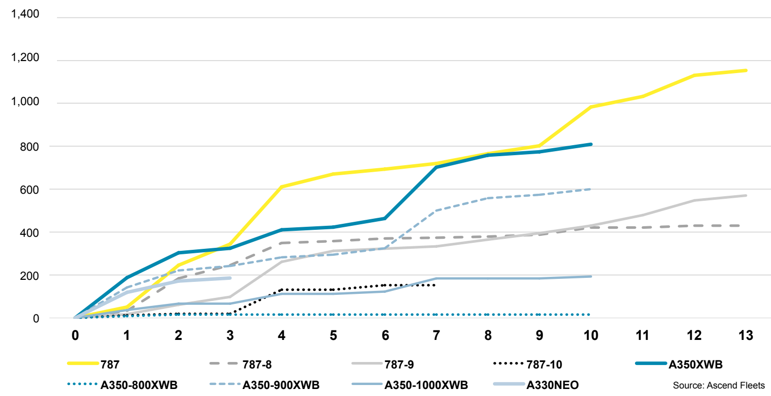
This is less clear in the case of the 787. Initially, the 787-8 was selling like hot cakes, but it seems that momentum for this version is lost. Apart from a few reworked early aircraft (dubbed "terrible teenagers" after their line numbers), no more new -8s have been sold during the past two to three years. In a number of cases, the customers even converted existing orders from the -8 to the -9 and, in the remaining backlog of about 111 aircraft, it can only be speculated whether Aeroflot (18) and Delta (18, former Northwest order) will maintain their orders.

The future of the -8 does not look too bright. Recent problems with Rolls-Royce Trent 1000 B and C engines in Japan do not help the 787. The 787-9 has effectively overtaken the -8 as the main model in the 787 range.

With the A330neo, Airbus launched a second new type into the medium/large twin-aisle segment. The shorter -800 version is not setting the world on fire, with just two customers for a total of 10 aircraft. Does it really make sense to build an aircraft for effectively one strong customer (Hawaiian) and a customer that already suffers overcapacity and is

Cumulative orders for medium/large twin-aisle jets

Incl. type swaps (1 = year of 1st order; recorded on date of original order)



not reporting financial results that are too encouraging?

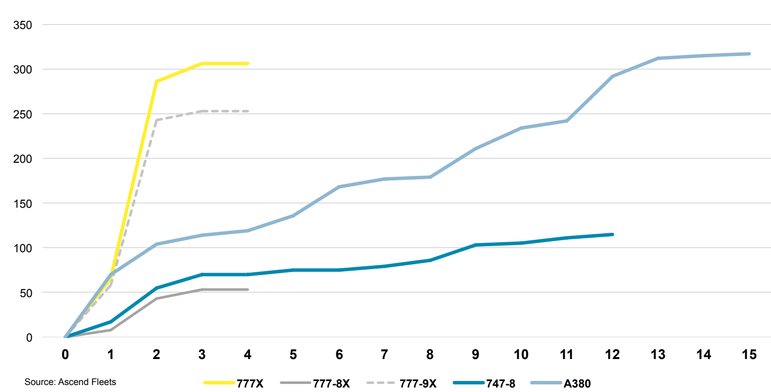
The A330-900 is doing better and enjoyed a very strong start. The current orderbook is made up of 176 orders from three lessors (total 55 orders) and five airlines (total 121 orders), of which Delta, with 25 orders, is the most prestigious. But AirAsia X's order is by far the largest, a whopping 66 of these twin aisles. Arkia, Garuda and TAP are the other A330-900 customers. During its ownership change, TAP replaced its original order for A350s with A330neos. Iran Air has signed a letter of intent for 18 aircraft.

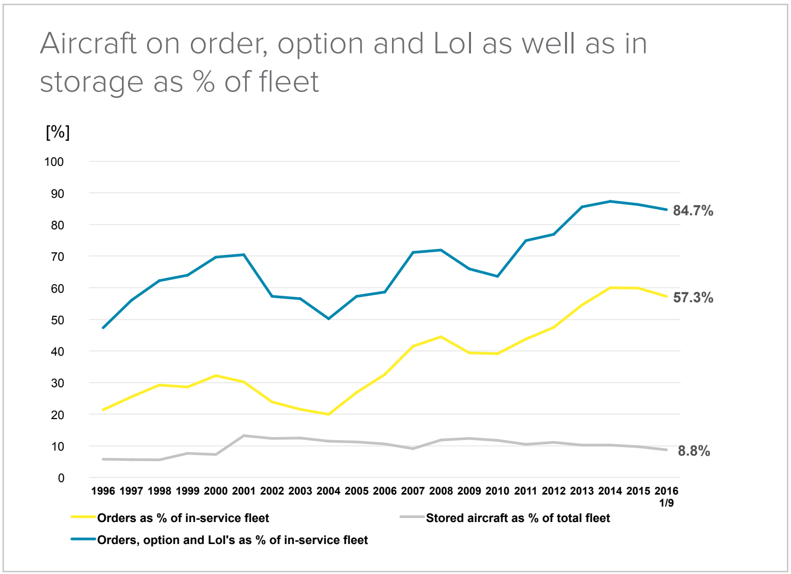
In the top segment of very large aircraft Boeing has two contenders, the 747-8 and the new 777X. Airbus puts the mighty A380 against this duo. Both the 747-8I and the A380 are struggling to find new orders. The Boeing product survives for the time being on a few orders for the -8F freighter version, but Boeing announced that 747 production will be reduced to half an aircraft a month from the current one a month, and even admitted it was reasonably possible that it could end production of the 747.

Airbus announced it would reduce A380 deliveries from 27 last year to 12 in 2018 to prevent a glut of unsold aircraft. A revamped version, dubbed the A380neo, increasingly seems a long-term project if launched at all. An improved version of the superjumbo is needed to remain competitive, in terms of cost per ASM, against the large twin-engined competition, especially the 777-9X.

Cumulative orders for (very) large twin-aisle jets

Incl. type swaps (1 = year of 1st order; recorded on date of original order)





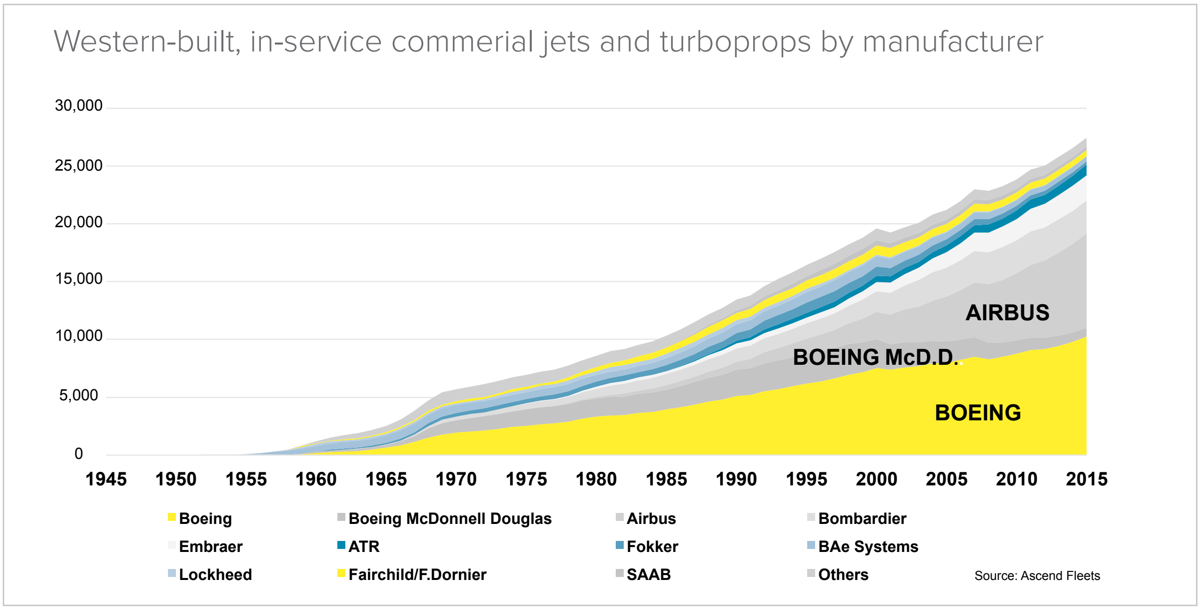
While several customers have reduced or cancelled their orders for the current A380, Emirates is eager to see production continue. Airbus seems to be focusing on increasing the seat density of the current A380 and improve its efficiency based on a higher seat count. Boeing's large twin, the 777, is not immune to the trouble in the large aircraft market either. Its current best seller, the 777-300ER, will be succeeded by the 777-9 towards the end of the decade and this is affecting demand.

Reportedly, Boeing will reduce 777 production from the current 8.3 a month to seven next year and 5.5 in 2018 and 2019. This will be a mix of 777-300ER and 777-200LRF models. Today, 777 production is believed to be suffering because of a combination of supplier issues and teething troubles in the new robotic production line called fuselage automated upright build (FAUB). This FAUB is seen as critical technology to produce the upcoming 777X. Like other aircraft families, the shorter version (777-8X) is not selling too well. With orders from Emirates, Etihad and Qatar for a total of 53 aircraft, it is staying far behind the -9X, which has sold 243 units plus 50 options to the same Middle Eastern carriers, as well as Cathay Pacific, All Nippon Airways, Lufthansa and unannounced customers. The 787-8 has been compared to the 767-200ER, but the 777-8X seems to resemble the 777-200LR ultra-long-haul niche aircraft.

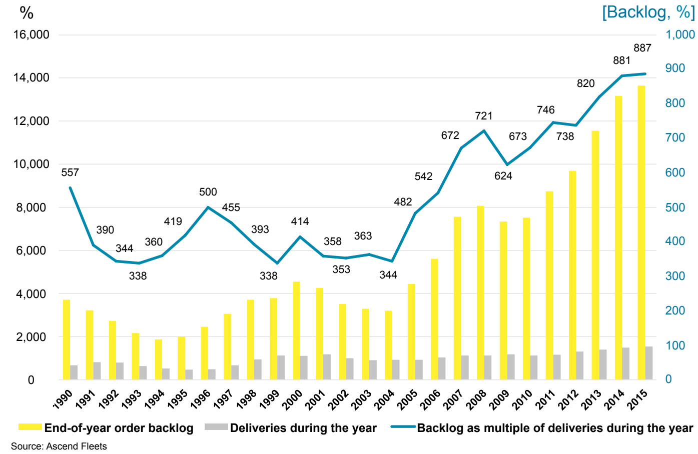
Boeing once more dominates the top end of the market with the 777-9X, although that could change if Airbus decides to launch the stretched A350-2000. Such an aircraft would partly undermine the current A380, which makes this a tough decision for the Toulouse based manufacturer.

Despite the disappointing sales volumes in the first months of 2016, the manufacturers do not have to worry too much because the global fleet is still growing fast. Stepping back and looking at the big picture, the rise of Airbus has been spectacular and it would be interesting to know whether 25 years from now a major Russian or – more likely – Chinese manufacturer will be in a similar position. Shorter term, Airbus, Boeing, Embraer, Bombardier and the other original equipment manufacturers can enjoy a backlog equal to 8.8 years of deliveries at 2015 production levels.

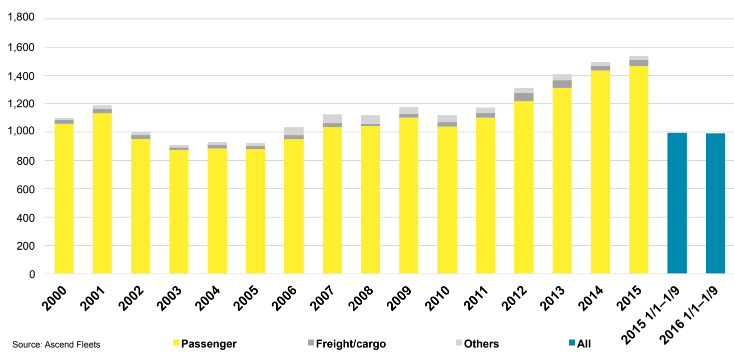
As mentioned before, the limits in production capacity can be seen as the saving grace for the aviation industry and one of the main



Commercial jet backlog development



Annual deliveries of western-built commercial jets
(all civil operators)



differentiators from a shipping market that still is in crisis. The shipping crisis seems not so much caused by falling cargo volumes, but more by unlimited shipping tonnage ordered by the shipping lines and pushed into the market by dozens of (subsidised) shipyards, eager to maintain jobs and keep their production going. At the end of 2015, the commercial jet backlog stood at 59.3% of the in-service fleet; as of September, this number has come down slightly to 56.7%.

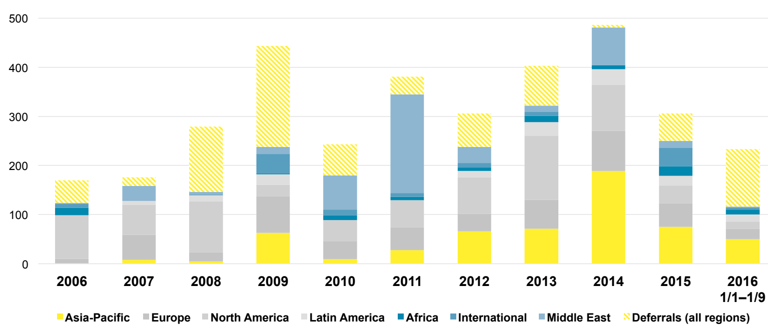
Whatever the cause – huge backlogs, low fuel prices, over-ordering or economic headwinds – there are now strong indications that the new equipment market has passed its peak. This is not dramatic and had to happen one day. For the time being, deliveries have far from kept pace with new orders. Despite a substantial lower order volume in 2015, the book-to-bill ratio was still more than 1.5. In 2016, up to 1 September, the book-to-bill ratio had come down to 1.07, the lowest level in many years. For the first eight months of the year, Ascend recorded 991 deliveries, slightly down on the 996 over the same period last year. Much of this seems to be because of delays in A320 and A350 deliveries. Statements from Airbus indicate that the company expects to “catch up” on deliveries during the rest of the year.

While not everything is good news in 2016, the bad news is fairly limited in terms of order deferrals and cancellations, which seems to indicate fundamentally the equipment market is still healthy.

Obviously, there is not complete transparency regarding order deferrals and cancellations, and it is unlikely all agreements to cancel or defer are included in the published industry statistics. In the past, orders from, for example, defaulted carriers such as Kingfisher Airleines stayed on the orderbooks for a long time, probably for legal reasons. Based on available data, the number of cancellations fell from 481 in 2014 to 250 in 2015. With still four months to go, the 2016 tally is less than half the 2015 number, with 116 reported cancellations. These include: Ilyushin Finance for 12 CSeries aircraft; Eastern Air Lines and Malaysia Airlines, each for 10 737-800s; and Philippine Airlines and TransAsia for A321s. In several cases, the cancellations of A320s or 737NGs were compensated by orders for new-generation single aisle models.

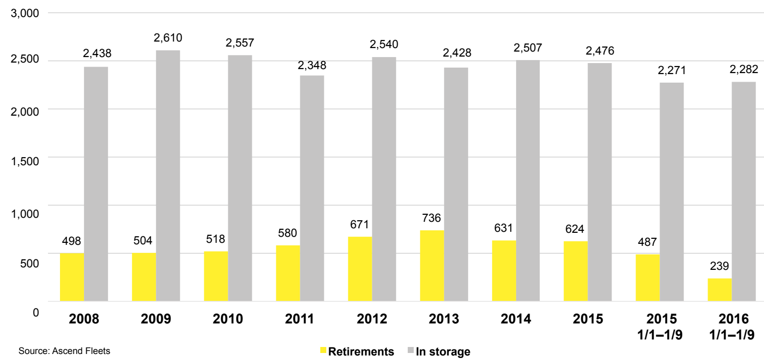
While the number of cancellations was relatively low, the number of deferrals increased from 56 for the full-year 2015 to 117 for the first eight months of 2016. Main contributors were reportedly Southwest for 66

Cancellations and deferrals commercial jets
(Western-built, all civil operators)



Commercial jets – storage and retirements

(Western built, all civil operators)



Source: Ascend Fleets

Max 8s, American for 34 A350-900s and Thai Airways for A350s and 787s. Flybe deferred some E-Jets.

For mid-life and ageing aircraft, the solid demand and low fuel cost limited the number of retirements from 624 in 2014 to 487 in 2015 and probably further down this year: at 1 September, the retirements had totalled only 239 commercial jets. The same trend is reflected in the storage number of 2,277 aircraft, which is about the same level as a year ago.

Used equipment market

For investors and financiers, it is important to analyse what the impact of the ongoing generation change is – or will be – on the used equipment market and, in particular, on aircraft values. If a new aircraft design offers better fuel burn and/or maintenance cost levels, the only way the older technology aircraft can remain competitive is by lower capital costs – ie, lower purchase prices or lower lease rates.

When it comes to new aircraft pricing, there is no public domain data with respect to, for instance, average net transaction price levels. As a proxy, we use independent appraiser data for zero-year-old aircraft, in this case from Ascend. We have reflected the difference between estimated mid-year market values. In the used equipment market, it seems an increasing gap is developing between aircraft with leases attached and naked aircraft.

With significant appetite among financial investors for commercial aircraft, aircraft with a solid longer-term lease currently command a premium. The potential buyers group for these income-generating assets is significantly larger compared with the number of potential buyers for off-lease aircraft. Off-lease aircraft sales may be targeted at airlines that are looking for short-term fleet expansion or sophisticated lessors and traders, which have the capability to arrange a new lease for the aircraft.

To analyse used equipment prices, we have compared Ascend's published current market value estimates for the mid-year points in 2013, 2014, 2015 and 2016. In the graphs, we have used constant age values for hypothetical aircraft of an age that can be seen as representative for the type. Consequently, the value dynamics do not take into account the value effect of the physical ageing of an aircraft.

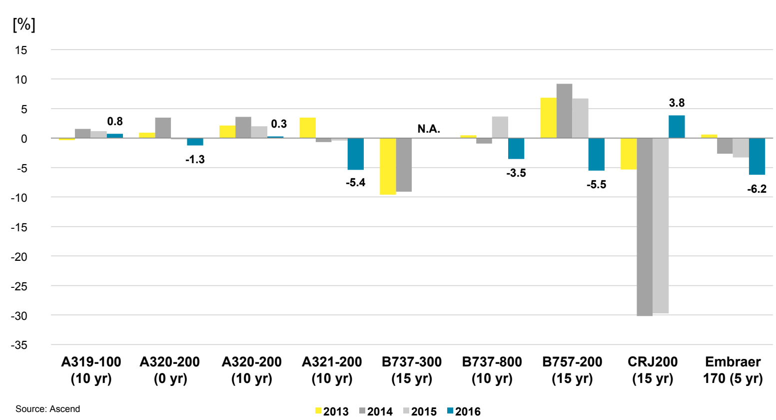
As airline-to-airline transactions with naked aircraft seem to have become a minority of the transactions involving commercial jets, a debate has started about the relevance of appraised values that do not reflect the value of the attached lease. It seems that especially aircraft lessors, investors and traders are eager to see appraised value, including the value of the lease and even the contractual return conditions.

As the market has become more competitive, it is important to recognise every dollar of value in a transaction. It is, however, challenging to appraise an aircraft with lease attached, without including all relevant details of the contract and applying an adjustment factor for the potential risk that an airline or lessee is not willing or able to meet all its contractual obligations. As an example, a 10-year lease contract with Lufthansa clearly has more value compared with a similar contract with a carrier on the verge of bankruptcy.

Given the various forms of transactions, it is difficult to quantify the size of the used equipment market. It seems simple airline-to-airline metal transactions are a minority now. In the lessor/investor market, individual aircraft with lease attached are traded, but also control over the asset-owning entity (eg, a special purpose company) can be transferred, leaving the legal owner unchanged. Next to individual aircraft,

Market value dynamics – single aisles

Aircraft of hypothetical constant age, changes in mid-year CMV's



Source: Ascend

portfolios consisting of multiple aircraft are traded among lessors and investors and, finally, entire leasing companies are traded.

Just focusing on the simple metal market, it seems that over the past few months, the market for modern single aisles has been strong.

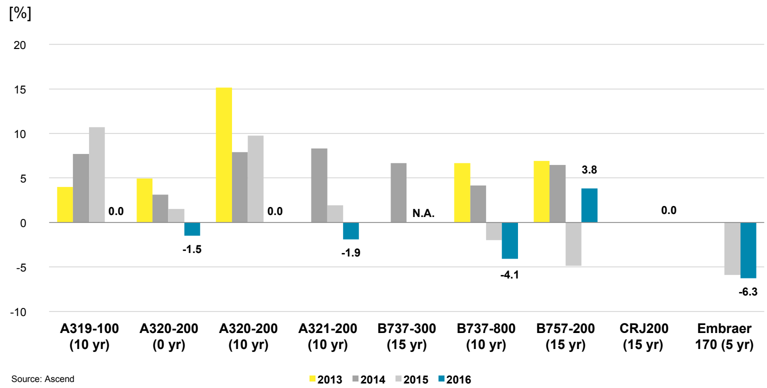
Current-technology aircraft such as the 737-800 and A320 can remain competitive versus the 737 Max and A320neo longer than originally anticipated because of the lower fuel cost.

While again difficult to quantify, the impression is that lease contracts for NGs and Ceos are more frequently extended, giving the airlines the combined benefit of lower lease rates/capital cost and modest fuel cost. The flip side of this is that operators that did not commit to Neos or Maxs in the years of high fuel prices can now probably negotiate a much lower lease-rate premium for the new-technology aircraft. In terms of storage numbers, it is interesting to note that over the past two years, we have not seen a dramatic increase in stored (in-production) single aisles. Obviously, the number of stored aircraft can diminish because aircraft are broken up, as well as return to service. The only single aisles that have seen a significant increase in stored fleets between 1 September 2014 and 2016 are the 757 and regionals, in particular CRJs and ERJs, as well as E190s and E170s. The latter two types may, however, return to service in the short to medium term.

The twin-aisle market seems to be much more challenging, with potentially significant changes in the perception of some popular types. A few years ago, it was obvious that aircraft such as the 747-400 and A340 were falling out of favour. Despite some A340-600s finding new homes in Iran, values went down, or rather it became more widely recognised at what very low levels these aircraft were trading.

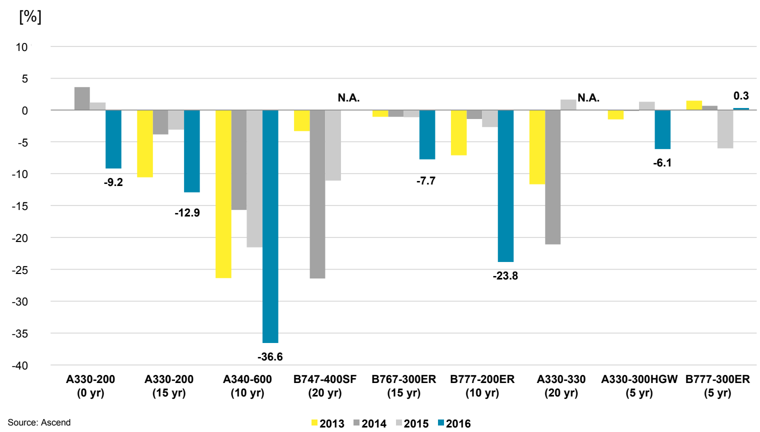
Passenger 747-400s are rapidly disappearing from the skies but even the freighter version is in surplus. The 747-400SF, as a converted freighter, does not offer the benefits of the nose-cargo door that a factory-built freighter brings, and both the

Market lease rate dynamics – single aisles
Aircraft of hypothetical constant age, changes in mid-year CMV's



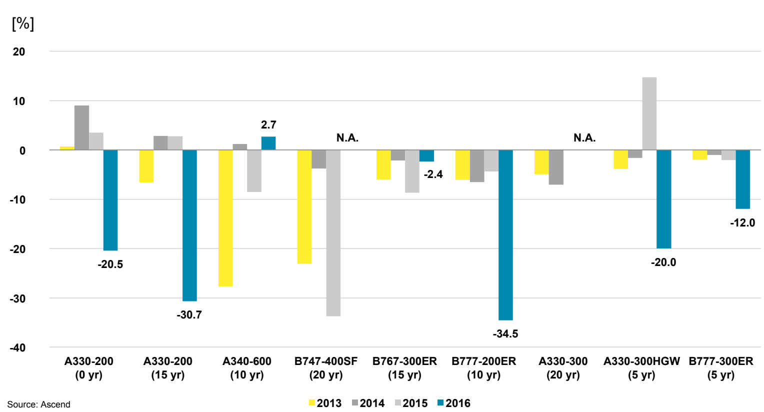
Source: Ascend

Market value dynamics – twin aisles
Aircraft of hypothetical constant age, changes in mid-year CMV's



Source: Ascend

Market lease rates dynamics – twin aisles
Aircraft of hypothetical constant age, changes in mid-year CMV's



Source: Ascend

Boeing-converted BCFs and the IAI-converted BDSFs were parked in large numbers as a result of the crisis in the air cargo market. A recovery for this type seems unlikely.

For younger 747-400(ER)Fs, the longer-term outlook may be more positive. Should Boeing decide to discontinue 747 production, -400(ER) Fs and 8Fs are the only remaining western-built nose-loaders. Demand for this feature in the outsized cargo market is likely to continue for many years.

The most interesting – and relevant – twin-aisle families for the financial community are Airbus's A330 and Boeing's 777. Both types have enjoyed significant popularity with lessors, investors and bankers. The share of operating lessors in the A330-200 fleet, currently at 46%, is almost at single-aisle level. This percentage is lower for the A330-300HGW, but still a respectable 39%. The 777-300ER comes close with a lessor share of 31%, while the 777-200ER fleet is predominantly owned by the airlines: the lessor managed percentage is just about 22%.

Within the A330 family both older and newer vintages still underwent a downward value correction of about 10%. Newer A330-300s have seen slightly less negative development over the past year. The number of A330-200s in storage increased from 16 to 37 between 2014 and 2016. The A330-300 went from nine to 26. It remains to be seen how values for these two twin-aisle families will develop in the coming years, with a significant number of lease-returns scheduled until the end of the decade.

Larger twin-aisle jets have proven to be challenging in terms of remarketing potential, partly because top-tier airlines generally prefer new equipment and partly because of the high transition cost. New interior parts are expensive and with interior manufacturers not even capable of delivering interior parts for new aircraft in time, reconfiguring a used twin aisle may be very time consuming. For the A330-300, cargo conversion may be a realistic option, although history has shown that cargo conversion programmes do not really help residual values of feedstock aircraft.

Over the past year or so, the 777-200ER was probably the aircraft that was hit hardest. Between September 2014 and 2016, the number of stored 777-200ERs increased from five to 40 unit, one of the biggest increases in absolute terms. The type, very popular with the financial community only a few years ago, really fell off the cliff, in particular the Rolls-Royce-powered aircraft. While for an aircraft such as the 777-200ER, it is mainly the airlines that will have to find an end-of-life remarketing solution – for example, by operating the type for longer – for the 777-300ERs, many lessors and/or financial investors will be confronted with the task of remarketing.

It cannot be excluded that some of these aircraft will not find homes anymore. At Boeing Capital Corp conferences earlier this year, the audience (aircraft financiers, lessors, investors, etc) saw widebody remarketing as the most important challenge for lessors in the years 2016-17. In London, 50% of the voters picked this option, in New York 45% and in Tokyo 32%.

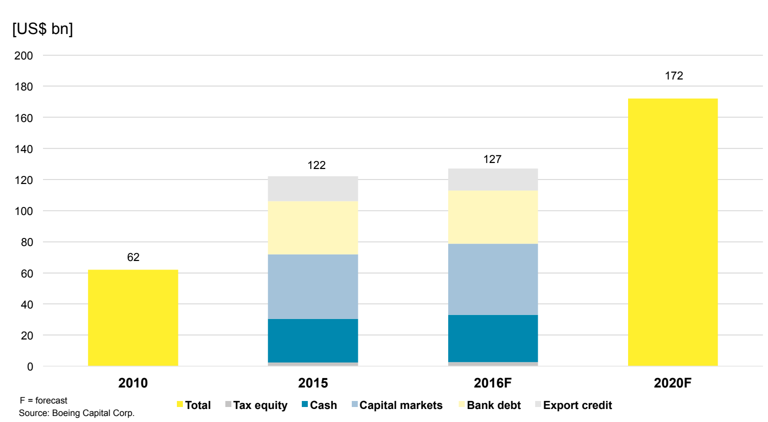
In line with this perception, lease rates seem to have come down faster compared to aircraft values. The A330 and 777-200ER models fell by an estimated 20% or more. The 777-300ER has not suffered as much yet, but this is also a type that needs to be watched in the coming years.

Finance environment

During the same Boeing Capital conferences, the majority of voters believed there was too much capital available for aircraft financing. Some 46% of voters agreed with this in New York, 56% in London and 60% in Tokyo. Only 4% to 6% of voters believed there was a shortage of capital. This strong – some would say "overheated" – aircraft finance market ensures that aircraft with decent leases attached continued trading at very high levels.

As mentioned before, this is a completely different market from the metal market, where naked aircraft are bought and sold. Referring to Boeing's benchmark traffic-light chart for the aircraft finance market, it seems that the good times are continuing, except for export credit. Airframe and engine manufacturers are also yellow, which probably indicates that there is no real desire from the manufacturers to step in. In several cases, however, the original equipment manufacturers were forced to help carriers where ECA/ Exim finance was not forthcoming or delayed. For the commercial banks, these situations also offered opportunities for bridge facilities, awaiting the opening up of Exim/ECA again. The uncertainty about ECA/ Exim take-out financing also has an impact on pre-delivery payment (PDP) financing. The attractiveness of this type of facility for financiers generally is based on the fact that the asset

Financing forecast for global commercial airplane deliveries in 2016

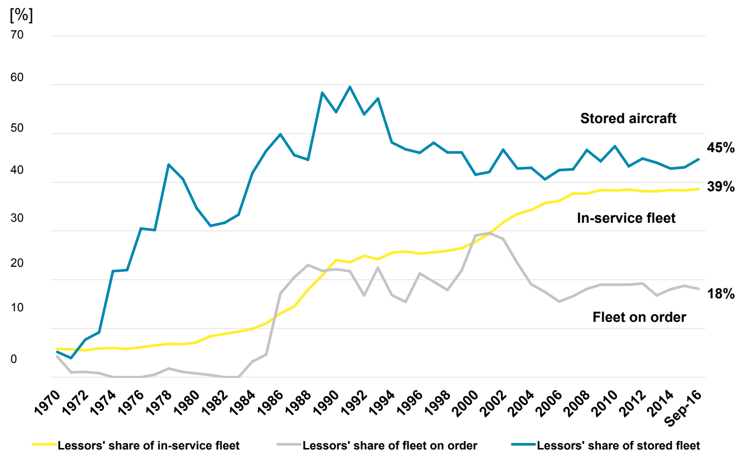


will be in a relative safe jurisdiction before delivery (France, Germany, the US, etc) and that, in most cases, there is a reasonable probability that there will be take-out financing at the time of delivery. Apart from several legal issues, the main risks materialise if the original customer defaults before the delivery date. The OEMs tend to set the assignable purchase price (the purchase price for which the PDP financier can take over the asset in case of a default by the original customer) often at absurdly high levels, compared to the agreed real purchase price. While this policy stems from a concern that financiers should not benefit from a default of the original customer, it means that, in many cases, the airline customer has to inject significant amounts of equity into the deal. While for strategic aircraft types, the OEMs are likely to help out the PDP financier, but this may not always be the case. Under such a scenario, reconfiguration costs could be an unexpected and unwelcome additional cost element.

Overall, however, there certainly is no more funding gap in the aviation industry. In the Boeing chart, leasing companies, capital markets, private equity/hedge funds and commercial banks could be printed in the brightest green available. A Boeing survey indicated that industry insiders expect operating lessors to be the largest source of aircraft financing in three years' time. The percentage ranges from 46% in the New York survey, 51% in Tokyo and 56% in London. Currently lessors manage 39% of the commercial jet fleet (western-built, all civil operations), 45% of the aircraft in storage and only 18% of the jets on order. Based on the survey, there still apparently is room for growth in aircraft leasing.

In all three financial centres there seems to be an agreement that next to leasing, the capital markets will fulfil 23% to 25% of the finance need, with the remaining difference largely made up by commercial bank debt. It should be taken into account that lessors rely largely on capital markets (53%) and internally generated cash (26%). Bank funding has been reduced to 16% of lessor funding.

Lessors' share in global fleet of western-built jets

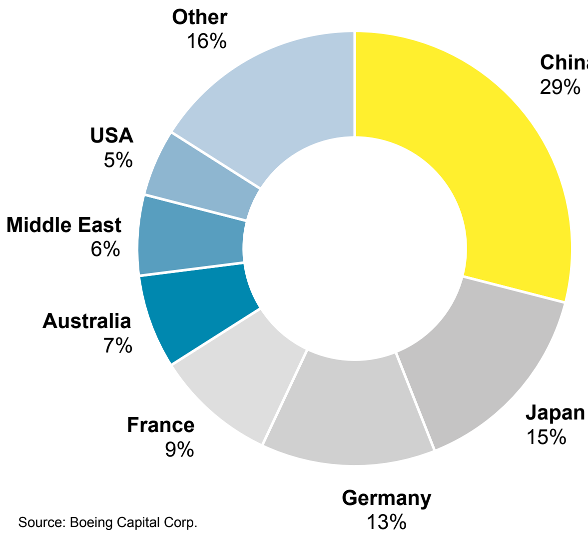


Source: Ascend Fleets

	Lessor / Manager	In-service	Stored	On order	Total
1	GECAS	1,254	175	249	1,678
2	AerCap	1,163	35	404	1,602
3	Air Lease Corporation	273	4	374	651
4	SMBC Aviation Capital	395	3	202	600
5	BOC Aviation	274	2	210	486
6	CIT Aerospace	323	11	132	466
7	Avolon Aerospace Leasing Limited	278	8	133	419
8	BBAM LLC	399	1	0	400
9	Aviation Capital Group	253	8	103	364
10	ICBC Leasing Co	285	7	60	352
11	AWAS	254	3	15	272
12	Boeing Capital Corp	190	47	0	237
13	Macquarie AirFinance	190	3	40	233
14	Aircastle Advisor LLC	179	5	25	209
15	ALAFCO	59	3	125	187
16	CDB Leasing Company	155	0	26	181
17	China Aircraft Leasing Limited	72	1	100	173
18	ORIX Aviation	161	10	0	171
19	Nordic Aviation Capital	110	10	20	140
20	Jackson Square Aviation	118	0	0	118
21	BoCom Leasing	114	0	1	115
22	Standard Chartered Aviation Finance	94	5	2	101
23	Undisclosed bank / broker / lessor	53	42	0	95
24	Apollo Aviation Group	90	3	0	93
25	Castlelake	82	8	0	90
	Total fleet size all lessors	**9,188**	**1,025**	**2,455**	**12,668**

Source: Ascend Fleets

Global aircraft bank debt markets for airplane deliveries (2016 forecast)



Source: Boeing Capital Corp.

For the survey period, export credit is seen at an insignificant 1% to 2% of total market funding (airlines and lessors). The latter implicitly reflects the optimism in the industry. Export credit agencies had to come to the rescue during the 2008-10 crisis to prevent airlines falling into the funding gap. A repeat of this scenario is apparently not expected.

Again, according to the benchmark Boeing figures, the industry will need an estimated $127 billion to pay for the 2016 commercial jet deliveries. While this is a staggering amount, it now looks like this will not be a problem. Asian investors, in particular from China, have indicated they are eager to invest billions of dollars each into commercial aircraft financing. Chinese insurance company Ping An reportedly has indicated it is planning to invest up to $10 billion in aircraft financing and leasing. Bohai Leasing, part of HNA Group, does not shy away from investing a few billion in commercial aircraft either. After having set up Hong Kong Aviation Capital, the Chinese travel, tourism and logistics company acquired Avolon for a reported $2.5 billion.

Recent reports indicate that HNA Group, as well as Ping An Leasing, were among the prime candidates to take over the aircraft leasing arm of CIT Group for an estimated $3 billion to $4 billion. Should HNA win – which at the time of writing seemed very likely – the combined HKAC/Avolon/CIT fleet will move up to third spot in the lessors ranking, immediately behind mega-lessors Gecas and AerCap. In terms of fleet size, Gecas still takes top spot; however, based on estimated fleet value, AerCap should be number one, according to Ascend, with an estimated fleet value of $31.6 billion compared with $30.9 billion for Gecas. Even if the Avolon and CIT fleets are combined, this entity would be in third position, but with just over half the fleet size and half the fleet value of the number two.

It seems there are hardly any limits to the appetite of Chinese investors to acquire commercial aircraft. They are eager to invest outside their own country and into dollar-denominated and dollar-earning assets. Aircraft are expected to offer protection against currency movements and are expected to offer acceptable yields in a world where interest rates have hit rock bottom and, in some cases, even turned negative.

Will this new gold rush come to a happy end? Experienced aircraft traders complain that aircraft transactions now take place at unrealistically high price levels. Airlines indicate they get extremely competitive offers for sale and leaseback transactions, from less experienced entities that apparently have huge risk appetite and/or are counting on bullish residual value assumptions. As indicated, probably the fundamental economics of these transactions are less important than the protection they offer against exchange rate risks and other monetary risks.

Japanese investors, North American private equity firms and pension funds also make significant investments in aircraft portfolios. These latter categories, in many cases, transfer the risk to others, including private investors and employees who expect to benefit from pension schemes in future years. For the fund managers, it is very difficult to find any meaningful investments that generate acceptable yields to fulfil pension obligations or offer competitive investment returns. Hopefully, investors have taken into account that – contrary to stocks and bonds – aircraft are subject to technological risks.

Low fuel costs are extending the lives of midlife and older-generation aircraft, but should fuel return to previous levels, the old-generation aircraft will be rapidly replaced by more efficient new-technology equipment. The fact that lessors and financial investors own a significant share of the world fleet may facilitate a relatively quick transition, as airlines will not have to deal with book losses on these leased aircraft.

While much of the investment funds are aimed at (near) new equipment, significant investments are now also aimed at what once was a niche market: mid-life and end-of-life aircraft. Anticipating bonus income from lease extensions, monetary return compensation for below-agreed aircraft condition and anticipated proceeds from aircraft and engine part-out, should result in above-average returns.

With reported asset-backed securities transactions for mid-life and older aircraft from Awas/Kahala (average age 16.4 years), Apollo (14.2 years), Element/BBAM (6.6 years), Och-Ziff/BOC Aviation (4.6 years), Castlelake (15 years) and last but not least KKR/DVB (5.6 years), this can no longer be called a niche market.

The volume of enhanced equipment trust certificate (EETC) transactions reported reached $6.7 billion during 2015, with the majority of paper coming from US majors American, Delta and United, plus Spirit. Air Canada and Latam also had access to EETCs. An interesting exception was Turkish Airlines. After the political and military turmoil in Turkey, it seems unlikely such a transaction can be repeated.

So, commercial banks have to compete against a wider and deeper group of alternative funding sources, with the emphasis on Asia.

Things are changing as well in the commercial banking world. Decades ago, when aircraft financing was still in its infancy, the big US banks dominated the market. Later, the centre of gravity moved to Europe, followed by Japan. According to Boeing Capital estimates, China will be the major source of bank debt for commercial aircraft deliveries in 2016, with 29% of the market. Japan will still be a respectable second (15%), followed by Germany (13%), France (9%), Australia (7%), the Middle East and USA (both 6%).

Outlook

So, with all of the above in mind, can we now answer this simple question: "where are we in the cycle?" Yes and no. The complicating factor is that in our industry there are many cycles. To start with the simplest cycle, the technology cycle, it seems we are right in the middle of the fleet-wide generation change. Arbitrarily allocating new-technology aircraft types, in the regional jet market, the Superjet 100 is now a small but established aircraft. CSeries also has entered into service but is still at an early stage. The E2 and MRJ are still to enter service.

In the single-aisle market, the A320neo has entered service, but the 737 Max has not. Looking East, the Russian MS21 and Chinese C919 will also take a few years before service entry. In the twin-aisle market, the 787 and A350XWB are in service and can be spotted at an increasing number of airports. The A330neo and 777X are still in the pre-prototype phase. In the superheavy category, it seems the relatively young 747-8 and A380 are already past their prime and both face an uncertain future. Overall, it can be concluded that we are about halfway through the generation change, or, halfway through the technology cycle.

The flipside of all the new aircraft introductions is the fact that older-generation aircraft will reach the last-of-the-line stage soon. Based on historical experience, this group of late-production aircraft generally loses value much faster compared with early- and mid-production aircraft of the same type. Anybody investing in these last-of-the-line aircraft should take this risk into consideration.

There are three elements that may be in favour of this group. First, demand for air travel is still growing at a solid pace. Second, low fuel prices extend the viability of these – relatively less efficient – aircraft for the time being. Third, low inflation should result in modest delivery price increases as the result of contractual escalation clauses. Although the cost index for the labour element is still increasing, material costs show negative index developments. Logically, delivery prices for last-of-the-line aircraft should not increase as fast as originally feared.

Staying with the metal, it is obvious that we are already in a downward phase with respect to sales volumes, whatever the explanation for this. Given the huge backlog, it is easy to agree with statements from Airbus (and implicitly Boeing) that "aircraft manufacturing is no longer a cyclical business". Even in case of a mild downturn, the OEMs seem to have enough of a backlog to keep the factories going for a few years, under the conditions that (i) there will still be funding available to pay for the delivery of all these shiny new aircraft and (ii) the market share battle will not result in further short-term increases in production rates. After all, production discipline in commercial aviation is the only thing standing between us and chaos (such as a shipping-type crisis).

Moving away from the metal, it seems airline profitability is close to peak levels. Fuel cost savings are slowly distributed to other stakeholders, including the travelling public and employees. The fuel price remains unpredictable, but assuming another fuel spike, it seems very likely that the world's airlines could dive into the red again. Let us face it, if you cannot make money today as an airline (and several airlines still cannot) when will you?

Finally, aircraft values and the used equipment market. During the boom days of the 1980s, we used to say, "if my garden shed had wings, I could sell it for a million". While the decisions justifying the flow of billions from North American pension funds and private equity firms, as well as Asian investors, are taken by smart people, somehow this gives many observers an uneasy feeling.

Historic examples that spring to mind include Tulip Mania in the mid-1600s, the dotcom bubble in the late 1990s, the sub-prime mortgage crisis of 2007 and the still ongoing crisis in the shipping business after a synchronised boom that ended in 2008.

While near term there are very few signs of an aviation crisis, the adage "the higher they climb the harder they fall" has to be kept in mind. Already we see clear signs of weakness in the twin-aisle market where the technology change is taking place.

Airlines and investors are already confronted with disappointing residual values for their expensive twin-aisle aircraft. So, for twin aisles we already seem to be on the way down. Single aisles still have some time to go, but already we see some of the smart money trading out of their older asset.

Geopolitical, macroeconomic and energy-political factors will drive the major changes but, unfortunately, the timing for these remains unpredictable.

To end on a more positive note: liquid, new-generation aircraft, such as the 787-9, A350-900, A320neo and 737 Max appear to be great investments for many years to come and will almost certainly survive the next downcycle(s). For those that really have the stomach for a bit of risk, why not try a 747-400 nose-loader?

Making technology (truly) work for you

Joey Johnsen, principal at Zeevo Group, explores the unique technology demands of the aircraft leasing industry.

We have all been there – a customer, supervisor, auditor, investor or bank – they all need information and they need it now. You may have just received a request from marketing for 52 technical specifications, or for the owned and/or current maximum takeoff weight (MTOW) on a portfolio of aircraft. Maybe you need to determine which aircraft your contractual engines are attached to and if it is appropriate to reimburse the reserve claim that has just come in from a lessee. Perhaps your company wants to sell a group of aircraft and you have been asked to forecast all future maintenance events for the next three to five years, not to mention potential reserve payouts, possible lessor contributions and any other financial obligations. What happens next is… panic! And it could be hours, days or weeks before you can deliver on that simple request.

The aircraft leasing industry is more complex and nuanced than other industries, which is why every facet of aircraft leasing requires industry knowledge and experience. There are contracts, records, technical specifications, financial statements, appraisals, utilisation, rental payments, debt payments, forecasting, maintenance reserve reimbursements and reserve balance management. There are components, capabilities and entitlements to track (MTOW, thrust, winglets), life-limited parts (LLPs) to price, and more.

Generalist service providers will have you believe they have all of your needs covered; only an industry specialist, who has been there and done that, can give you the certainty when it comes to optimising processes, designing and implementing internal controls, designing and implementing systems, and extracting, transforming and loading data into reporting systems.

Some companies have integrated systems – others have what has become a *frankensystem*. Regardless, both the integrated systems and the *frankensystems* have limitations when it comes to accessing the right data and information at the right time. Irrespective of whether you have an integrated system, a *frankensystem*, or something in between, you likely have a recognised need for improved information management.

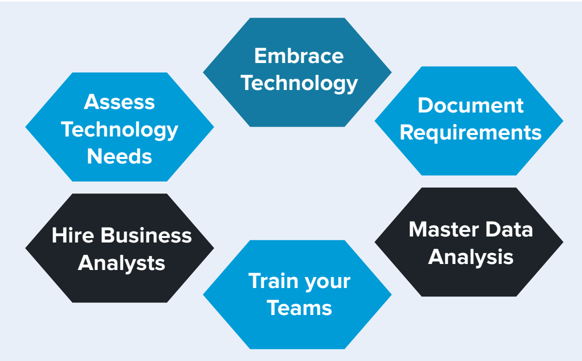
It is likely that your current teams with their full-time day jobs do not have the time or the tools to get you out of your current situation. You need to become more responsive to your internal and external customers or risk falling behind.

Some of the most common issues lessors face today include:

- embracing the available technology;
- understanding (and documenting) business processes and requirements;
- mastering data analysis with business intelligence, reporting and analytics that empower the decision-making process;
- training team members;

- hiring dedicated application support/business analysis team members; and
- periodically assessing technology needs.

In the near term, there are a few things you can do to minimise your current limitations:



Embrace technology

Contract and asset management systems for aircraft leasing can be powerful when you are sitting at your desk and are familiar with the menus and screens that help to get the information needed. However, it is a different story if you need a custom report, data dumped to Excel and easily pivoted, or access to that data on-the-go from your mobile device.

Members of technical and marketing teams are travelling the globe – closing deals, transferring or repossessing aircraft. Whether on the road or in the office, they need tools and reporting systems that function in any environment. An often-heard sentiment from travelling professionals who are used to fast and pervasive network connectivity is: “Have you tried to use the internet from far flung places with limited connectivity?”

Your technical or contracts teams might be in their comfort zone running around from office to office with a clipboard, checking off boxes as to whether a task is complete.

But if you want them to free up time to focus on strategic parts of your business and enhance your internal controls you might consider an easy-to-implement, configurable workflow tool that will automate task management and related approvals. Defined workflows ensure better operational risk management and enable you easily to manage clients, tasks, reimbursements, schedules and projects in real time, from anywhere in the world, for maximum efficiency gains.

Your treasury team might be accustomed to managing cash from a spreadsheet, but it should not take all day to determine your cash position. Wouldn’t it be nice to have multiple views of your cash positions without having to create pivot tables, linked workbooks and VLOOKUPS (an Excel database/list function)? Dynamic cash position tools allow you to have multiple views and assist in optimal funding and investing decisions with the click of a button. Faster and more efficient cash reporting frees up your treasury team to focus on more strategic tasks.

The status quo for many accounts receivable teams is manually logging into each bank account daily – or multiple times daily – to check for and apply payments. Imagine the time that can be saved by connecting each of your bank accounts to an integrated cash management system so that they can be managed from a single, integrated system.

Executing the best deal when placing a new or used asset, or selling, consigning or parting out an end-of-life asset, requires a full picture of an asset’s current state and all of the prospective deals on offer.

Leading lessors benefit from a central, technology-enabled collaboration tool/repository to record the relevant asset leasing, pricing, resource assignments and sale, consignment or part out information for each prospective deal. Similarly, cross-functional teams can see the status of each prospective deal as it steps through an automated asset placement workflow.

Your new deal is negotiated and walked over or emailed to your legal department for finalising. World-class legal and marketing teams collaborate online through the use of automated workflows and approval tools to track the status of a deal through the legal documentation process to signed agreement(s). Similarly, with the click of a button they can display the status of an asset on their fleet summary so there is never any doubt about the current status of any asset or deal.

To be successful in your organization, your technology-enabled solutions need to integrate easily with each other, and with other industry-leading solutions such as DocuSign, various CRM tools, document management systems, and more. Integrated solutions improve your teams’ agility, internal control and also enhance engagement.

Your customers, managers and teams increasingly want to see enhanced data, reports and analyses. On-demand dashboard analysis personalised by each user and available on all devices (eg, iPad, iPhone, Android, Microsoft Surface, Windows phones, laptops, desktops) is the new normal. Your competitors have the ability to do a deal on the road using a mobile device, or track all relevant information related to return/delivery schedules by date or resource electronically. This includes real-time project schedules and status notes, or assisting a customer with fleet planning by touching an airport on their device and viewing a range circle by aircraft type – you should have the same.

Investing in information technology should be a strategic plan for your company. There are many options for software, including software as a service (SaaS)/cloud-based options available in areas such as technical and asset management; contract management; maintenance reserve fund management, workflow management, contact management, and reporting and analytics. Subscription-based services can provide hosting, enhanced internal controls and better functionality with a lower total cost of ownership.

By embracing technology, you can optimise decision-making, minimise risk, enhance control and increase your overall operational productivity. All technology has a learning curve, but the time spent implementing industry-specialised technology yields exponential benefits.

Understand your business processes and requirements

The better your processes are, the less you need to think about and focus on the non-strategic parts of your business. Lessors realise twice the business value from systems with high end-user adoption than from poorly adopted systems. The most effective way to ensure that end-users adopt and embrace your systems is to incorporate their needs early in the design phase of the project.

To get the highest value from information technology, a thorough understanding of your business processes is essential. We all know of companies and people who buy technology and then force their business processes to fit the technology. Companies that make the most of their technology start by understanding and documenting their business processes and requirements first and then finding the technology suited to them – they did not buy technology and force their processes to fit the vendors' idea of how a business process *should* work.

If you find yourself continuously thinking about replacing your contract and asset management system, it is time to invest in documenting your process and requirements. Work with your vendors to match existing or planned functionality with your company's business process needs.

This might include:

- creating process flow diagrams;
- preparing risk and control matrices;
- authoring narratives, including functional requirements documents; and
- drafting policies, procedures and other process-related documents.

And much more. With a thorough understanding of your business processes and requirements, you can help your organisation quickly prioritise, align and mobilise its resources.

Master data analysis

Mastering data analysis can help your business generate higher margins, maintain internal control and gain a meaningful competitive advantage.

The cost of computer hardware and cloud services continues to decrease, so it seems that the human element stands in the way of companies being more data- and dashboard-driven. To keep up with the competition, analytical skills must be developed in all of your people, not just a few professional data analysts.

Data analytics is often misunderstood as mere descriptive analysis (what is). The real value lies in predictive (what will be) and prescriptive analysis (what should we do?). Predictive analytics and prescriptive analytics provide actionable insights for lessors.

Leasing companies are looking to increase their competencies in these areas to provide value to their organisations and to their customers. Predictive analytics integrates data from various sources (such as account and general ledger systems, contract and asset management systems, treasury management, purchase order and customer relationship management systems) to predict future outcomes.

One of the most common applications of predictive analytics is the forecasting of future maintenance events to determine the remaining reserve balances at the end of the lease. Prescriptive analytics uses a combination of sophisticated optimisation techniques to suggest the most favourable courses of action to be taken.

The skills that you and your team need differ depending on whether you will produce or consume information. Analytics production includes sourcing relevant data and performing analyses. Analytics consumption is using the insights gained from analytics in decision-making. In the same way that a satisfied diner does not know exactly how the chef prepared the inflight meal, you do not need to become a data scientist or computer engineer to benefit from business intelligence and enhanced analytics[1].

Train your teams

Companies often install new technology without properly training employees. Whether it is a mobile phone, a contract and asset management system, or a Microsoft product such as Excel or Outlook (have you discovered the wonders of Microsoft Quick Parts?), most people use less than 20% of the functionality of those products because they have not been properly trained.

Lack of formalised training keeps professionals from leveraging the full productivity available to them from the tools they have at their disposal. Zeevo Group keeps its employees up to date with a lean, internal back-office technology team.

According to John McCartney, Zeevo Group principal: "The decision to have a small internal help desk team is supported by our internally created learning centre, an online, on-demand resource where employees can get answers to their IT-related questions. In addition to on-demand classes, employees have user manuals and access to vendor-specific guides and videos to aid in the learning process."

While the initial training provided by your vendors may have served its initial purpose, getting new hires up to speed on your applications is key to continued success. Creating content-rich training programmes that can be delivered on the ground, or remotely over the web for geographically dispersed locations may enhance productivity and user engagement.

Hire dedicated application support/business analysis team members

No matter your fleet size or headcount, you need to have someone in-house who can handle application support.

If your firm is too small to employ a full-time support team, make sure you have someone on your internal team who is technically minded and can work with outside consulting firms and software vendors when problems arise.

Your application support/business analysis team members identify, develop and test requirements and information management needs across your business process and information technology domains. They are crucial when selecting new solutions, enhancing existing processes, executing your strategy, planning for upgrades, addressing your backlog of user requests and documenting your requirements for unmet business and technical needs.

Periodically assess your technology needs

Data volumes are growing at an annual rate of 60%, but the buzz about Big Data often forgets to mention the reality that, as the volume of data explodes, it becomes harder, not easier, for knowledge workers to make sense of it. Almost two-thirds of them lack the skills and judgment to exploit information. Paradoxically, as companies amass more data and spend more on analytic tools, they face a growing insight deficit. If this deficit is not overcome, greater access to information and analytic tools may do more harm than good[2].

It is important to review your information management and technology needs periodically to realise IT enablement opportunities related to business intelligence, collaboration and customer interfaces.

If your current strategy is to postpone needed technology refresh investments, you might be headed toward significant increases in maintenance costs and decreases in infrastructure reliability.

A regularly scheduled review and technology refresh will help keep your data secure, to identify your technology weaknesses and to make certain your team is adequately enabled to deliver on your vision. A number of cloud-based services exist that allow users to store files online where they can be accessed from multiple devices or even shared with colleagues or customers. This is immensely helpful if you are looking for a way to transfer files between computers, access important documents from your PC on your phone, or share items with your contacts. But wait. Did you and your team members who created those free accounts read the terms of service? It is important to know who owns the information after it is uploaded to the cloud.

A technology refresh results in a roadmap that can help fulfil a number of goals. It provides visibility into upcoming investment needs and identifies cross-technology implications of migrations (eg, your planned upgrade of the general ledger package may impact your current contract and asset management system). It can also highlight foreseeable risk scenarios (for which you can plan risk mitigation strategies).

According to Karen Curtis, Zeevo principal and former ILFC[3] information technology executive: “No lessor wants to be in a position where they are providing a current or prospective lessee the wrong MTOW or availability date.

“Similarly, lessors do not want to be in a position where they are notifying a lessee of a potential repossession due to a payment default, only to find out their accounts receivable data was not up to date. In order to maximise or even maintain your market position, it is important to stay on top of your game when it comes to technology, data and information management.”

Keep in mind, the same people who were involved with getting you into your current situation may not be best suited to get you out. It may be time to turn to experts to help identify, develop, and test requirements and information management needs across business processes and information technology domains.

Take the next step

The next time you receive that mountain of data requests, there is no need to hit the panic button. Instead, click on your new technical portal to generate the technical specifications you need. Take a look at your newly designed fleet summary report to get the most updated owned and/or current MTOW on a portfolio of aircraft. Login to your workflow tool to check the status of your lessees’ reserve funds and related claims. Deliver the results and your team is on its way.

The cure for panic is confidence, and confidence comes from having an integrated technology system designed for your industry. As your dad used to say, any job is simple if you have the right tools. Your newly designed (or refreshed) approach to making technology *truly* work for you will not only make your job easier. It will make your company more responsive to change, more connected with customers, more efficient and, ultimately, more profitable. Across continents, business units or systems, you are clear for takeoff on reaching your goals and achieving your vision. ■

In brief

- **embrace technology**: integrate your systems, enable remote connectivity, and remember – a checklist is a start, but it is not a workflow;
- **document business processes**: a documented understanding of business requirements will help match your needs to a system’s functionality;
- **master data analysis**: deliver the right information at the right time to run the business;
- **train your teams**: create training programmes that can be delivered on the ground, or remotely over the web;
- **hire dedicated application support**: internal resources for managing application support and business analysis will put you ahead of the curve; and
- **assess technology needs**: provide visibility into investment needs and identify cross-technology implications of migrations.

Joey Johnsen is a principal with Zeevo Group LLC in Seattle, Washington. She holds a master of business administration degree focused on technology management. She is a certified information systems auditor, certified in the governance of enterprise information technology, a project management professional and a licensed certified public accountant.

[1] *Tschakert, Norbert; Kodina, Vasarhelyi, Miklos (2016). The next frontier in data analytics. Journal of Accountancy, 58-63*

[2] *Information Management. IT Fundamentals. CEB CIO Leadership Council: page 2 [PDF file]*

[3] *As of May 2014, International Lease Finance Corporation became AerCap*

Engine leasing and MRO: an independent perspective

With increasing original equipment manufacturer presence in the engine aftermarket, the leasing world is changing. Customised solutions are the buzzwords today for lessors and lessees. Martin Friis-Petersen, managing director MTU Maintenance Lease Services, discusses developments and trends.

What are the current trends in the engine leasing market?

Martin Friis-Petersen: Engine leasing is an attractive, liquid market, and the number of interested parties and active players is increasing. In addition to traditional engine lessors, there has been growing interest from service providers, such as original equipment manufacturers [OEMs] and maintenance, repair and overhaul providers [MROs], who all want to be involved in leasing to complement their other activities in the engine aftermarket. And vice-versa: some lessors are also moving into asset management and trading to get the most out of their assets. This development is leading to a more integrated product landscape; in other words, more customised solutions for engine lessors and lessees.

Such solutions go far beyond a simple transaction between two parties: they include services over and above financial support, like asset management and MRO. And they can span an entire engine lifecycle: engine phase-in, MRO services, operator transitions and end-of-life exit strategies.

That sounds great in theory. What does it look like in practice?

For us at MTU, it is a lease-enhancement programme across the lifecycle. Our programme focuses on both the lessor and lessees, mitigating risk for both sides when it comes to engine maintenance and asset value.

Is this something the market really wants, or are such lifetime products more what OEMs and MROs want to sell?

From an MRO perspective, of course it is about ensuring competitiveness in the long run. Anything else would be bad business for us. But we've been listening to lessors and lessees very closely. There is certainly market demand for individually tailored solutions that make sure assets are taken care of and maximised as effectively as possible and costs saved.

For instance, we have noticed an increase in aircraft and engine lessors looking to take a more active role and interest in managing their most valuable asset – engines.

Martin Friis-Petersen, managing director MTU Maintenance Lease Services

They want to be directly involved in engine maintenance decisions, particularly during the transition between lessees, in managing and optimising maintenance reserves and choosing the timing of engine shop visit.

They want the comprehensive package, so to say?

Yes.

Has this made the products more complex and confusing?

It depends on your perspective. On the one hand, our lease-enhancement programme has multiple aspects, and it addresses multiple concerns by optimising the cost of ownership for lessors, yet reducing the cost of operation for lessees throughout the engine(s) life. So, in that respect, there are more facets to be considered and explored. But, ultimately, this programme makes things a lot simpler for the lessor and lessees. They are getting the products they want and need. Under the MTU structure, they remain in full control, which is probably the most important factor of our offering.

To what extent are these solutions the same thing just from different companies?

When you get down to the nitty gritty, such solutions are only similar in name, if at all. Yes, they are targeting the lifecycle, but that is it. Full-service, all-inclusive support contracts as offered by OEMs at the point of sale bind lessors to them for a period of time. Such packages have been around for a long time, and have traditionally been directed towards airlines to reduce the risk when operating engines that are new to them. Now, the OEMs are adapting and marketing such packages to lessors, too. Perhaps, most crucially from a lessor perspective, these deals change the nature of maintenance fees: fees are no longer a way of building up reserves for later maintenance; they are a kind of insurance fee for ongoing usage [term-based rates] held by the OEM. They will give credits for future maintenance work, but be sat on the money. The lessor cannot see it.

But this newer insurance fee structure not only binds the lessor to the OEM in the case of the lessee being in default, it usually obligates the lessees to send the engines to an OEM shop to perform the work. The lessee will enter into a separate agreement with the OEM. This agreement can come in the form of a whole range of contract types, according to the operator's preferences. What they cannot choose in these arrangements, however, is their provider and, most often, the type of maintenance and workscope the engine receives.

Why should lessors care about maintenance reserves if maintenance is covered?

Because maintenance reserves are about risk mitigation and, if badly managed, maintenance reserves (or lack of them) can become costly mistakes.

Can you elaborate?

The lessors should always ensure that there are enough maintenance reserves to cover their engine(s) at all times. According to estimations from various lessors, over 70% of the global leased fleet of engines are currently under-reserved or lessors don't have the correct amount of reserves necessary for later maintenance events. Ensuring the maintenance reserves are well managed takes market understanding and savvy.

What does an independent provider such as MTU do differently in regard to maintenance reserves?

Maintenance reserves remain with the lessor during the term of coverage and are only drawn on at the time of a scheduled engine shop visit. The lessor remains in control at all times. Beyond this, we ensure that each and every engine covered under this programme is reserved appropriately and that the correct fees are collected in relation to specific operating conditions of the respective lessees. In turn, this provides complete peace of mind to the lessor and lessee, because their engine is correctly reserved and there will be no shortfall when the next scheduled maintenance event occurs.

What other differences do you see between your services and that of an OEM?

Complete flexibility. We aren't just placing our customers into standardised programmes, but into tailored programmes specific to their needs and requirements. Engines can be phased into the programme at any point in the lifecycle. Additionally, we have a long history of providing MRO services, so the engines are maintained to the highest standards at all times.

But perhaps most unusually, we provide complete end-of-life asset maximisation. This approach is based on technical MRO experience and market understanding. The correct exit strategy doesn't have to be a direct sale. It could be prolonged lease out if there is market demand, sale as a green-time engine or teardown and parts remarketing.

End-of-life is an interesting point. There have been concerns that OEM support agreements are endangering the secondary market. How do you view this?

This is basically about competition. In a market with increasing OEM involvement, alternatives are bound to diminish. Which usually causes prices to rise, especially when it comes to maintenance. Term-based maintenance fees also raise the question of what happens towards the end of the lifecycle, when maintenance becomes more costly due to the need for replacement parts, such as life-limited parts.

As we say in this business, competition is always healthy. Where competition is permitted to prevail on respective engine types, the residual values of engines and piece parts remain strong, because there is interest in trading used engines. On engine types where this is not the case, the opposite is occurring. A controlled market kills used engine trading. So it is imperative that lessors promote and support the competitive environment on both current and new-generation engine types going forward.

We've talked a lot about the lessors. What about the lessees?

Indeed, they are as equally affected by such agreements. Through our programme, we provide the lessee with predictable, direct engine operating costs, which leads to a positive impact on airline financial performance over the long term. We also provide seamless support during the in-phasing and out-phasing of engines within their fleets, and we don't perform unnecessary engine maintenance in cases where it is not necessary.

Under such a programme, maintenance reserves for pre-consumed life are carried forward, providing complete peace of mind to the lessor that he is covered when the next scheduled engine removal occurs, with having any financial burden to plan for. All these factors lead to significant reductions in direct engine operating costs and provide complete predictability and mitigation of operational risks.

Not to be a stick-in-the-mud, but your lease-enhancement programme also binds the lessee to you in terms of maintenance?

True, but we like to think that they are better off with us. Firstly, if we are managing the whole process, then costs can be reduced – operational cost management being a key issue for lessees. Also, and depending on the type of maintenance agreed with the lessor, we offer MRO alternatives that are extremely cost-effective solutions.

The maintenance work itself is also an important topic. What developments have you seen here?

The perception that OEM is better is a key topic in the market at the moment, and it impacts asset value and remarketing efforts. Basically, it has increased the demand for maintenance with OEM parts and approved repairs, although there are alternatives out there that can even be superior in quality, and it suggests that assets maintained to OEM standards will have superior value when remarketed.

But in your opinion, this perception is not true or founded?

To be blunt, yes, it isn't true. My opinion is based on a number of aspects. Firstly, asset value is dependent on a secondary market. We talked about that earlier. With very limited to no market at all, it doesn't matter if you use OEM or non-OEM parts and repairs. And, of course, even with a secondary market, you need a buyer that will pay more for your OEM-maintained engine to recoup on the additional costs you had. Secondly, pure OEM maintenance is only really increasing the cost of ownership. We aren't seeing an improvement in parts reliability as such. In fact, sometimes alternatives can be of higher quality and enable longer on-wing times.

Even for lessees using engines from a lessor that insists their engine is maintained to OEM standards, alternative maintenance could still be an option for them – depending on the lease period. For instance, cost of ownership can still be cheaper for engines that have been maintained using alternatives such as used parts or FAA/EASA repairs for two visits or more, and OEM parts exchanged in later for the return at the end of the lease.

What does the future hold for the leasing market and respective maintenance?

The days of traditional quiet enjoyment are dissipating. Lessors are seeking more control and oversight of their engine assets, as well as of the related MRO costs. I hope this leads to more and healthy competition in the aftermarket, and ultimately, better values for all. ■

CV

Name: Martin Friis-Petersen

Job title: Managing director, MTU Maintenance Lease Services

Age: 42

Nationality: Danish

Location: Based in Amsterdam, the Netherlands,

Education: MSc in economics and business administration, CEMS Masters in international management

MTU Maintenance Lease Services

In 2013, MTU Aero Engines founded two joint ventures with Sumitomo Corporation, one of the largest trading companies in Japan, to ensure they were better able to meet airlines' growing demand for financing solutions: MTU Maintenance Lease Services, with an MTU stake of 80%, and Sumisho Aero Engine Lease, with an MTU stake of 10%. Both companies have their headquarters in Amsterdam.

MTU Maintenance Lease Services offers short-term leasing, standby arrangements, asset and material management and lease-enhancement services. Sumisho Aero Engine Lease offers long-term leasing and sale and leaseback financing.

Also, MTU can provide flexible solutions for operators of leased engines. For instance, the company helps with tailored end-of-life services, logistical services and housekeeping – all the way to maintenance, repair and overhaul, engine trend monitoring or line replaceable units management.

Lessors breathe sigh of relief

Pieter Burger, partner, financial services tax, Deloitte, discusses the impact on aircraft leasing of interest limitations under the EU's anti-tax avoidance directive.

In June 2015, the European Commission (EC) presented an ambitious agenda to counteract and prevent corporate tax avoidance and promote a fair and efficient taxation system. Its Action Plan builds on the work completed by the Organistion for Economic Co-operation and Development (OECD) as part of its Base Erosion and Profit Shifting (BEPS) initiative and aims to ensure a coordinated implementation of the global standards developed by the OECD.

In January, just as the symptoms of BEPS fatigue were beginning to surface among businesses and advisers, the EC released the draft Anti-Tax Avoidance Package.

The package consists of legislative and non-legislative initiatives with the stated objectives of promoting stability for businesses and investors, enabling member states to protect their tax bases and preserving EU competitiveness. A key element of this package is the Anti-Tax Avoidance Directive (ATAD).

The ATAD was presented at a meeting of the Economic and Financial Affairs Council (Ecofin) of the EU for discussion on 17 June. After discussion, deliberation and compromise, a final draft was put forward and in a Cinderella moment, the member states had until midnight on 20 June to object to the political agreement. With no objections forthcoming, the agreement was reached on 21 June and formally adopted on 12 July.

ATAD overview

The ATAD sets out a number of legally binding anti-tax avoidance measures to be implemented by all EU member states. The measures set out by the ATAD apply to all taxpayers that are subject to corporate tax in a member state, including permanent establishments in the EU of entities resident for tax purposes in a third country. The anti-avoidance measures relate to five specific fields dealt with in Articles 4-8 – namely, the restriction of interest deductibility, exit taxes, a general anti-abuse rule, controlled foreign company provisions and anti-hybrid mismatch rules.

One of the key measures for consideration by aircraft lessors is the potential impact of the ATAD on third-party and intra-group financing. To this end, the interest limitation rules are a pertinent consideration for the aircraft leasing sector. It is not surprising then that the potential adverse consequences of these rules have been well flagged and followed by the industry since the appearance of the OECD's BEPS Action 4 paper.

However, the final interest limitation rules as agreed by the ATAD in June this year contain many relieving measures and many lessors may find that their impact, if any, may be significantly less than initially anticipated. This article seeks to summarse the key features of the interest deductibility restrictions as agreed for implementation in the EU and to shed some further light on their potential impact for aircraft lessors.

Timeframe

Subject to a few exceptions, the measures proposed in the ATAD must be implemented via the domestic law of the member states by 31 December 2018 and be in effect from 1 January 2019.

However, where member states have national targeted rules that are equally effective to the interest limitation rules set out in the ATAD, they may continue to apply their existing rules until the OECD reaches an agreement on a minimum standard for the restriction of the deductibility of interest or, if later, 1 January 2024.

For example, the Irish Department of Finance in a statement dated 22 June 2016, indicated that it views Ireland as a jurisdiction that already has strong targeted anti-avoidance rules and that the implementation of the interest restriction rules in Ireland should therefore be deferred to 2024. In addition, the agreed ATAD provides for the grandfathering of existing loans that were concluded before 17 June 2016 such that the interest limitation rules will not apply to those loans. Where the loans are subsequently modified, the grandfathering would be limited to the original terms (eg, limited to the original loan amount where such loan is subsequently increased).

Article 4 of the ATAD – interest limitation provisions

It was identified in the BEPS Action Plan (OECD, 2013) that multinational groups can use debt flows to shift profits to low tax jurisdictions. For example, a group might finance members in high tax jurisdictions from members in lower tax jurisdictions. The result of this is a tax deduction for interest expenses in the high tax jurisdiction; thereby reducing the taxable profits subject to a higher rate of tax. Meanwhile, the income element (interest received) may be subject to tax at a lower rate in the low tax jurisdiction such that the net benefit to the group is a tax saving.

The interest limitation rules aim to counter the exploitation of these opportunities by imposing a fixed ratio limitation on tax deductible interest. As the aim of the proposal is to discourage tax base erosion using inflated group financing, there are exceptions proposed within the ATAD that allow a relaxation or exemption of the restriction where an entity is part of a highly leveraged group or where it is a standalone entity.

Interest limitation rules

Broadly, Article 4 provides that a tax deduction for "exceeding borrowing costs" will be limited to 30% of the taxpayer's earnings before interest, tax, depreciation and amortisation (EBITDA).

Two important definitions here are borrowing costs and exceeding borrowing costs. Borrowing costs are widely defined in Article 4 and the definition encompasses interest expenses on all forms of debt and other costs economically equivalent to interest.

Of particular relevance in the context of aircraft leasing is the fact that the definition includes, "the finance cost element of finance lease payments, capitalised interest included in the balance sheet value of a related asset, or the amortisation of capitalised interest… amounts under derivative instruments or hedging arrangements related to an entity's borrowings, certain foreign exchange gains and losses on borrowings and instruments connected with the raising of finance, guarantee fees for financing arrangements, arrangement fees and similar costs related to the borrowing of funds".

The next important definition is that of "exceeding borrowing costs", because this part of the definition limits the application of the restriction to the net interest expense. In other words, the restriction will only apply to the extent that the tax deductible borrowing costs exceed taxable interest revenues and "other economically equivalent taxable revenues".

For example, if a company has an equal amount of interest income and interest expense there would be no restriction, whereas a company with, say, rental income and interest expense may be in a different position.

A relevant question for aircraft lessors is whether lease rental income would be considered as "economically equivalent" to interest. Included in the definition of "borrowing costs" is "the finance cost element of finance lease payments" and it would appear therefore that finance lease interest should be regarded as "economically equivalent" to interest for the purposes of the ATAD. However, no specific mention is made of operating lease income and it would seem that operating lease income would not be regarded as such, but the matter is not yet sufficiently clear.

To illustrate the impact of this, a simple example is helpful: where an aircraft-owning finance lessor has finance lease income (the finance cost element) of €100 ($112) and interest expense of €70, there is no "exceeding borrowing costs" to be disallowed. There simply is not a net interest expense to be disallowed. Conversely, if instead this was an operating lessor and operating lease income was €100, the full interest expense of €70 would appear to be the "net interest expense" of which a portion may then fall to be disallowed in accordance with the formulas set out in the ATAD.

As mentioned above, the tax deduction for the net interest expense will be limited to 30% of EBITDA. Importantly, the EBITDA for this purpose is the tax-adjusted EBITDA. EBITDA is defined in Article 4(2) which states that it "…shall be calculated by adding back to the income subject to corporate tax in the member state of the taxpayer the tax-adjusted amounts for exceeding borrowing costs as well as the tax-adjusted amounts for depreciation and amortisation. Tax-exempt income shall be excluded from the EBITDA of a taxpayer". In other words, it is the earnings for tax purposes before net interest and tax depreciation that are relevant.

Also, member states have the flexibility to allow for the net interest expense and the EBITDA to be calculated at the level of the taxpayer's "group". Group, for this purpose, is not specifically defined but it appears to refer to a group for tax purposes in accordance with the country's local tax laws. For example, where a country has full fiscal consolidation it would refer to that group or where a country has other concepts/definitions of a group for tax purposes (eg, a group for the purposes of surrendering losses by means of group relief), it would appear to refer to that definition of a group.

Exceptions and relieving measures

As mentioned earlier, the ATAD provides for a number of optional relieving measures. These are, broadly:

- exclusion of standalone entities from the rules;
- a deduction for interest up to €3 million (calculated on a group basis);
- the possibility for an entity still to claim interest deductions where certain leverage ratios are in line with that of its consolidated group;
- a possible carry forward (and carry back) for excess interest to be available for deduction in future years; and
- exclusion of "financial undertakings" from the rules.

Standalone entities and the €3m limit

Taxpayers that are standalone entities may be given the right to deduct fully their net interest expense without any limitation. A standalone entity for this purpose means a taxpayer that is not part of a consolidated group for financial accounting purposes and which does not have any permanent establishments (ie, foreign branches) or associated enterprises (broadly, 25% affiliation).

In addition, member states may also allow a taxpayer to deduct exceeding borrowing costs up to a €3 million threshold, which should be considered for the entire group.

Group ratio relief measures

Relief for highly leveraged groups is provided by allowing member states the option of including one of two group-related exceptions to the general interest limitation rule.

The first exception allows a full deduction for the net interest expense where a taxpayer can demonstrate that its equity over total assets ratio is closely in line with (up to 2% lower or higher than) the equivalent ratio of the group (group here referring to a consolidated group for financial accounting purposes).

The second allows for a deduction up to a limit higher than the general 30% EBITDA limit. This higher limit may be determined with reference to the taxpayer's consolidated group for financial accounting purposes as the total exceeding borrowing costs of the group (ie, net interest expense of the group) vis-à-vis third parties over the EBITDA of the group. The taxpayer would then be allowed to claim a deduction for the net interest expense up to this higher ratio of its tax-adjusted EBITDA. In other words, where the consolidated group for accounting purposes is highly leveraged with third-party debt, all the taxpayers in that group can enjoy this higher leverage ratio in determining their own interest restriction. This clearly would be a welcome relief for aircraft lessors where the consolidated accounts are prepared for the aircraft leasing group as a whole.

Carry forward

A significant relieving measure proposed is the possibility for member states to allow for excess interest that cannot be deducted because of the EBITDA restriction in a year to be carried forward indefinitely to subsequent taxable periods, and also to carry such interest back for a maximum of three years.

A further relieving option is also possible whereby unused interest capacity can be carried forward for five years together with excess disallowed interest.

Financial undertakings exclusion

Member states may exclude financial undertakings from the scope of the interest deductibility restrictions rules. Financial undertakings are specifically defined and essentially includes regulated entities such as banks, insurance companies, funds, pension funds and certain other types of financial institutions.

Illustrative example

While recognising that there are a number of options available to member states as to how Article 4 can be implemented into national law, it is still useful to set out a simple example for illustrative purposes. The example set out below applies the basic principles outlined in Article 4 to an aircraft-owning operating lessor, based on certain illustrative assumptions.

An aircraft-owning operating lessor owns a single aircraft and the details are as follows;

Capital cost of aircraft	40 million
Debt financing	32 million
Rental income	350,000 a month
Cost of financing	4% a year

For accounting purposes, assume the capital cost of the aircraft is depreciated over 20 years. The local tax rules allow for tax depreciation of the aircraft over eight years.

An extract from the profit and loss account is as follows;

Rental income	4.2m
Depreciation	(2m)
Interest	(1,280m)
Profit before tax	920,000

Taxable profits:

Rental income	4.2m
Tax depreciation	(5m)
Deductible interest	(1,280m)
Taxable profits (loss)	(2,080m)

Tax-adjusted EBITDA calculated in accordance with Article 4:

Income subject to corporate tax	(2,080m)
Add back tax depreciation	5m
Add back net interest expense	1.280m
Tax-adjusted EBITDA	4.2m

The 30% interest limitation is applied to the EBITDA calculated above 4.2m:

EBITDA	4.2m
30% restricted interest	1.26m

Application of the interest restriction to the tax computation:

Tax adjusted income (loss) before restriction	(2,080m)
Disallowable interest	20,000
Revised taxable profits (loss)	(2,060m)
Interest available for carry forward	20,000

Points to note

If this entity was a standalone entity, there would be no restriction on the interest expense.

If part of a wider consolidated group which is highly leveraged, the application of the group ratio rule may result in all or a higher amount of the interest being allowable.

It is possible that the disallowable interest that cannot be deducted because of the EBITDA restriction may be carried forward indefinitely to subsequent taxable periods.

Assuming the entity is recognising a deferred tax asset in respect of losses carried forward, it may also potentially be able recognise a deferred tax asset on the excess interest expense carried forward, but this should be determined on a case-by-case basis.

Conclusion and takeaway

Multinational groups that enjoy low effective rates of tax as a result of efficient intra-group financing structures will likely be impacted by the changes proposed by Article 4 of the ATAD. However, the extent to which the restrictions will impact on groups will depend on a number of factors, such as how the optional relief measures are enacted by the relevant member state.

For highly leveraged industries such as aircraft leasing, it would appear there are a number of exceptions to the rules which may limit the impact as well as mitigating action that could be taken. For example, given the potential for the application of exceptions by reference to group financing ratios, the creation of distinct consolidated aircraft leasing groups for accounting purposes could be considered.

As there is still some uncertainty as to which of the relieving measures will be implemented by different EU member states, it would be prudent for aircraft lessors to stress test the potential impact of Article 4 of the ATAD to their groups. However, as outlined above, in many cases the impact, if any, should not nearly be as severe as initially anticipated. ■

Unravelling Canada's laws

Blake, Cassels & Graydon look at the laws relating to aviation in Canada.

Canada is a federal state, consisting of a central federal government and 10 provincial and three territorial governments. Under Canada's constitution, international and interprovincial transportation and bankruptcy matters fall within federal jurisdiction, while property and civil rights, including security interests in personal property, fall within provincial jurisdiction.

The laws of Québec are based on the French civil law system, while the laws of all other Canadian jurisdictions are based on British common law.

Cape Town Convention

In 2001, Canada signed the Cape Town Convention on international interests in aircraft, which resulted from a Canadian initiative. Canada passed the necessary implementing legislation in 2005, but did not proclaim an amended version of that legislation or ratify the treaty until December 2012. The Cape Town Convention, with all aircraft sector understanding qualifying declarations, became law in Canada, federally, and in Ontario, Québec, Alberta, Nova Scotia, Saskatchewan, Newfoundland and Labrador, Northwest Territories, British Columbia, Nunavut and Manitoba, on 1 April 2013, in Yukon and Prince Edward Island on 1 October 2014 and, on 1 July 2016, in New Brunswick (the remaining province).

In March 2015, through a private offering of three tranches of enhanced equipment trust certificates (EETCs), Air Canada financed just over $1 billion-worth of Boeing 787-8 and 787-9 aircraft at a blended rate of 3.81%, which is a rate highly competitive with those on US airline-issued EETCs. Air Canada followed this offering with another EETC in December 2015 for just over $500 million of Boeing 787-9 and 777-300ER aircraft at a blended rate of 4.044%.

The success of all three of Air Canada's EETC offerings is attributable to Canada's adoption of the Cape Town Convention and Alternative A, which was deemed by the rating agencies as the functional equivalent of Section 1110.

The rating agencies took great comfort in the fact that the Canadian implementing legislation explicitly states that the Cape Town Convention supersedes all existing laws (with certain narrow exceptions) and even goes further than Section 1110 in protecting creditors by explicitly obliging a Canadian airline and the Canadian government to assist creditors in the deregistration and export of the aircraft and requiring the airline to preserve the aircraft and its value in accordance with the financing agreement during the 60-day stay period.

In addition, the Province of Québec, in which self-help remedies were not generally available under its Civil Code, specifically authorised the federal government to enter a declaration authorising non-judicial remedies for aircraft objects in Québec. Self-help is now available in respect of aircraft objects in all Canadian jurisdictions.

Aircraft title and registration

Canada, as party to the 1944 Chicago Convention, maintains the Canadian Civil Aircraft Register (CCAR) pursuant to the Aeronautics Act (Canada).

Unlike the federal shipping registry, which records title and encumbrances, the CCAR was established only to record operators (ie, those with "legal custody and control") of Canadian aircraft. It is specifically provided that the CCAR is not a title or encumbrances register.

Under an aircraft lease agreement, the air carrier/lessee, rather than the owner/lessor, will therefore be registered as the owner for purposes of the Aeronautics Act (several years ago, because of confidentiality concerns, Transport Canada Aviation ceased its practice of permitting certificates of registration to be endorsed to indicate that aircraft were under lease from specified lessors).

Accordingly, Canada did not ratify the 1948 Geneva Convention on the International Recognition of Rights in Aircraft and does not maintain a central aircraft register for the purposes of that convention.

While the question of aircraft title remains subject to the jurisdiction of the provinces, Canada now benefits from the ability to register aircraft bills of sale in the International Registry.

It is, however, still advisable to confirm a clear chain of title to the aircraft. Checking title is relatively simple when the aircraft is being acquired from the manufacturer or from a Geneva or Cape Town Convention jurisdiction, such as the US, where an aircraft title and encumbrances report and opinion can be obtained. Otherwise, to the extent practicable, title can only be confirmed by reviewing bills of sale or other conveyance documents from the manufacturer or from the exporter/seller of the aircraft from such jurisdiction.

The identity of the registered owner should also be confirmed with a search of the CCAR, which requires evidence from the applicant for such registration that it has "legal custody and control" of the aircraft. Such evidence is normally a bill of sale or lease agreement from the last registered owner (whether registered in Canada or elsewhere).

Security interests

All Canadian provinces and territories, with the exception of Québec, have enacted a Personal Property Security Act (PPSA), establishing the rules for the creation, perfection and enforcement of a security interest in personal property. Each PPSA contains a notice filing system, which is similar to Article 9 of the United States Uniform Commercial Code system. The various provincial PPSAs are similar and, in most cases, identical. In most respects, after the adoption of the new Civil Code of Québec (CCQ) in 1994 and the subsequent establishment of a registry for certain leases and instalment sale contracts, Québec's rules in respect of hypothecs and other title-retention devices on movable (personal) property are similar in effect to the PPSA rules. Before the implementation of the Cape Town Convention, the PPSA/CCQ regime governed the creation, perfection and enforcement of a security interest in "aircraft objects" (as defined in the Cape Town Convention). Canada did not opt for transitional provisions in respect of PPSA/CCQ registrations.

While the Cape Town Convention governs transactions from and after the relevant provincial ratification dates set forth above, the PPSA system will continue to apply to pre-Cape Town Convention and non-Cape Town Convention transactions. In addition, even for Cape Town Convention transactions, because the PPSA system allows wider collateral descriptions than does the Cape Town Convention, PPSA registrations should continue to be done in addition to International Registry filings.

Leases

Each PPSA jurisdiction contains its own, although generally similar, rules as to the requirements to register leases as security interests.

While there are a number of very technical court decisions that differentiate between a "true" lease, for which, for leases of less than one year, registration sometimes is optional, and one which "secures payment or performance of an obligation", which must be registered, it is always advisable to register notice of any lease because it is an inexpensive process and the consequences of not doing so can leave the lessor in the undesirable position of being an unsecured creditor rather than owner.

Moreover, in all provinces, leases for a term of more than one year must now be registered, even if not intended as security documents. An additional benefit of registration is that, as a registered secured party, a lessor is entitled to notice when any other secured party of that debtor elects to take steps to enforce against its collateral.

Other priorities

Pursuant to Article 39 of the Cape Town Convention, provincial law will continue to govern the rules for the priority of repairers' liens, assignments of collateral, attachments to the collateral (for example, as between different owners of engines attached to the aircraft), security interests against ancillary collateral (such as spare parts, security deposits or maintenance reserves) and other potential priorities. Provincial law will also continue to govern conveyance of title.

Sale and leasebacks and securitisations

It is no longer necessary to cancel the Certificate of Registration and re-register a Canadian aircraft because of a sale and leaseback, or assignment or novation, whether to facilitate a securitisation or otherwise. This is because, while the nature of the legal custody and control of the aircraft has changed, the party with such custody and control has not.

Accordingly, it is now necessary only to notify Transport Canada Aviation of the change within seven days after closing, by providing a copy of the new document under which the registered owner retains such custody and control.

Legal opinions

In the past, Canadian legal opinions in aircraft finance transactions have tended to be complex and heavily qualified because of the various jurisdictions and lack of a central title and encumbrances registry. The recipient is thereby generally left to satisfy itself as to the adequacy and completeness of the steps taken.

Experienced aviation counsel should be able, however, based on a review of the aircraft's status, to simplify the process by advising as to what searches and registrations, as a practical matter, are required or advisable. Counsel should then be in a position to report that all reasonable steps have been taken to confirm that the appropriate party has good title and priority over any encumbrance that could reasonably be expected to affect the aircraft.

Insolvency and repossession

While provincial law governs the ability to repossess and enforce on security, as mentioned above, federal law governs bankruptcy and insolvency.

The federal Bankruptcy and Insolvency Act (BIA) and/or Companies' Creditors Arrangement Act (CCAA) generally govern the rights of lessors and aircraft secured financiers to realise upon their collateral in an insolvency.

With the implementation of the Cape Town Convention in Canada, Alternative A for aircraft objects takes priority over the BIA and CCAA.

The principal differences between the CCAA and the US Bankruptcy Code are as follows: (i) the CCAA (which is most often used by Canadian airlines to restructure) is driven by judicial discretion, while the US Code is rule based; (ii) the initial CCAA court order (generally proposed by the debtor in conjunction with major stakeholders) sets the rules for the stay and restructuring; (iii) under the CCAA, operating lessors are entitled to demand post-filing rent or prompt repossession; (iv) the CCAA does not contain a right to disclaim labour contracts; (v) a trustee is appointed as monitor by the court to supervise the debtor's activities and report to creditors and the court; and (vi) there is no automatic priority for post-filing credit under the CCAA.

The Transamerica decision in the Air Canada CCAA restructuring confirmed that, while Air Canada could request a "payment moratorium" on a consensual basis from lessors pending reaching restructuring agreements, absent such agreements, full contractual post-filing rent must be paid until the aircraft is available for redelivery.

Air Canada had argued that Transamerica should only have been entitled to the fair market value rent that had been offered to that lessor, until such time as the aircraft was taken out of service. Negotiations continued for some months after that time, until they were broken off and the aircraft redelivered. The court implied that such a decision might not have been made in the case of a financing lease.

Tax aspects of leasing

In Canada, most tax-based leasing disappeared with the 1989 amendments to the Income Tax Act (Canada), which limited the after-tax financing advantages available to lessors.

The depreciation that can be claimed by lessors is now generally restricted to the amount in any given year that would have been a repayment of principal had the lease been a loan, with the lease payments being treated as blended payments of principal and interest.

The Supreme Court of Canada has also ruled that a lease will generally always be treated as a lease for tax purposes, thereby largely eliminating the tax distinction between operating and finance leases in Canada.

Lessees and lessors may, however, elect in certain cases that the lessee shall also receive depreciation for Canadian tax purposes.

Aircraft leasing also continues to thrive in Canada for off-balance-sheet financing or title-retention security purposes.

There is no longer withholding tax payable on lease payments for the use or right to use aircraft, payments to non-Canadian aircraft lessors, or to non-Canadian lenders, unless related to the payor and not resident or deemed to be resident in the US or other jurisdictions covered by similar tax treaties.

Canada's value-added goods and services tax (GST) – harmonised sales tax (HST) in certain provinces – continues to apply to aircraft leasing and must be paid by the lessee (although technically levied on the lessor) except for rent paid to non-Canadian lessors.

GST/HST is, however, subject to input tax credit and refund by the federal government for GST/HST paid in respect of commercial activities.

Other recent developments

In the Canada 3000, Zoom and Skyservice Airlines bankruptcies, NAV Canada and certain airport authorities sought to assert a lien similar to Eurocontrol rights for unpaid charges in priority to the interests of aircraft lessors.

The Supreme Court of Canada has now essentially held that, while such lien does not exist in law, if an air authority is able to seize an aircraft before its lease is terminated and/or the aircraft is repossessed, it will be able to detain the aircraft until paid. This test was confirmed in the appeals in the Skyservice Airlines insolvency proceedings.

This article was co-written by Donald G Gray, head, aircraft finance, and Jason MacIntyre, partner, aviation group, Blake, Cassels & Graydon LLP, 199 Bay Street, Toronto, Ontario, Canada, M5L 1A9, 416-863-2750; donald.gray@blakes.com and 416-863-2750, jason.macintyre@blakes.com

Aircraft ownership – key jurisdictions and corporate status

Maples and Calder looks at the growing trend of aircraft ownership by special purpose vehicles.

In recent years there has been a trend of aircraft ownership moving away from the airlines which ultimately operate the assets and towards corporate entities established solely for the purpose of holding, leasing and financing aircraft – so-called special purchase vehicles (SPVs) – which are often established in tax-efficient jurisdictions.

Below we analyse the key jurisdictions where aircraft-owning SPVs are established, the types of entities which are routinely used to hold aircraft and which jurisdictions and entity types should be considered for use in aircraft transactions.

British Virgin Islands

The British Virgin Islands (BVI) is a major international jurisdiction for asset-holding vehicles because of its investor-friendly and tax-neutral regime as well as its stable economic and political environment.

BVI business companies, incorporated as SPVs under the BVI Business Companies Act (as amended) (BVI Act), are often used for financing and leasing corporate and private jets and helicopters and, increasingly, commercial airliners.

A BVI business company is a limited liability company which has the ability to apply for a tax-exemption certificate.

The BVI Act provides a modern and flexible framework for the establishment of a company and is under constant review, with changes designed to ensure the operation of BVI business companies is in tune with current market demands. The BVI Act provides for a flexible corporate governance regime with, among other things, no requirement for a company to hold an annual general meeting or for shareholders, directors or officers to be resident or to hold board meetings in the BVI.

BVI companies also benefit from access to the BVI's tax-neutral environment, while establishment and ongoing administration costs are extremely competitive and, as there are no requirements to prepare audited assets accounts, costs are kept even lower.

Cayman Islands

The Cayman Islands' standing as a leading aircraft finance jurisdiction is long established and has been recently solidified because lenders and lessors can now access the protections afforded under the Convention on International Interests in Mobile Equipment and the Protocol thereto on matters specific to aircraft equipment, which was concluded at Cape Town, South Africa, on 16 November 2001 (Cape Town Convention). This was extended to the Cayman Islands on 1 November 2015, with the Cayman Islands opting for the Alternative A insolvency regime.

The vast majority of transactions structured through the Cayman Islands utilise an exempted limited liability company (exempted company) incorporated under the Companies Law of the Cayman Islands (companies law). Exempted companies are typically established as bankruptcy-remote companies with the entire issued share capital held off the investors' or operators' balance sheet, by a locally licensed and regulated trust company, which holds the shares on trust for charitable purposes.

An exempted company may apply to the Cayman Islands government for an undertaking to confirm that it is exempt from any direct taxation in the Cayman Islands for a period of 20 years should applicable taxation be introduced in the Cayman Islands.

In addition to exempted companies, in July the Cayman Islands established a new form of corporate entity under the Limited Liability Companies Law, 2016 (LLC Law), which provides for the formation of a Cayman Islands limited liability company (Cayman LLC). The Cayman LLC has many of the attributes associated with its Delaware counterpart, the Delaware LLC (*see Delaware below*), which we expect will make it of interest for aircraft financing.

The LLC Law provides flexible governance arrangements allowing members to agree among themselves the internal workings and management arrangements of the Cayman LLC, subject to certain statutory minimums, and members may also agree that profits and losses will be allocated among the members or among classes or groups of members in accordance with the LLC agreement.

Like exempted companies, a Cayman LLC may apply to the Cayman Islands government for an undertaking that it will be exempted from payment of taxation on profits, capital gains or inheritance should such taxation be introduced in the Cayman Islands, but, in the case of Cayman LLCs, the period of clearance is extended to 50 (rather than 20) years.

Cayman LLCs are particularly attractive as an investment vehicle because members' capital contributions can be made by way of cash, property or other assets or services rendered, or to be contributed, rendered, or performed in the future and, save for exceptional circumstances, a member's liability is limited to the amount it has contractually agreed to contribute to the Cayman LLC.

Ireland

Almost 50% of the worldwide commercial aircraft fleet is leased or managed through Ireland and thousands of aircraft are held by and funded through Irish SPVs.

Aircraft are almost always held by private limited companies in Ireland, of which there are two types: limited companies (LTDs) and designated activity companies (DACs).

DACs are the most appropriate corporate entity to use where the SPV is required to: (i) have a specific purpose (or object); (ii) issue publically listed securities; or (iii) lend outside its corporate group. In practice, LTDs are more often utilised in aviation transactions because they are simpler and have less associated regulation, and with few aircraft-owning vehicles issuing publically listed securities or lending to third parties ordinarily there is no need to establish a DAC.

Both DACs and LTDs can exist as trading companies or S110 entities for taxation purposes. Trading companies tend to be used where an SPV can readily demonstrate a genuine presence in Ireland or the SPV is actively undertaking business and dealing with one or more aircraft – for example, a leasing platform or subsidiary of a lessor or other corporate. Such companies can avail themselves of Ireland's preferential corporate tax rate of 12.5% together with a range of other benefits available to Irish companies, including favourable withholding tax rates resulting from Ireland's range of 72 double tax treaties with countries in key jurisdictions across the globe.

Section 110 entities are so-called because they are established pursuant to section 110 of the Taxes Consolidation Act, 1997 (TCA), which contains Ireland's structured finance and securitisation framework. The TCA, as amended by the Finance Act 2011, includes "plant and machinery" in the definition of "qualifying assets" and, as a result, aircraft are now qualifying assets that can benefit from the favourable tax advantages under S110 of the TCA.

Where an SPV satisfies the criteria for section 110 status (which critically requires that the first transaction undertaken by the SPV has a minimum investment of €10 million – $11.1 million – in qualifying assets) it may be possible to structure the transaction in order to achieve tax neutrality though the calculation of taxable profits on qualifying assets, while the holding and/or managing of qualifying assets is treated in virtually the same manner as business undertaken by a trading company.

Cayman Islands/Ireland

The use of Cayman Islands incorporated, Irish tax resident SPVs (Cayco/Irecos) in aircraft finance and leasing transactions is becoming increasingly popular, because they are considered to offer a good blend of tax, corporate and regulatory advantages.

Traditionally, Cayco/Ireco SPVs are incorporated in the Cayman Islands as exempted companies (although it is also possible to use a Cayman LLC) and remain subject to ongoing statutory and corporate compliance requirements under the Companies Law, which is considered simple and cost effective, while management and control of the Cayco/Ireco is located in Ireland in order to satisfy the Irish tax residency requirements.

With exempted companies and Cayman LLCs not required to have shareholders, directors or officers resident in the Cayman Islands or hold meetings of the board or shareholders in the Cayman Islands these functions are moved to Ireland, assisting the tax residency analysis. Irish tax residency status allows the Cayco/Ireco to maximise tax benefits by accessing Ireland's favourable tax regime (whether as a trading company or S110 entity) and its considerable network of double-tax treaties.

Delaware

The USA is one of the most active aviation markets in the world with commercial aviation activities contributing about 5% of the country's GDP. The Federal Aviation Administration (FAA) estimates average carrier growth in the US at 2.1% a year for the next 20 years, with growth in the number of aircraft operated by US-based carriers forecast to grow by 66 aircraft a year, on average, until 2036.

Delaware offers a number of vehicles that can be used in the structuring of aircraft financings, including statutory trusts, limited liability companies (Delaware LLCs), limited partnerships (LPs) and corporations. The hallmark of Delaware SPVs is their ease of formation, freedom of contract, ability to detail duties and obligations, as well as the choice of taxation regime, limitation of liability and reliance on the Court of Chancery as to matters of Delaware law.

To register an aircraft with the FAA the owner must be a citizen of the US. For this purpose, a US citizen includes a corporation or association organised under the federal laws of the USA, a US state, the District of Columbia or a US territory, enabling parties to utilise FAA registration through the use of a Delaware entity.

While it is possible to use a corporation, partnership, trust or LLC structure to hold aircraft, Delaware LLCs in particular have been growing in popularity, accounting for more than 50% of all entity formations in Delaware. There are a number of factors that have contributed to this but, in essence, Delaware LLCs can be established quickly and without many of the corporate formalities that must be observed in regard to a corporation.

One of the most important attributes of a Delaware LLC is the concept of freedom of contract, in which duties, responsibilities and resulting liabilities can be prescribed within the terms of the LLC agreement. The benefits for directors include limitations on liability for breaches of directors' fiduciary duty and protection for directors who, in good faith, rely on information furnished by others, such as service providers, chosen with reasonable care.

A Delaware LLC is permitted to carry on any lawful business purpose or activity (other than certain insurance or banking activities) as a distinct and separate legal entity from its owners. Thus, a Delaware LLC may acquire and dispose of real or personal property in its own name, make contracts in its own name, participate with others in business opportunities and sue and be sued in its own name. The liability of a member of a Delaware

LLC is somewhat analogous to the limited liability of a stockholder of a Delaware corporation.

The standard Delaware partnership structure results in unlimited liability for partners of a general partnership. However, Delaware partnership law provides for LPs and limited liability partnerships (LLPs) that offer limited liability. An LP requires at least one general partner and provides for limited liability for partners, ensuring partners are not personally liable for the debts of the limited partnership. The LLP is a similar business structure but it has no general partners. All the owners of an LLP have limited personal liability for debts of the LLP.

Luxembourg

In 2008, Luxembourg became the second European country (after Ireland) to adopt the Cape Town Convention, and since that time has expanded in many areas of aircraft finance, developing an attractive tax regime for international operators, as well as a securitisation market that is perfectly suited to aircraft financing.

The most widely used corporate vehicle in Luxembourg for investing in aircraft is the société à responsabilité limitée, a Luxembourg limited liability company (commonly referred to as a SARL). The SARL is a specific type of commercial company which has the characteristics of a capital company, where liability of the shareholders is limited to the amount of their contributions, as well as the characteristics of a partnership in that shares are non-transferable.

Where a SARL is structured as a holding company (SOPARFI), there are advantages to shareholders and investors alike, because ongoing taxes are low and it is possible to receive dividends from shareholdings in other jurisdictions without having to pay corporate income tax (CIT) in Luxembourg, and then to sell on such shareholdings free of tax.

Luxembourg also benefits from a substantial network of double-tax treaties and a dividend withholding tax exemption that exempts dividends from withholding tax where paid to corporate investors resident in any country with which Luxembourg has concluded a double-tax treaty.

Over the past five years, Luxembourg securitisation vehicles (LSV) have been increasingly used as direct investment vehicles on aviation-related transactions, for the legal, regulatory and tax advantages they offer. The LSV is usually a Luxembourg incorporated public limited company (SA) or a private SARL which participates in the transaction as the shareholder of the aircraft owner or as a subordinated lender (mezzanine or junior) to the aircraft owner. A securitisation vehicle can create one or more compartments, which correspond to a distinct part of the LSV's assets and liabilities. While these compartments do not have a separate legal personality, their assets are ring-fenced under Luxembourg law. Taxation is another key area of competitive advantage for the LSV. With proper structuring, an LSV can effectively be tax neutral, and although subject to CIT, all payments made to investors and creditors can qualify as interest on debt, and are therefore considered fully deductible for tax purposes, while distributions to investors in LSVs are exempt for withholding tax in Luxembourg.

Netherlands

The Netherlands is second only to Ireland for aircraft finance and leasing activities. Like Ireland, the Netherlands has an extensive list of double-tax treaties resulting in zero or significantly reduced levels of withholding tax on interest, lease rentals and other payments.

Traditionally, the Netherlands has been used for a large number of securitisation transactions in the aviation space, employing Dutch bankruptcy-remote SPVs.

Dutch bankruptcy-remote SPVs, which are ordinarily established as Dutch BVs (a Dutch limited liability company with no minimum capital requirements), typically use a Dutch Foundation, known as a Stichting, which holds the shares in the SPV. A key attribute of a Stichting is that it does not have a legal owner. Stichtings are separate legal entities, incorporated through a notarised deed that contains the articles of foundation. As such, they do not have members, shareholders or authorised share capital. Rather, they are governed by a board of directors which is responsible for the foundation's administration.

Furthermore, no government authority is involved in the creation or authorisation of a Stichting because it acquires full legal capacity solely through its creation. There are no minimum director requirements either. With no shareholding requirement, a Stichting can be easily employed as a bankruptcy-remote financing vehicle or as the trustee for investment funds in order to isolate assets from third-party claims.

United Kingdom

The UK has been a key jurisdiction for asset finance vehicles for several decades, primarily for UK-originated assets, as well as an established jurisdiction for leasing in to Australia because of the preferential tax arrangements between the UK and Australia. Incorporation of UK SPVs usually takes the form of a public or private company limited by shares, or a limited liability partnership.

One of the many benefits of incorporating in the UK is the established legal and regulatory regime which the UK offers. This ensures efficient incorporation and registration with the regulator, which can often be achieved on a same-day basis.

The UK also benefits from the Securitisation Companies Regulations (2006), which provide for a corporation tax regime tailored to securitisation companies and ensure that securitisation SPVs are not taxed on the basis of their deemed accounting profits (which can be volatile under IFRS), but on a nominal amount as defined in the transaction documentation. This allows SPVs to pay a predetermined, nominal amount of corporation tax.

For advice on structuring aviation finance or leasing matters or setting up, managing or utilising SPVs in aviation matters, please email **aviationfinance@maplesandcalder.com** or contact any of the authors listed in the various jurisdictions below.

British Virgin Islands
Richard May
+1 284 852 3027
richard.may@maplesandcalder.com


AVIATION SOLUTIONS WITH MAPLES
With a combined perspective spanning a global network of offices, the Maples group supports aviation clients in realising optimum legal, structuring and fiduciary advantages in a one-stop-shop service solution, in their own jurisdiction and around the world.
40+ years in aviation
1000+ commercial aircraft in 2015
14 global locations
Legal
Fiduciary
Fund Services
Corporate Services
Cape Town Registrations
AVIATION CONTACTS
Mark Western
mark.western@maplesandcalder.com
Donna Ager
donna.ager@maplesandcalder.com
Stephen O'Donnell
stephen.odonnell@maplesfs.com
maplesandcalder.com
maplesfs.com

Cayman Islands

Dale Crowley
+1 345 814 5535
dale.crowley@maplesandcalder.com

Wanda Ebanks
+1 345 814 5449
wanda.ebanks@maplesandcalder.com

Delaware

James Lawler
+1 302 340 9985
james.lawler@maplesfs.com

Ireland

Donna Ager
+353 1 619 2084
donna.ager@maplesandcalder.com

Stephen O'Donnell
+353 1 697 3244
stephen.odonnell@maplesfs.com

Luxembourg

Tom Davies
+352 26 68 6233
tom.davies@maplesfs.com

The Netherlands

Jan Hendrik Siemssen
+31 20 808 1081
janhendrik.siemssen@maplesfs.com

United Kingdom

Charles Leahy
+44 20 7466 1637
charles.leahy@maplesfs.com

About the authors

Richard May is managing partner of Maples and Calder's British Virgin Islands office, and head of the BVI corporate and finance groups. He advises on a variety of corporate transactions, including mergers and acquisitions, joint ventures, stock exchange listings and corporate reorganisations. He also advises investment managers and private equity houses on the structuring, formation and financing of investment funds and private equity funds. He is a member of a focus group advising the Financial Services Commission on regulatory legislation in the British Virgin Islands.

Dale Crowley is a partner in the finance group at Maples and Calder in the Cayman Islands, where he is co-head of the asset finance group. He specialises in a wide variety of on- and off-balance-sheet commercial and private aircraft finance and leasing matters, principally advising commercial banks/financial institutions and export credit agencies, airlines, aircraft leasing companies and lenders. He also advises private yacht owners, commercial shipping companies and commercial banks/financial institutions in transactions for the acquisition, financing, mortgaging, leasing and charting of all types of commercial vessels and private yachts owned by Cayman Islands individuals or entities, wherever flagged. He routinely advises with respect to the registration of all types of vessels with MACI.

Wanda Ebanks is a partner in the Cayman Islands office of Maples and Calder, where she specialises in repackagings and structured finance transactions. Her area of practice also includes general corporate and commercial matters. She has experience in ship and aircraft finance and registration, licensing and equity formation, as well as local immigration, employment, probate and administration matters. She also has experience working with export credit agencies in Europe and Latin America, and with airlines globally in the setup and operation of Cayman Islands special purpose vehicles to participate in aircraft lease financing transactions.

James Lawler is a senior vice-president at Maples Fiduciary in Delaware. He has nearly 30 years' experience of trusts and corporate services, having worked with a number of well-known trust companies and financial institutions. He has significant hands-on experience in all aspects of corporate trust, agency and special purpose vehicle administration, including deal negotiation, jurisdictional knowledge and overall entity structure.

Donna Ager is a partner in Maples and Calder's Dublin office, where she is head of the aviation practice and advises on tax-efficient leasing and financing structures. Having worked for more than 13 years in aviation finance, she has extensive industry and structuring knowledge in the aviation sector. Regarded by clients as practical and commercial, her aviation expertise extends across general aircraft leasing and financing, to include structured products (securitisations, enhanced equipment trust certificates and general asset-backed securities), export credit agency and bank finance, aviation platform financings, manufacturer funding and support mechanisms.

Stephen O'Donnell is the regional head of fiduciary, Europe, in Maples Fund Services' Dublin office. He has extensive structured finance experience both in capital markets and structured asset finance. His capital markets expertise includes cash and synthetic collateralised debt obligations, loan securitisations, repackagings, medium term note and commercial paper programmes, as well as other conduit structures. His experience in asset finance includes asset securitisation, structured products and aviation, and extends to various multijurisdictional bespoke financial solutions.

Tom Davies is the regional head of fiduciary, Europe, in the Luxembourg office of MaplesFS. He has extensive experience in many areas of banking and securities services, having headed operational and product divisions covering global custody, funds services, treasury, securities lending and corporate trust.

Jan Hendrik Siemssen is a senior vice-president at Maples Fiduciary and heads the Netherlands office. He has worked in the financial services industry for more than 25 years and has a broad range of experience covering corporate banking, structured finance and fiduciary services. He primarily specialises in private equity real estate strategies and in structured finance products.

Charles Leahy is a vice-president in the London office of Maples Fiduciary. He has a deep understanding of structured finance transactions, with a particular focus on residential mortgage warehouses and securitisations. He has more than 15 years' experience in financial markets, having worked in capital markets and origination, trust and agency, as well as in corporate services. Having experienced the inner workings of various parties to a transaction, he has the understanding to take a best-in-class approach to any issues that may arise through the life of a transaction.

Directory

2016/2017

www.airfinancejournal.com

AIRFINANCE JOURNAL

A & A Delicostopoulou

Address: 6 Sarantaporou str, GR 111 444 Athens, Greece

Activities: Law firm specializing in all aspects of structuring, negotiating and documenting aircraft leasing and related transactions

Email: aadlaw@otenet.gr

Tel: +30 210 2281001/011

Fax: +30 210 2116076

Contact: Angeliki Delicostopoulou

A&L Goodbody

Address: IFSC, Dublin 1, Ireland

Activities: Financing, Capital Markets, Repossessions, Leasing, Insolvency, Operational Issues, Regulatory Matters, Dispute Resolution

Contacts:

Catherine Duffy, Head of Aircraft Finance
Tel: +353 (0)1 649 2244
Web: www.algoodbody.com/people/Catherine_Duffy
Email: cduffy@algoodbody.com

Seamus O'Croinin, Partner, Aircraft Finance
Tel: +353 (0)1 649 2255
Web: www.algoodbody.com/people/Seamus_OCroinin
Email: socroinin@algoodbody.com

Marie O'Brien, Partner, Aircraft Finance
Tel: +353 (0)1 649 2705
Web: www.algoodbody.com/people/Marie_OBrien
Email: mobrien@algoodbody.com

Maireadh Dale, Partner, Aircraft Finance
Tel: +353 (0)1 649 2629
Web: www.algoodbody.com/people/Maireadh_Dale
Email: mdale@algoodbody.com

Catherin Duffy
Tel: +353 1 649 2244
Web: www. algoodbody.com
Email: cduffy@algoodbody.com

Seamus O'Cróinín
Tel: +353 1 649 2255
Web: www.algoodbody.com
Email: socroinin@algoodbody.com

Abdullah Chan & Co

Address: 31st Floor, UBN Tower, (Letterbox 107), 10 Jalan P. Ramlee, 50250 Kuala Lumpur, Malaysia

Tel: +603 2035 6883

Fax: +603 2035 6882

Web: www.abdullahchan.my

Email: shelina@abdullahchan.my

Activities: Asset Finance, Commercial and General Aviation, Aircraft Leasing, Aviation regulatory matters, Aerospace Advisory

Contact: Datin Shelina Razaly Wahi

ABGF

Address: Avenida Rio Branco nº01 Floor 9

(Sector B)

Tel: +55 21 25105037

Web: www.abgf.gov.br/en/

Email: wilson.lapa@abgf.gov.br

Activities: Airlines Finance & Credit Risk

Contact: Wilson Lapa

A-C-S

Address: Russia, Moscow, 119435 Malaya Pirogovskaya str. 18 bld.1

Tel: 74952230304, Fax: 74952230304

Web: www.a-c-s.aero

Email: info@a-c-s.aero

Activities: Commercial Aircraft Leasing

Contact: Roman Pakhomov

Acumen Aviation

Address: Suite 1236,77 Sir John Rogerson's Quay,Dublin 2 Ireland

Tel: 35316499051

Web: www.acumenaviation.ie

Email: alok.anand@acumenaviation.in

Activities: Asset Management

Contact: Alok Anand

Acumen Aviation Europe Limited

Address: Suite 1236, 77, Sir John Rogerson's Quay, Dublin 2, Ireland.

Tel: +353 1 6499051

Web: www.acumenaviation.in

Email: info@acumenaviation.in

Activities: Lease Management and Asset Management

Contact: Eamonn Cronin

Addleshaw Goddard

Address: Milton Gate, 60 Chiswell Street, London EC1Y 4AG, UK

Tel: +44 (0)20 7606 8855

Fax: +44 (0)20 7606 4390

Web: www.addleshawgoddard.com

Activities: Aviation - transactional (including financing) and regulatory

Contacts:

Rory MacCarthy,
Email: rory.maccarthy@addleshawgoddard.com

Rebecca Garner
Email: rebecca.garner@addleshawgoddard.com

AerData

Address: Walaardt Sacrestraat 401-403, 1117 BM Schiphol, The Netherlands

Tel: +31 20 655 9000

Fax: +31 20 655 9001

Web: www.aerdata.com

Activities: AerData, a Boeing Company, provides integrated software solutions for lease management, engine fleet planning, records scanning as well as technical and back office services for aircraft and engine operators, lessors and MROs.

Contacts:

Matthew Bull, CEO,
Email: matthew.b.bull@aerdata.com,

Alan Geoghegan, Director, Marketing and Sales,
Email: alan.geoghegan@aerdata.com

Sharon Heaton
Tel: +44 (0) 1293 226 845
Email: sharon.heaton@aerdata.com

AerFin

Address: 17 tarragon way

Tel: 7766384581

Web: www.aerfin.com

Email: auvinash.narayen@aerfin.com

Activities: Leasing

Contact: Auvinash Narayen

Aero Technique Espace

Address: Green Park – Bâtiment 3, 57 avenue Jean Monnet, 31770 Colomiers, France

Tel: Tel: +33 562 485 490

Web: www.ate-industries.com

Email: clalane@ate-industries.com

Activities: Aircraft Painting

Contact: Christian Lalane

Aerobay

Address: 88 avenue des Ternes 75017 Paris, France

Tel: +33 1 71 19 45 81

Web: www.aero-bay.com

Email: lperrin@aero-bay.com

Activities: Spare Parts Marketplace

AeroCentury Corp.

Address: 1440 Chapin Avenue, Suite 310, Burlingame, California USA 94010

Tel: +1-650-340-1888

Fax: +1-650-696-3929

Web: www.aerocentury.com

Email: leasing@aerocentury.com

Activities: We are an aircraft leasing and finance company. Primarily operating and finance leases of 5-7 years in duration.

Aerolineas

Address: Av. Rafael Obligado S/N Corporate Building T4, Argentina

Tel: +5411-3723-9009

Contacts:

Pablo Sebastian Miedziak, Chief Financial Officer
Email: pablo.miedziak@aerolineas.com.ar

Marina San Cristóbal
Email: msancristobal@aerolineas.com.ar

Aeroflot - Russian Airlines

Address: 10 Arbat St., Moscow, Russia, 119002

Tel: Customer service:+7(495)2235555, 8-800-4445555; Office:+7(495)7538163; Press-centre:+7(495)752-90-71

Fax: +7(495)7847142

Web: www.aeroflot.ru/ru-en

Email: presscentr@aeroflot.ru

Activities: Airline

Aeroportance

Address: Aeroportance - London

Tel: 447748142025

Email: arnaud.fiscel@aeroportance.com

Activities: Aviation finance & leasing

Contact: Arnaud FISCEL

Aerotask

Address: Office 247, Building 5E-B, Dubai Airport Free Zone

Tel: +971 4 250 0373

Web: www.aerotask.ae

Activities: Asset Management & Financial Solutions

Contacts:

Rob Watts
Email: rob.watts@aerotask.ae

Marian Pistik
Email: marian.pistik@aerotask.ae

Aersale

Address: AerSale Aviation Limited, 3rd floor block e iveagh court, Dublin 2

Tel: 00353 86 300 4189

Web: www.aersale.com

Email: matthew.white@aersale.com

Activities: Leasing

Contact: Matthew White

Aersale Inc. (Singapore Branch)

Address: 883 North Bridge Road

Tel: 60122039710

Web: www.aersale.com

Email: david.settergren@aersale.com

Activities: Aircraft/Engine Leasing and Trading

Contact: David Settergren

Air Canada

Address: 7373, boulevard de la Côte-Vertu Ouest, Saint-Laurent (Québec) H4S 1Z3

Tel: 514 422-5303 | F 514 422-5731

Web: www.aircanada.com

Email: andrea.sepinwall@aircanada.ca

Activities: Counsel, Aircraft Financing and Commercial / Avocate, Contrats Commerciaux et Financement d'avions YUL 1276

Contact: Andrea Sepinwall

Air Exchange

Address: P O Box 40801 Washington, DC 20016 USA

Web: www.airexchange.aero

Email: info@airexchange.aero

Activities: All aspects of brokerage and consultancy for transport aircraft and engines including sales, purchases, leasing (both term and seasonal, wet and dry) and arranging innovative financing, for airlines and the air finance community worldwide.

Contact: Roy Nerenberg

Air Livery

Address: Southern House, Liberator Road, Norwich International Airport, Norfolk, NR6 6EU, UK

Tel: 0044 1603 415612

Fax: 0044 1603 415604

Web: www.airlivery.com

Email: paul@airlivery.com

Activities: Aircraft Refinishing

Contact: Paul Woods

Air Works India (Engineering) Limited

Address: Kalyani House, Plot 40, Sector 18, Gurgaon - 122001, Haryana, India

Tel: +91 9871618855

Fax: +91 124 464 2250

Web: www.airworks.in

Email: sanjeev.munjal@airworks.in

Activities: Aviation Services, MRO, Finishing, Lease Management, Aircraft Management and Charters, Flight Safety etc.

Contact: Sanjeev Munjal

Airbus

Address: Roppongi Hills Mori Tower, 19F 6-10-1 Roppongi, Minato-ku Tokyo 106-6119 Japan

Tel: +81 (0)80 8807 7991

Fax: +81 (0)3 5414 3328

Email: kinichi.yuki@airbus.com

Contact: Kinichi Yuki

Aircraft Leasing & Management Limited

Address: 2 Maidenbower Office Park, Balcombe Road, Crawley, West Sussex, RH10 7NN, UK

Tel: +44-1293-567656

Fax: +44-1293-567821

Web: www.alm-lease.co.uk

Activities: Aircraft Management

Contacts:

Alan Robinson
Email: alanr@alm-lease.co.uk

Roy Webber
Email: royw@alm-lease.co.uk

Aircraft Value Analysis Company

Address: Buckland House, Haydons Close, Chipping Campden, Glos. GL55 6JN. UK

Tel: +44 (0) 203 468 5594

Fax: +44 (0) 203 468 5596

Web: www.aircraftvalues.net

Activities: Appraiser

Contact: Paul Leighton

Airfinanceco

Address: 33 Kenilworth House

Tel: 442033724775

Web: www.airfinanceco.com

Email: ps@airfinancec.com

Activities: Finance

Contact: Paul Sykes

Airfleet Acquisition Group, LLC

Address: 7969 NW 2nd Street Ste. 383

Tel: 305-733-5185

Web: www.airfleetgroup.com

Email: bc@airfleetgroup.com

Activities: Aircraft Leasing, Technical Consulting, Aircraft Brokerage

AirInsight

Address: 2937 Bartol Avenue

Tel: 858-536-9900

Web: www.airinsight.com

Email: info@airinsight.com

Activities: Commercial aviation consulting

Airline Information Research

Address: 3 Old House Circle

Tel: 703-489-9801

Web: www.airlineinfo.com

Email: info@airlineinfo.com

Activities: Department of Transportation Regulatory Filings

ALAFCO

Address: Kuwait

Tel: + (353) 1 234 2620

Web: www.alafco-kw.com

Contacts:

Ahmad Alzabin
Email: zabin@alafco-kw.com

Jane O'Callaghan
Email: jocallaghan@alafco-kw.com

Aldav Engineering Ltd.

Address: 20 Hatzur St. Shoham 6083120, Israel

Tel: +972-3-9792927

Fax: +972-3-9793082

Web: www.aldaveng.com

Email: aldav1@aldaveng.com

Activities: Asset Management, Aircraft Remarketing, Consulting

Contact: Moshe Haimovich, Managing Director

Allegiant

1201 N Town Center Drive, USA

Tel: +1-702-419-6630

Web: www.allegiant.com

Email: Robert.Neal@AllegiantAir.com

Activities: Airlines - North America

Contact: Robert Neal

Allen & Gledhill LLP

Address: One Marina Boulevard, #28-00, Singapore 018989

Tel: +65 6890 7582

Fax: +65 6302 3198

Web: www.allenandgledhill.com

Email: gina.leewan@allenandgledhill.com

Activities: Legal advisory services across the full spectrum of aviation finance laws and regulations

Contact: Gina Lee-Wan

Allen Overy

Address: Allen & Overy LLP, One Bishops Square, London E1 6AD, UK

Tel: 020 3088 0000

Fax: 020 3088 8888

Web: www.allenovery.com

Activities: Aviation

Contacts:

Paul Nelson
Email: paul.nelson@allenovery.com

Vaclav Valvoda
Address: V Celnici 1031/4, Prague 1, Czech Republic
Tel: +420 222 107 114
Fax: +420 222 107 107
Web: www.allenovery.com/czechrepublic
Email: vaclav.valvoda@allenovery.com
Activities: Finance

Petra Mysakova
Tel: +420 222 107 145
Fax: +420 222 107 107
Web: www.allenovery.com/czechrepublic
Activities: Finance

AMBER International

Address: One Boca Place, 2255 Glades Road, Suite 218 Atrium, Boca Raton, Florida 33431 USA

Tel: +1 (561) 994 5522;

Skype: airfinance

Web: www.airfinance.com

Email: bernstein@airfinance.com

Activities: Providing innovative financial and leasing consulting services to institutional aviation investors, airlines and aerospace companies worldwide.

Contact: Arthur J. Bernstein, Managing Director

Amedeo

Address: Third Floor, 29-30 Cornhill, London, EC3V 3NF, UK

Tel: +44 (0) 207 621 6500

Fax: +44 (0) 207 929 3002

Web: www.amedeo.aero

Email: irena.badelska@amedeo.aero

Activities: Aircraft leasing

Contact: Irena Badelska

Amwal Asset Managment

Tel: 97444527777

Fax: 97444111726

Web: www.amwal.qa

Email: falghussein@amwalqa.com

Activities: Asset Management

Contact: Fahmi Alghussein

Apple Bank

Address: 122 East 42nd Street 9th Floor, New York, NY 10168, USA

Tel: +1 212-224-6428 (w)

Fax: +1 212-224-6596 (fax)

Web: www.aviationfinancing.applebank.com/

Contact:

Jonathan Byron, SVP
Email: jbyron@apple-bank.com

Appleby Global

Address: Canon's Court 22 Victoria Street

Contact:

Clive Langley, Corporate Partner
Tel: 14412983202
Fax: 14412983339
Web: www.applebyglobal.com/profile/view/65136/Clive-Langley
Email: clangley@applebyglobal.com

Jamie Rego
Tel: 14412983251
Fax: 14412984139
Web: www.applebyglobal.com/profile/view/65055/Jamie-Rego
Email: jrego@applebyglobal.com

Tiffany Boys
Tel: 14412983596
Fax: 14412983430
Web: www.applebyglobal.com/profile/view/65122/Tiffany-Boys
Email: tboys@applebyglobal.com

Steven Rees Davies, Corporate Partner
Tel: 14412983478
Fax: 14412983478
Web: www.applebyglobal.com/profile/view/65152/Steven-Rees%20Davies
Email: sreesdavies@applebyglobal.com

Tammy Richardson-Augustus, Corporate Partner
Tel: 14412983488
Fax: 14412983488
Web: www.applebyglobal.com/profile/view/64982/Tammy-Richardson-Augustus
Email: trichardson@applebyglobal.com

Address: Jayla Place Wickhams Cay 1

Contact:

Andrew Jowett, Corporate Partner
Tel: 12843935316
Fax: 12844947279
Web: www.applebyglobal.com/profile/view/65131/Andrew-Jowett
Email: ajowett@applebyglobal.com

David Clark, Corporate Partner
Tel: 12843935348
Fax: 12844947279
Web: www.applebyglobal.com/profile/view/64940/David-Clark
Email: dclark@applebyglobal.com

Jeffrey Kirk, Corporate Managing Partner
Tel: 12843935318
Fax: 12844947279
Web: www.applebyglobal.com/profile/view/64952/Jeffrey-Kirk
Email: jkirk@applebyglobal.com

Address: Clifton House 75 Fort Street

Contact:
Alexandra Simpson, Corporate Associate
Tel: 13458142704
Fax: 13459494901
Web: www.applebyglobal.com/profile/view/64999/Alexandra-Simpson
Email: asimpson@applebyglobal.com

Stephen James, Corporate Partner
Tel: 13458142053
Fax: 13459494901
Web: www.applebyglobal.com/profile/view/64980/Stephen-James
Email: ssjames@applebyglobal.com

Caroline Barton, Corporate Partner
Tel: 13458142056
Fax: 13459494901
Web: www.applebyglobal.com/profile/view/65015/Caroline-Barton
Email: cbarton@applebyglobal.com

Address: Regency Court Glategny Esplanade St Peter Port
Contact: Camilla Hobbs, Corporate Counsel
Tel: 44 (0)1481755642
Fax: 4401481728992
Web: www.applebyglobal.com/profile/view/65135/Camilla-Hobbs%20(née%20Neal)
Email: chobbs@applebyglobal.com

Eoin O'Leary, Corporate Associate
Tel: 44 (0) 1481755903
Fax: 4401481728992
Web: www.applebyglobal.com/profile/view/65037/Eoin-O'Leary
Email: eoleary@applebyglobal.com
Address: Jardine Place 1 Connaught Place Central

Contact:

Fiona Chan, Corporate Partner
Tel: 85229055760
Fax: 85225245548
Web: www.applebyglobal.com/profile/view/78415/Fiona-Chan
Email: fchan@applebyglobal.com

Address: 33-37 Athol Street, Douglas

Contact:

Eleanor Dangerfield, Corporate Associate
Tel: 44 (0) 1624647690
Fax: 4401624618448
Web: www.applebyglobal.com/profile/view/65038/Eleanor-Dangerfield
Email: edangerfield@applebyglobal.com

Andrew Webb, Corporate Counsel
Tel: 44 (0) 1624647692
Fax: 4401624618448
Web: www.applebyglobal.com/profile/view/65132/Andrew-Webb
Email: awebb@applebyglobal.com

Simon Cain, Corporate Partner
Tel: 44 (0) 1624647642
Fax: 4401624618448
Web: www.applebyglobal.com/profile/view/64977/Simon-Cain
Email: scain@applebyglobal.com

Faye Moffett, Corporate Partner
Tel: 44 (0) 1624647631
Fax: 4401624618448
Web: www.applebyglobal.com/profile/view/64946/Faye-Moffett
Email: fmoffett@applebyglobal.com

Tom Brook, Corporate Counsel
Tel: 44 (0) 1624647624
Fax: 4401624618448
Web: www.applebyglobal.com/profile/view/65125/Tom-Brook
Email: trbrook@applebyglobal.com

Address: 13-14 Esplanade, St Helier

Contact:

Wendy Benjamin, Corporate Partner
Tel: 44 (0) 1534818057
Fax: 4401534837753
Web: www.applebyglobal.com/profile/view/64990/Wendy-Benjamin
Email: wbenjamin@applebyglobal.com

Danny Cole, Corporate Senior Associate
Tel: 44 (0) 1534818917
Fax: 4401534837917
Web: www.applebyglobal.com/profile/view/65028/Danny-Cole
Email: dcole@applybyglobal.com

Asset Brok'Air Switzerland

Address: rue de rive 8

Web: www.assetbrokair.com

Email: jgduboc@assetbrokair.com

Activities: JOLCO finance

Contact: Jean-Gael Duboc

Asters

Address: Leonardo Business Center, 14th Fl., 19-21 Bohdana Khmelnytskoho St., Kyiv 01030, Ukraine

Tel: + 380 44 230 6000,

Fax: +380 44230 6001

Web: www.asterslaw.com

Activities: Since 1995 Asters has developed one of the strongest aviation practices in Ukraine. Its lawyers regularly advise manufacturers of aircraft and their components, Ukrainian and international cargo and passenger carriers, airports, banks, insurance companies, tour operators and other members of the aviation market in the area of Ukrainian and international aviation, corporate, financial, licensing, antimonopoly, tax, administrative, labor law. The firm's aviation attorneys have significant expertise in aircraft sale, purchase, lease, fractional ownership, management and finance transactions, enabling us to deliver fast and top-quality solutions to our clients.

Contact:

Victoria Yesaulenko, Marketing Director
Email: victoria.yesaulenko@asterslaw.com

Oleksiy Demyanenko Partner
Email: oleksiy.demyanenko@asterslaw.com

Atsumi & Sakai

Address: Fukoku Seimei Bldg., 2-2-2 Uchisaiwaicho, Chiyoda-ku, Tokyo 100-0011 Japan

Tel: +81 3 5501 2111

Fax: +81 3 5501 2211

Web: www.aplaw.jp/en/

Email: info@aplaw.jp

Avation PLC

Address: 65 Kampong Bahru Road, Singapore 169370

Tel: +65 6252 2077,

Fax: +65 6252 5158

Web: www.avation.net

Activities: Avation PLC is a specialist commercial passenger aircraft leasing company managing a fleet of aircraft which it leases to airlines across the world.

Contact: Jeff Chatfield, Executive Chairman

AvCon Worldwide (Holdings) Limited

Address: 1/19 Belgrave Gardens, London NW8 0QY, UK

Tel: +44-20-7624-5605

Web: www.avconworldwide.aero

Email: jkim@avconworldwide.aero

Activities: Aircraft finance, lease, aviation consulting, aircraft trade

Avianca Holdings

Address: Avenida calle 26 # 59 – 15 P5, Bogotá, Colombia

Tel: 5877700

Web: www.aviancaholdings.com

Email: andres.ruiz@avianca.com

Activities: IR

Contact: Andres Ruiz

Avion Leasing Limited / Viking lease limited

Address: Grofin 1, 101 Reykjavik, Iceland

Web: www.aat.is

Activities: Leasing aircraft / Lease Management

Contacts:

Thorsteinn O. Thorsteinsson
Tel: +354 897 0320
Fax: +1 516 739 5044
Email: thorsteinn@aat.is

Magnus G. Thorstenn
Tel: +1 516 739 5048
Fax: +354 515 7799

AVITAS, Inc.

Address: 14520 Avion Parkway, Suite 300, Chantilly VA 20151

Tel: +1 703 476 2300

Fax:+1 703 860 5855

Web: www.AVITAS.com

Contacts:

Adam M. Pilarski Ph.D., Senior Vice President
Email: Adam.Pilarski@AVITAS.com
Activities: Full-service international aviation Consulting firm whose clients include financiers, lessors, OEM's, airlines, MRO's and lawyers. Activities include Asset Valuations, Industry Analysis & Forecasting, Technical Services & Maintenance Advice and Asset Management.

John Vitale
Email: John.Vitale@AVITAS.com
Activities: Aircraft Appraisal, Risk analysis, Aircraft Technical Management, Industry Analysis

Avmax

Address: 2055 Pegasus Road NE, Calgary, Alberta

Tel: 403 291 2464

Web: www.Avmax.com

Email: Info@Avmax.com

Activities: Aircraft Leasing, Airline Operations, Avionics, Component Repairs, Engines, Engineering, MRO, Paint and Spares

Avocet Insurance Consultants

Address: 48 Church Street, Orford, Suffolk IP12 2NT, UK

Tel: +44 (0) 20 3713 9515

Web: www.avocet.eu

Email: info@avocet.eu

Activities: Aviation insurance advisory to aircraft financiers and lessors

Avocet Risk Management Ltd

Address: AC House, 3 Preston Parade, Whitstable CT54AA, UK

Tel: +44 (0) 20 3713 9515

Web: www.avocet.eu

Email: info@avocet.eu

Activities: Aviation insurance advisory to aircraft financiers and lessors

Avolon

Address: Avolon, The Oval, Building 1, Shelbourne Road, Ballsbridge, Dublin 4, Ireland

Tel & Fax: +353 1 231 800

Web: www.avolon.aero

Email: jhiggins@avolon.aero

Activities: Aircraft Leasing

Contact: John Higgins

AWAS

Address: Block B Riverside IV SirJohn Rogersons Quay Dublin 2 Ireland

Tel: +353 1 635 5000

Fax: +353 1 635 5001

Web: www.awas.com

Email: info@awas.com

Activities: Aircraft Leasing Company

Bank ABC

Address: ABC Tower, Diplomatic Area, Manama, Bahrain

Tel: +973 1754 3637

Web: www.bank-abc.com

Email: jeremy.dixon@bank-abc.com

Activities: Aircraft Finance

Contact: Jeremy Dixon

Barclays

Address: 745 Seventh Avenue, New York, NY 10019

Tel: 1-212-526-0638

Fax: 1-646-758-2451

Email: george.kim@barclays.com

Activities: Transportation Finance, Banking

Contact: George Kim

Bartosz Czajka Bravo Charlie

Address: Wawozowa 6/227, 02-796 Warsaw, Poland

Tel: 48731724911

Web: www.bravocharlie.pl

Email: president@bravocharlie.pl

Activities: Airline Fleet Strategy, Aircraft Evaluation, Aircraft Transactions, Fuel Price Hedging

BayernLB

Address: Brienner Str. 18, D-80333 Munich, Germany

Tel: +44 (89) 2171 23513

Fax: +44 (89) 2171 23789

Web: www.bayernlb.de

Email: richard.lawrynowicz@bayernlb.de

Activities: ECA covered aircraft finance

Contact: Richard Lawrynowicz

BDO Ireland

Address: BDO 4 Michael Street Limerick, Ireland

Tel: 00353 87 2541923

Fax: 00353 61 414172

Web: www.bdo.ie

Email: gholliday@bdo.ie

Activities: Advisory and Outsourcing

Contact: Ger Holliday

Bedell Trust Ireland Limited

Address: 19/20 City Quay, Dublin 2, Ireland

Tel: +353 1 633 6030

Fax: +353 1 633 6049

Web: www.bedellgroup.com

Email: nigel.woods@bedellgroup.com

Activities: Finance - Corporate Services Provider

Bird & Bird

Address: Bird & Bird LLP, 12 New Fetter Lane, London EC4A 1JP, UK

Tel: + 44 207 905 6394

Fax: + 44 207 415 6111

Web: www.twobirds.com

Email: brett.hailey@twobirds.com

Activities: Legal

Contact: Brett Hailey

Address: Bird & Bird LLP, 2 Shenton Way, #18-01 SGX Centre 1, Singapore 068804

Tel: +65 6534 5266

Fax: +65 6223 8762

Web: www.twobirds.com

Email: leo.fattorini@twobirds.com

Activities: Legal, Aviation Finance and Leasing

Contact: Leo Fattorini

Blake, Cassels & Graydon LLP

Address: 199 Bay Street, Suite 4000, Commerce Court West, Toronto ON M5L 1A9, Canada

Tel: +1 (416) 863 2400

Fax: +1 (416) 863 2653

Web: www.blakes.com

Email: toronto@blakes.com

Activities: Advise aircraft lessors, financiers, manufacturers, and domestic and international airlines on aircraft finance and aviation commercial and regulatory law matters.

Contacts:

Robert M. Granatstein Firm Managing Partner
Tel: +1 (416) 863-2748
Email: robert.granatstein@blakes.com

Brock W. Gibson
Tel: +1 (403) 260 9610
Email: brock.gibson@blakes.com

Donald Gray, Co-Chairs, Aviation & Aerospace Group
Tel: +1 (416) 863 2400
Fax: +1 (416) 863 2653
Email: donald.gray@blakes.com

Nathan Cheifetz, Co-Chairs, Aviation & Aerospace Group
Tel: +1 (416) 863 2400
Fax: +1 (416) 863 2653
Email: nathan.cheifetz@blakes.com

Address: 855 - 2nd Street S.W., Suite 3500, Bankers Hall East Tower, Calgary AB T2P 4J8, Canada

Tel: +1 (403) 260 9600

Fax: +1 (403) 260 9700

Email: calgary@blakes.com

Address: 595 Burrard Street, P.O. Box 49314, Suite 2600, Three Bentall Centre, Vancouver BC V7X 1L3, Canada

Tel: +1 (604) 631 3300

Fax: +1 (604) 631 3309

Email: vancouver@blakes.com

Address: 340 Albert Street, Suite 1750, Constitution Square, Tower 3, Ottawa ON K1R 7Y6, Canada

Tel: +1 (613) 788 2200

Fax: (613) 788 2247

Email: ottawa@blakes.com

Address: 1 Place Ville Marie, Suite 3000, Montréal QC H3B 4N8, Canada

Tel: +1 (514) 982 4000

Fax: +1 (514) 982 4099

Email: montreal@blakes.com

BNDES

Address: Av Republica do Chile, 330, Rio de Janeiro, Brazil

Tel: +55 21 2172-8568

Web: www.bndes.gov.br

Email: airfinance@bndes.gov.br

Activities: Air Financing

Contact: Marcio Nobre Migon

BNP Paribas

Address: 10 Collyer Quay, #34-01 Ocean Financial Centre, Singapore 049315

Tel: 65 62101804

Email: sharon.yeoh@asia.bnpparibas.com

Activities: Transaction Management

Contact: Sharon Yeoh

Bombardier

Address: 123 Garatt Blvd, North York, Toronto M3K 1Y5, Canada

Tel: 416-373-6816

Email: gongxin.xu@aero.bombardier.com

Activities: Engineering

Contact: Gong-Xin Xu

BUDDLE FINDLAY

Address: PricewaterhouseCoopers Tower, 188 Quay Street, PO Box 1433, Auckland 1140, New Zealand

Tel: +64 9 358 2555

Direct: +64 9 358 7016

Mobile: +64 21 635 646

Fax: +64 9 363 0716

Web: www.buddlefindlay.com

Email: frank.porter@buddlefindlay.com

Activities: Financing, leasing, insurance, liability and regulatory

Contact: Frank Porter, Partner

Burnham Sterling & Company LLC

Address: 29 River Road, Suite 102

Tel & Fax: (203) 862 4800

Web: www.burnhamsterling.com

Activities: Financial advisory and capital raising services to the transportation industry.

Contact: Mike Dickey Morgan
Email: mike.morgan@burnhamsterling.com

Address: 2Bis avenue Junot

Tel: 33658477505

Activities: Aircraft financing

Contact: Laurence Mosse
Email: laurence.mosse@burnhamsterling.com

Credit Agricole

Address: 1000 Marie-Victorin, Longueuil, Qc, Canada, J4G1A1

Tel: 450-647-7407

Web: www.pwc.ca

Email: martin.letarte@pwc.ca

Activities: Engine Sale and Leasing

Contact: Martin Letarte

Cabot Aviation
Address: 2 City Place, Beehive Ring Road, Gatwick, West Sussex RH6 0PA, UK
Tel: +44 1293 844759
Web: www.cabotaviation.com
Activities: Aircraft Remarketing, wet leasing and consultancy

Contacts:

Tony Whitty
Email: tony@cabotaviation.com

Greg Cope
Email: greg@cabotaviation.com

Charley Cleaver
Email: charley@cabotaviation.com

Cafico International
Address: Palmerston House, Fenian Street, Dublin 2, Ireland

Web: www.caficointernational.com

Activities: Cafico International provides corporate administration, accounting and trustee services to asset finance and aircraft leasing transactions executed through special purpose vehicles and trading companies established in Ireland.

Contacts:

Rodney O'Rourke, Managing Director
Tel: +353 (0)1 905 8021
Fax: +353 (0)1 905 8095
Email: Rodney.orourke@caficointernational.com

Damian Agnew, Director of Financial Services
Tel: +353 (0)1 905 8020
Fax: +353 (0)1 905 8029
Email: Damian.agnew@caficointernational.com

Capita Asset Services
Address: 2 Grand Canal Square, Grand Canal Square, Dublin 2, Ireland

Tel: 35312240526

Web: www.capitaassetservices.com

Email: paul.nunan@capita.ie

Activities: Fund Administration, AIFM, UCITS 3rd Party Manager

Contact: Paul Nunan

Capital Aviation
Address: Johannesburg South Africa

Tel: 27832504444

Fax: 27114658668

Web: www.capitalaviation.net

Email: frank.rehrl@capitalaviation.net

Activities: Aircraft Leasing

Contact: Frank Rehrl

Address: Brisbane, Australia

Tel: 61410299191

Email: ryan.sullivan@capitalaviation.net

Contact: Ryan Sullivan

Carbon60 Global
Address: Carbon 60, Delme one, Delme Place, Cams Hall Estate, Fareham, Hants, PO16 8UX, UK

Tel: 01329 227 042

Web: www.carbon60global.com

Email: Jenna.Beard@carbon60global.com

Activities: Aviation Engineering Recruitment, Outsourced Technical and Non-technical projects/packages of work, Training

Contact: Jenna Beard

Century Tokyo Leasing
Address: 3, Kanda-neribeicho, Chiyoda-ku, Tokyo Japan 101-0022

Tel: 03-5209-6918

Fax: 03-5296-0234

Email: mikami.f@ctl.co.jp

Contact: Fumika Mikami

CIC
Address: 12 Marina Boulevard, #37-01 MBFC Tower 3, Singapore 018982

Tel: 62319888

Fax: 64380625

Web: www.cic.com.sg

Email: leon.phan@singapore.cic.fr

Activities: Aviation finance

Contact: Leon Phan

Clifford Chance LLP

Address: 9th Floor, Al Sila Tower, Abu Dhabi Global Market Square, PO Box 26492, Abu Dhabi, United Arab Emirates

Tel: +971 (0)2 613 2300

Web: www.cliffordchance.com

Email: Antony.Single@CliffordChance.com

Activities: Provides counselling on strategic transaction management and legal advice for a range of clients including banks; arrangers; finance and operating lessors; investors; airlines; export credit agencies; governmental authorities; and manufacturers to facilitate multi-jurisdictional deals involving multiple parties and high-value assets.

Contact: Antony Single

Address: Droogbak 1A, 1013 GE Amsterdam, PO Box 251, 1000 AG Amsterdam, The Netherlands
Tel: +31 20 7119 000
Email: Hein.Tonnaer@CliffordChance.com
Contact: Hein Tonnaer

Address: Königsallee 59, 40215 Düsseldorf, Germany
Tel: +49 211 43 55-0
Email: Florian.Mahler@CliffordChance.com
Contact: Florian Mahler

Address: Mainzer Landstraße 46, 60325 Frankfurt am Main, Germany
Tel: +49 69 71 99-01
Email: Edmund.Boyo@CliffordChance.com
Contact: Edmund Boyo

Address: Mainzer Landstraße 46, 60325 Frankfurt am Main, Germany
Tel: +49 69 71 99-01
Email: Riko.Vanezis@CliffordChance.com
Contact: Riko Vanezis

Address: Mainzer Landstraße 46, 60325 Frankfurt am Main, Germany
Tel: +49 69 71 99-01
Email: Tobias.Schulten@CliffordChance.com
Contact: Tobias Schulten

Address: 10 Upper Bank Street, London, E14 5JJ, United Kingdom
Tel: +44 20 7006 1000

Contacts:

William Glaister
Email: William.Glaister@CliffordChance.com

Robert Burley
Email: Robert.Burley@CliffordChance.com

Paul Carrington
Email: Paul.Carrington@CliffordChance.com

Oliver Hipperson
Email: Oliver.Hipperson@CliffordChance.com

Ranbir Hunjan
Email: Ranbir.Hunjan@CliffordChance.com

Geoffrey White
Email: Geoffrey.White@CliffordChance.com

Address: Paseo de la Castellana 110, 28046 Madrid, Spain
Tel: +34 91 590 75 00
Email: Stuart.Percival@CliffordChance.com
Contact: Stuart Percival

Address: Piazzetta M.Bossi, 3, 20121 Milan, Italy
Tel: +39 02 806 341
Email: Giuseppe.DePalma@cliffordchance.com
Contact: Giuseppe de Palma

Address: Ul. Gasheka 6, 125047 Moscow, Russian Federation
Tel: +7 495 258 5050
Email: Victoria.Bortkevicha@CliffordChance.com
Contact: Victoria Bortkevicha

Address: 1 rue d'Astorg, CS 60058, 75377 Paris Cedex 08, France
Tel: +33 1 44 05 52 52
Email: Bruno.Vannini@CliffordChance.com
Contact: Bruno Vannini

Address: Sindhorn Building Tower 3, 21st Floor, 130-132 Wireless Road, Pathumwan, Bangkok 10330, Thailand
Tel: +66 2 401 8800
Email: Fergus.Evans@cliffordchance.com
Contact: Fergus Evans

Address: 27th Floor, Jardine House, One Connaught Place, Hong Kong
Tel: +852 2825 8888
Email: Paul.Greenwell@CliffordChance.com
Contact: Paul Greenwell

Address: 12 Marina Boulevard, 25th Floor Tower 3, Marina Bay Financial Centre, Singapore 018982
Tel: +65 6410 2200
Email: Simon.Briscoe@CliffordChance.com
Contact: Simon Briscoe

Address: Akasaka Tameike Tower, 7th Floor, 17-7 Akasaka 2-Chome, Minato-ku, Tokyo 107-0052, Japan
Tel: +81 3 5561 6600
Email: Hidehiko.Suzuki@CliffordChance.com
Contact: Hidehiko Suzuki

Address: 31 West 52nd Street, New York, NY 10019-6131, USA
Tel: +1 212 878 8000

Contacts:

Emily DiStefano
Email: Emily.DiStefano@CliffordChance.com

John Howitt
Email: John.Howitt@CliffordChance.com

Patrick O'Reilly
Email: Patrick.OReilly@CliffordChance.com

Zarrar Sehgal
Email: Zarrar.Sehgal@CliffordChance.com

CloudCARDS

Address: CloudCARDS Ltd. Gortatogher House, Parteen, Co.Clare, Ireland

Tel: +353 61 748767

Web: www.cloudcards.ie

Email: peter@cloudcards.ie

Activities: Aircraft Asset Management & Technical Services

Contact: Peter Collins

Clyde & Co

Address: The St Botolph Building, 138 Houndsditch, London EC3A 7AR, UK

Tel: +44 20 7876 5000

Fax: +44 20 7876 5111

Web: www.clydeco.com

Email: mark.bisset@clydeco.com

Activities: Recognised as the world's leading aviation practice (Who's Who Legal 2005-16) with over 80 dedicated aviation lawyers, offering global specialist aviation advice. The finance team acts for banks, lessors and airlines, and is recognised as 1st ranked globally for business jets (Chambers and Partners).

Contact: Mark Bisset, Partner

CMB Financial Leasing Co.

Address: 23F, China Merchants Bank Building, No.1088 Lujiazui Ring Road, Shanghai, China

Tel: 86-21-61061736

Web: www.cmb-leasing.com

Activities: Aircraft leasing

Contacts:

Zhou Yuxiao
Email: Lisaxier13@cmbchina.com

Wei Xi
Email: Weixi@cmbchina.com

Collateral Verifications

Address: 6 Wilson Rd., Weston CT 06883, USA

Web: www.cvllc.net

Email: gdechavanne@cvllc.net

Activities: Appraisal, Advisory, and Technical Services

Contact: Gueric Dechavanne

Commerce Bank

Address: Commerce Bank 950 N. Western Ave, Lake Forest, IL 60045 USA

Tel: 01-847-295-4601

Fax 01-847-295-4604 (fax)

Web: www.commercebank.com

Email: sean.patrick@commercebank.com

Activities: Aviation Finance and Leasing

Contact: Sean K. Patrick

Congoairways

Address: 130 boulevard du 30 juin, Kinshasa, Congo DRC

Tel: 243817098055

Web: www.congoairways.com

Email: jerome.maillet@congoairways.com

Activities: Management

Contact: Jerome Maillet

Contrail Aviation Support

Address: 435 Investment Court

Tel: 608-848-8100

Fax: 608-848-8101

Web: www.contrail.com

Email: ken@contrail.com

Activities: Narrowbody aircraft / engine leasing and acquisition

Contact: Ken De Jaeger

Contrail Aviation Support, LLC

Address: 435 Investment Court

Tel: 608-848-8100

Fax: 608-848-8101

Web: www.contrail.com

Email: jackie@contrail.com

Activities: Aftermarket supplier

Contact: Jackie Servi

Cranfield University

Address: Cranfield University, College Road, Cranfield, Beds MK43 0AL, UK

Tel & Fax: 01234 750111

Web: www.cranfield.ac.uk

Email: enquiries@cranfield.ac.uk

Activities: University specialising in aerospace research, postgraduate degrees and continuing professional development courses

Contact: Professor Graham Braithwaite, Director of Transport Systems

Deacons

Address: 5th Floor, Alexandra House, 18 Chater Road, Hong Kong, SAR

Tel: +852 2825 9211

Web: www.deacons.com.hk

Email: hongkong@deacons.com.hk

Activities: Banking & Finance, Capital Markets, Competition, Construction, Corporate & M&A, Employment & Pensions, Insolvency & Restructuring, Insurance, Intellectual Property, Investment Funds, Litigaiton & Dispute Resolution, Private Clients, Real Estate, Regulatory, Tax

Debevoise

Address: Business Center Mokhovaya, 4/7 Vozdvizhenka Street, Bld.2, Moscow, 125009, Russia

Tel: +7 495 956 3858

Fax: +7 495 956 3868

Web: www.debevoise.com

Activities: International legal experts in all fields of aviation industry, including aircraft sale, purchase and corporate financing , aviation M&A, joint ventures, issue of debt and equity securities by aviation businesses in the international capital markets, aircraft securitizations and issue of EETC.

Contacts:

Alan Kartashkin
Email: akartashkin@debevoise.com

Dmitry Karamyslov
Email: dakaramyslov@debevoise.com

Burgess P. Geoffrey
Email: gpburges@debevoise.com

Deloitte

Address: Earlsfort Terrace, Dublin 2, Ireland.

Tel: +353 (1) 417 2200

Fax: +353 (1) 417 2300

Web: www.deloitte.com/ie.

Activities: Provision of audit, consulting, corporate finance and taxation services to both aircraft leasing companies and airline organisations.

Contact: Partner: Pieter Burger
Tel: +353 (1) 417 2446
Email: piburger@deloitte.ie

Dentons UKMEA LLP

Address: 1 Fleet Place, London, EC4M 7WS, UK

Tel: +44 (20) 7242 1212

Fax: +44 (20) 7246 7777

Web: www.dentons.com

Activities: Represent airlines, banks and lessors in transactions involving financing, leasing and buying aircraft.

Contacts:

Greg Kahn, Partner

Nick Chandler, Partner
Email: nick.chandler@dentons.com

Bill Gibson, Partner

Sarah Dyke

Serge Sergiou

Paul Holland

Deepak Reddy
Email: deepak.reddy@dentons.com

Dikici Law Office

Address: Dergiler Sok. No. 16/8, Esentepe, Istanbul, Turkey

Tel: +90 212 288 49 19

Fax: +90 212 288 49 12

Web: www.dikici-law.com

Email: office@dikici-law.com

Activities: Aviation and Commercial Law

Contact: Fulya Dikici

DORIC GMBH

Address: Berliner Strasse 114 - 116, 63065 Offenbach am Main, Germany

Tel: +49 (69) 247559 270,

Fax: +49 (69) 247559 990

Web: www.doric.com

Email: martina.allinger@doric.com

Activities: Arranging, structuring and managing aircraft investments. The Doric team has successfully concluded numerous aircraft transactions including sale and operating lease backs, acquisitions with leases attached, finance leases, onward operating lease placements (with redelivery and delivery transits), straight sales and sales for part-out. Doric's current aircraft portfolio is based in Africa, Asia, Europe, the Middle East and North America.

Contact: Martina Allinger, Head of Communications

DVB Bank

Address: 77 Robinson Road #30-02 Singapore 068896

Tel: +65 65113436

Fax: +65 65110700

Web: www.dvbbank.com

Email: angela.chang@dvbbank.com

Activities: Financial Institutions and Syndications team

Contact: Angela Chang

Emirates Airline

Address: Dubai, UAE

Tel: +971 4 218 1122

Fax: +971 4 299 7851

Web: www.emirates.com

Email: Ammar.Alzaben@Emirates.com

Activities: Aircraft Purchasing, Aircraft Sale, Aircraft Lease, Technical Procurement

Contact: Ammar Fayez Al-Zaben

Empire Aviation Group

Address: Unit F-06 Dubai Airport Free Zone, P.O. Box 293827, Dubai, UAE

Tel: +971 4 299 8444

Fax: +971 4 299 8445

Web: www.empire.aero

Email: info@empire.aero

Activities: Aircraft Management, Charters, Sale and Purchase Advisory

Contact: Paras Dhamecha

Engine Lease Finance Corporation

Address: Building 156 Shannon Free Zone, Shannon, Co. Clare, Ireland

Tel: +353 61 363555

Fax: +353 61 361785

Web: www.elfc.com

Email: info@elfc.com

Activities: Aircraft Engine Leasing

Equus Global Aviation, LLC

Address: 5491 N. University Dr Suite 104-A

Tel: (954) 304 - 2342

Web: www.EquusGlobalAviation.com

Email: Sales@EquusGlobalAviation.com

Activities: Aircraft Acquistions, Sales & Leasing. Authorized Agent for the Aerion AS2 Supersonic

Etihad Airways

Address: New Airport Road, Khalifa City A, P.O. Box 35566, UAE

Tel: 971564187812

Fax: 97125112398

Email: dsanghavi@etihad.ae

Contact: Dilip Sanghavi, Head of International Treasury

EXIM Bank

Address: West Tower Chemsunny World Trade Center,No.30 Fu Xing Men Nei Street, Beijing 100031, China

Tel: 86-10-83579511

Fax: 86-10-83578428

Email: lumizi@eximbank.gov.cn

Activities: Aviation Finance

Contact: Lu Mizi

Falko Regional Aircraft Limited

Address: 1 Bishop Square, St Albans Road West, Hatfield, Hertfordshire, AL10 9NE, UK

Tel: 01707 271777

Web: www.falko.com

Email: info@falko.com

Activities: Aircraft Leasing

Felsberg Advogados

Address: Floriano Square, 19 – 15th floor – Centro – Rio de Janeiro – Brazil

Tel: +55 (21) 2156-7500

Web: www.felsberg.com.br

Activities: Legal Assistance

Contacts:

João Paulo Servera
Email: jpservera@felsberg.com.br

Marcela Correa
Email: marcelacorrea@felsberg.com.br

Thaiana Labolita
Email: thaianalabolita@felsberg.com.br

Silvana Gomes
Email: silvanagomes@felsberg.com.br

FGL Aircraft Ireland Limited

Address: Block 4, Harcourt Centre Harcourt Street Dublin 2, Ireland

Tel: +353-1-477-3462

Fax: +353-1-402-9586

Web: www.fgl.co.jp/eng/

Email: takashi.watanabe@fglair.com

Activities: Aircraft Leasing

Contact: Takashi Watanabe

Firnasairways

Address: 255 Commercial Road

Web: www.firnasairways.com

Email: nfo@firnasairways.co

Activities: Management

Contact: Kazi Shafiqur Rahman

Fisher Legal

Address: Los Angeles, CA, USA

Tel: +1 310 990 9375

Web: www.fisher-legal.com

Email: shani@fisher-legal.com

Activities: Legal Services, Aircraft Finance, Leasing, Sales

Contact: Shani Smith Fisher

Fits Air

Address: 11A Milepost Avenue

Tel: 94772266275

Web: www.fitsair.com

Email: ammar.kassim@fitsair.com

Activities: Aircraft leasing, Wet lease/Dry Lease, certified AOC

Contact: Ammar Kassim

Fontainburg Aviation Capital

Address: Suite E1, 21/F, Xinda Plaza, 1399 West Beijing Road, Shanghai

Tel: 86 21 62893186

Fax: 86 21 62891545

Web: www.fontainburg.com

Email: enquiry@fontainburg.com

Activities: Aviation investment management, Aviation asset management, Aviation advisory

FPG Amentum

Address: 4th Floor Mespil Court, Mespil Road. Dublin 4, Ireland

Tel: 01 639 8122

Fax: 01 639 8118

Web: www.fpg-amentum.aero

Email: mitchel.simpson@fpg-amentum.aero

Activities: Aircraft Leasing

Contact: Mitchel Simpson

FRORIEP

Address: 17 Godliman Street, London EC4V 5JP, UK

Tel: 020 7236 6000

Web: www.froriep.com

Email: dkoch@froriep.ch

Activities: Aviation Finance

Contact: Dunja Koch

GANADO Advocates

Address: GANADO Advocates, 171, Old Bakery Street, Valletta VLT 1455, Malta

Tel: 00356 2123 5406

Web: www.ganadoadvocates.com

Email: daquilina@ganadoadvocates.com

Activities: Aircraft Finance, Aircraft Registration, Ship Finance

Contact: Daniel Aquilina

Gateley Plc

Address: Gateley plc, 1 Paternoster Square, London EC4M 7DX, UK

Tel: 0207 653 1634

Web: www.gateleyplc.com

Email: paul.dickie@gateleyplc.com

Activities: Shipping & Aviation

Contact: Paul Dickie

GCAP Aviation Partners

Address: Hanger H1,Cotswold Airport, Cirencester, Gloucestershire, GL7 6BA, UK

Tel: 441285771363

Fax: 441285770861

Web: www.aviation-partners.co.uk

Email: bill.cumberlidge@aviation-partners.co.uk

Activities: Aircraft / Engine leasing, aircraft end of life management.

Contact: Bill Cumberlidge

GE

Address: Sovereign Court, 635 Sipson Road, Middlesex, UK UB7 0JE, UK

Tel: 7747790334

Web: www.ge.com

Email: kelly.cole@ge.com

Activities: Aviation

Contact: Kelly Cole

Global AirFinance Services, Inc

Address: 884 West End Avenue, New York, NY, USA

Tel: 516-698-7968

Web: ewallach@globalairfinance.com

Activities: Consulting

Globalfboconsult

Address: Dublin-Weston executive Airport, W23 XHF8, Dublin, Ireland

Tel: 353872029325

Web: www.globalFBOconsult.me

Email: Joe@GlobalFBOConsult.me

Activities: EMEA

Contact: Joe McDermott

Goldman, Sachs & Co.

Address: 200 West Street, New York, NY, USA

Tel: 212-357-3568

Fax: 917-977-4651

Web: www.gs.com

Email: jared.ailstock@gs.com

Activities: Structured Finance - Transportation

Contact: Jared Ailstock

Grant Thornton

Address: 24-26 City Quay, Dublin 2, Ireland

Tel: +353 1 4366519

Web: www.grantthornton.ie/industry/aviation/

Email: john.perry@ie.gt.com

Contact: John Perry, Head of Aviation

Greenberg Traurig, LLP

Address: MetLife Building, 200 Park Avenue, New York, NY 10166

Tel: 212 801 9200

Fax: 212 801 6400

Web: www.gtlaw.com

Activities: Representation of all segments of the aviation industry in equipment leasing and financing transactions, sales and acquisitions, both domestic and cross-border.

Greenberg Traurig, P.A.

Address: 333 SE 2nd Avenue, Suite 4400, Miami, FL 33131, USA

Web: www.gtlaw.com

Activities: Representation of all segments of the aviation industry in equipment leasing and financing transactions, sales and acquisitions, both domestic and cross-border.

Contacts:

Jeffrey S. Tenen
Tel: 305 579 0727
Fax: 305 961 5729
Email: tenenj@gtlaw.com

Israel I. Sanchez
Tel: 305 579 0728
Fax: 305 961 5677
Email: sanchezi@gtlaw.com

Ellen H. Fontanella
Tel: 305 579 0591
Fax: 305 579 0717
Email: fontanellae@gtlaw.com

Helaba Landesbank Hessen-Thüringen

Address: MAIN TOWER Neue Mainzer Strasse 52-58, Germany

Tel: +49 69 9132 4450

Fax: +49 69 9132 84450

Web: www.helaba.com

Email: Joerg.Schirrmacher@helaba.de

Activities: Banking

Hogan Lovells

Address: 50 Nowogrodzka Street, 00-695 Warsaw, Poland

Tel: +48 22 529 29 00

Fax: +48 22 529 29 01

Web: www.hoganlovells.com

Email: hoganlovells.warsaw@hoganlovells.com

Activities: Hogan Lovells is a global legal practice offering comprehensive legal and tax assistance across more than 45 offices located on six continents. The Hogan Lovells Warsaw office is one of the leading law firms in Poland. We comprehensively advise in the fields of: corporate law, M&A, taxes, banking and finance, infrastructure projects, PPP, public procurement, real estate, bankruptcy law, competition/antitrust law, IP, labour law, litigation and arbitration.

Contact: Beata Balas-Noszczyk

Holland & Knight

Address: Holland & Knight (UK) LLP, Waterman House, 41 Kingsway, London WC2B 6TP, UK

Tel: 0207 240 6767

Fax: 0207 836 0699

Web: www.hklaw.com

Email: ian.clark@hklaw.com

Contact: Ian Clark

Holman Fenwick Willan

Address: 15th Floor, Tower 1, Lippo Centre, 89 Queensway, Admiralty, Hong Kong SAR

Tel: +852 3983 7713

Fax: +852 3983 7766

Web: www.hfw.com

Activities: Holman Fenwick Willan is an international law firm with over 450 lawyers and other legal professionals working across Europe, the Middle East, Asia, Australia and South America. The Firm has a pre-eminent aircraft finance practice acting for financial institutions, operating lessors and airlines globally in a broad spectrum of transactions ranging from export credit financings, Islamic financing, Japanese operating leases, Italian tax leases, French tax leases with commercial debt to operating leases, pre-delivery payment financing, bridge financings, sale and lease back and restructuring and insolvency. Our team has been at the forefront of legal developments in the aviation sector for over three decades and currently comprises over 40 specialist aviation lawyers. We also have one of the largest dispute resolution practices, with strengths in court, arbitration and alternative dispute resolution processes. Our aircraft finance teams are located across our international office network, with dedicated lawyers in London, Paris, Dubai, Singapore, Hong Kong and Sydney.

Contact: Justin Sun
Email: justin.sun@hfw.com

Address: 1 Bligh Street, Sydney NSW 2000, Australia

Tel: +61 (0)2 9320 4604

Fax: +61 (0)2 9320 4666

Email: leigh.borrello@hfw.com

Contact: Leigh Borrello

Holman Fenwick Willan France LLP

Address: 25-27 rue d'Astorg, 75008 Paris, France

Tel: +33 1 44 94 40 50

Fax: +33 1 42 65 46 25

Web: www.hfw.com

Contacts:

Shyamal Jeewoolall
Email: shyamal.jeewoolall@hfw.com

Pierre Frühling
Email: pierre.fruhling@hfw.com

Holman Fenwick Willan LLP

Address: 65 Crutched Friars, London EC3N 2AE, UK

Tel: +44 (0)20 7264 8777

Fax: +44 (0)20 7264 8888

Web: www.hfw.com

Contacts:

Barbara Pansadoro
Email: barbara.pansadoro@hfw.com

Zohar Zik
Tel: +44 (0)20 7264 8251
Email: zohar.zik@hfw.com

Address: Blue Tower, Avenue Louise 326, 1050 Bruxelles, Belgium

Tel: +32 (0) 2643 3406

Fax: +32 2 643 3488

Email: pierre.fruhling@hfw.com

Contact: Pierre Frühling

Holman Fenwick Willan Middle East LLP

Address: Level 8, Barclays Building Emaar Square, Sheikh Zayed Road, Dubai, UAE

Tel: +971 4 423 0568

Fax: +971 4 425 7941

Web: www.hfw.com

Email: shyamal.jeewoolall@hfw.com

Contact: Shyamal Jeewoolall

Holman Fenwick Willan Singapore LLP

Address: 3 Church Street, 19-03 Samsung Hub, Singapore 049483

Fax: +65 6411 5355

Web: www.hfw.com

Contacts:

Leigh Borrello
Tel: +65 6411 5329
Email: leigh.borrello@hfw.com

David Brotherton
Tel: +65 6411 5360
Email: david.brotherton@hfw.com

Shyamal Jeewoolall
Tel: +65 6411 5300
Email: shyamal.jeewoolall@hfw.com

Hudson Structured Capital Management

Address: One Dock Street, Suite 404, Stamford, CT USA

Tel: 203-975-4853

Web: www.hscm.com

Email: David.andrews@hscm.com

Activities: Transportation Equipment Finance

Contact: David S. Andrews

Hughes Hubbard & Reed LLP

Address: 1775 I Street, N.W., Washington, DC 20006

Tel: 202 721 4600

Fax: 202 721 4646

Web: www.hugheshubbard.com

Email: steven.chung@hugheshubbard.com

Activities: Hughes Hubbard has extensive experience in representing major U.S. and foreign airlines, leasing companies, financial institutions and other participants in the aviation industry. We have represented some of the world's leading industry players in their most important transactions

Contact: Steven Chung

IAM Aviation

Contact: Thomas Imboden

Address: Wässeri 6

Tel: 0041 43 211 0052

Email: thomas.imboden@iam-aero.com

Activities: Advisory

IATA

Address: IATA VP Corporate Communications

800 Place Victoria PO Box 113 Montreal - H4Z 1M1 Quebec - Canada

Tel: +1 514 874 0202

Fax: +1 514 874 9632

Web: www.iata.org

Email: corpcomms@iata.org

Contact: Anthony Concil

Address: Executive Offices 33, Route de l'Aeroport, PO Box 4161215, Geneva - 15 Airport Switzerland

Tel: +41 22 770 2525

Fax: +41 22 798 3553

Web: www.iata.org

Email: corpcomms@iata.org

IBA Group

Address: Xiaoyun Center, Tower A, Suite 1602, No 15. Xiaguangli, Chaoyang District, Beijing, 100026, P.R. China

Tel: +86 186 0104 7296

Web: www.ibagroup.com

Email: dy999@rocketmail.com

Activities: Consulting, appraisal, technical services, asset management

Contact: Prof. David Yu CFA

ICBC Leasing

Address: 2 Grand Canal Square, Dublin

Tel: 01 2240600

Email: damienflaherty@ie.icbcleasing.com

Activities: Legal

Contact: Damien Flaherty

Icelease ehf.

Address: Ingolfsstraeti 5, Reykjavik, Iceland

Tel: 3545602012

Fax: 3545602011

Web: www.icelease.is

Email: info@icelease.is

Activities: Aircraft leasing and trading

Contact: Sigthor Einarsson

Tel: 3545602015

Fax: 3545602011

Email: sigthor@icelease.is

Ince & Co

Address: 3801-6, 38th Floor, ICBC Tower, 3 Garden Road, Central, Hong Kong, SAR

Tel: +852 2877 3221

Fax: +852 2877 2633

Web: www.incelaw.com

Email: balbir.bindra@incelaw.com

Activities: An international law firm specialising in advising on term sheets, secured and unsecured lending, export credit finance, operating leases, finance leases and transactions relating to the sale and purchase, leasing and chartering of, and investment in, aircraft assets.

Contact: Balbir Bindra, Partner

Ince & Co France SCP

Address: 4, Square Edouard VII, Paris, 75009 France

Tel: +33 (0)1 53 76 91 00

Fax: +33 (0) 1 53 76 91 26

Web: www.incelaw.com

Email: laurence.hanley@incelaw.com

Activities: An international law firm specialising in advising on term sheets, secured and unsecured lending, export credit finance, operating leases, finance leases and transactions relating to the sale and purchase, leasing and chartering of, and investment in, aircraft assets.

Contact: Laurence Hanley, Partner

Ince & Co LLP

Address: Aldgate Tower, 2 Leman Street, London, E1 8QN, UK

Tel: +44 (0)207 481 0010,

Fax: +44 (0) 20 7481 4968

Web: www.incelaw.com

Email: will.cooper@incelaw.com

An international law firm specialising in advising on term sheets, secured and unsecured lending, export credit finance, operating leases, finance leases and transactions relating to the sale and purchase, leasing and chartering of, and investment in, aircraft assets.

Contact: Will Cooper, Partner

Ince & Co Middle East LLP (Dubai Branch)

Address: The Maze Tower, 10th Floor, Sheikh Zayed Road, P.O. Box 123004, Dubai, UAE

Tel: +971 4 307 6000

Fax: +971 4 307 6001

Web: www.incelaw.com

Email: tom.briggs@incelaw.com

An international law firm specialising in advising on term sheets, secured and unsecured lending, export credit finance, operating leases, finance leases and transactions relating to the sale and purchase, leasing and chartering of, and investment in, aircraft assets.

Contact: Tom Briggs, Partner

Inception Aviation

Address: Xiaoyun Center, Tower A, Suite 1602, No 15. Xiaguangli, Chaoyang District, Beijing, 100026, China

Tel: +86 186 0104 7296

Web: www.inceptionaviation.com

Email: david.yu@inceptionaviation.com

Activities: Investments

Contact: Prof. David Yu CFA

Indaer

Address: Calle 16 No. 41-210 Medellín - 050021, Colombia

Tel: +574 5206320

Web: www.indaer.aero

Activities: MRO, Technical Services

Contacts:

Daniel Restrepo
Email: drestrepo@indaer.com

Sebastian Jimenez
Email: sjimenez@indaer.com

ING Capital LLC

Address: New York, NY, USA

Fax: 1-6464246730

Web: www.ing.com

Contacts:

Terina Golfinos, Managing Director - Team Head Structured Export Finance
Tel: 1-6464246738
Email: terina.golfinos@ing.com

Gemma H. Bae, Managing Director - Structured Export Finance
Tel: 1-6464246737
Email: gemma.bae@ing.com

David Jaquet, Director - Structured Export Finance
Tel: 1-6464246736
Email: david.jaquet@ing.com

Gerhard van der Poel Director - Structured Export Finance
Tel: 1-6464246733
Email: gerhard.van.der.poel@ing.com

Sytze Mollema, Associate - Structured Export Finance
Tel: 1-6464246449
Email: sytze.mollema@ing.com

International Airfinance Corporation

Address: Almas-06-E, Almas Tower, Jumeirah Lakes Towers PO Box 413822 Dubai, UAE

Tel: + 971-4-56-34-333

Fax: +971-4-456-4895

Web: www.iairfinance.com

Email: alaoui@iairfinance.com

Activities: Aircraft Financing and Leasing

Contact: Moulay Omar Alaoui

International Aviation Services Group (IASG)

Address: XL House, Mill Court, Spindle Way, Crawley, West Sussex, RH10 1TT, UK

Tel: +44 1293 312040

Fax: +44 8704 601229

Web: www.iasg.co.uk

Email: cliff@iasg.co.uk

Activities: Consulting, Asset Management, Risk Management

Contact: Cliff Brown

Intrepid Aviation

Address: 263 Tresser Blvd, Suite 1000, Stamford CT 06901 USA

Tel: +1 203 905 4220

Email: info@intrepidaviation.com

Web: www.intrepidaviation.com

Contact: Olaf Sachau CEO, Doug Winter, President & CCO

Investec

Address: 100 Grayston Drive, Sandton, Johannesburg, South Africa

Tel: +27 11 286 7908

Web: www.investec.co.za/products-and-services/financing-and-lending/aviation-finance.html

Email: David.Minty@investec.co.za

Activities: Corporate jet finance, Operating leases, Cross-border and tax based leasing, Debt arranging including export credit finance and commercial debt PDP finance, Senior loans, Mezzanine debt/asset finance, Airline advisory services

Contact: David Minty

ISIS Aviation Services Ltd

Address: Station Road, Norwich NR15 2DJ, UK

Tel: +44 797 113 1130

Web: www.isisaviation.com

Email: eric.popp@isisaviation.com

Activities: Consulting, remarketing & acquisition

Contact: Eric S M Popp

Israel Aerospace Industries

Address: 10 Jasmine St Shoham Israel

Tel: +972-52-8906973

Web: www.iai.co.il

Email: jyosha@iai.co.il

Activities: Aerospace

Contact: Jacob Yosha

ITAU BBA

Address: Av Brigadeiro Faria Lima 3500 - Sao Paulo, Brazil

Tel: +5511 3073-3493

Fax: +5511 3073-3000

Web: www.itau.com.br/itaubba-en/

Email: renato.salomone@itaubba.com

Activities: Investment Banking, Equity Research

Contact: Renato Salomone

JetLaw

Address: 21628 Midland Drive, Shawnee, KS USA 66218

Tel: 913-338-1700

Fax: 913-338-1755

Web: www.jetlaw.com

Email: mwade@jetlaw.com

Activities: Representing owners and operating in financing business aircraft

Contact: Michelle Wade

Jetproparts

Address: 3 N. 47Th Ave., Suite 102, Phoenix, Az 85043, USA

Tel: 6023171223

Web: www.jetproparts.com

Email: kyle@jetproparts.com

Activities: Aircraft Parts And Engine Trading

Contact: Kyle Wine

Jetstream Aviation Capital

Address: 2601 S. Bayshore Dr., Suite 1130 Miami, FL 33133, USA

Web: www.JetstreamAvCap.com

Contacts:

Konrad Tree
Tel: 305-447-1920 x103
Email: ktree@JetstreamAvCap.com

Arthur Kushner
Tel: 305-447-1920 x106
Email: amkushner@JetstreamAvCap.com

JLPW

Contact: Mr Jeff Leong

Address: B-11-8, Level 11, Megan Avenue II, Jalan Yap Kwan Seng, 50450 Kuala Lumpur, Malaysia

Tel: (+603) - 22033388

Fax: (+603) - 22033399

Web: www.jlpw.com.my

Email: jeff.leong@jlpw.com.my

Activities: Legal services in various areas of law including Capital Markets, Corporate Finance, Mergers & Acquisitions, Dispute Resolution, Real Estate and Corporate Banking.

JM Donnelly & Associates

Address: The Office, 14a Convent Road, Dalkey, County Dublin

Tel: + 353 85 7075048

Web: www.jmdonnelly.eu

Activities: Aircraft financing, acquisition and leasing, Airline Contract Law, Registration of Aircraft and Ancillary Corporate Services

Contacts:

Joan Donnelly
Email: jmd@jmdonnelly.eu

Thomas Daly
Email: tjd@jmdonnelly.eu

Jordan Design Ltd

Address: 50 Eastcastle Street, London W1W 8EA, UK

Tel: +44 20 7636 4000

Web: www.jordandesign.co.uk

Email: ben@jordandesign.co.uk

Activities: Premium lounge design, luxury retail design

Contact: Ben Jordan

K&L Gates LLP

Address: 31st Floor Tornado Tower West Bay Doha Qatar

Fax: +974 4424 6101

Web: www.klgates.com

Activities: Aviation Law

Contacts:

Lana Yaghi

Tel: +974 4424 6129
Email: lana.yaghi@klgates.com

Pawel Chudzicki
Tel: +974 4424 6108
Email: pawel.chudzicki@klgates.com

Kaye Scholer LLP

Address: Bockenheimer Landstr. 25, D-60325 Frankfurt am Main, Germany.

Tel: +49 (69) 254940

Fax: +49 (69) 25494 444

Web: www.kayescholer.com

Activities: Legal representation of debt, equity and airline participants in all aspects of European and cross-border commercial, cargo and private jet aircraft matters, including leasing, financing, securitisation, structured finance, bankruptcy/restructuring, private equity fund formation/investment and tax structuring.

Contact: Ingrid Kalisch, Partner

Kaye Scholer LLP

Address: Level 33, CityPoint, 1 Ropemaker Street, London, EC2Y 9UE, UK

Tel: +44 (20) 7105 0500

Fax: +44 (20) 7105 0505

Web: www.kayescholer.com

Activities: Legal representation of debt, equity and airline participants in all aspects of European and cross-border commercial, cargo and private jet aircraft matters, including leasing, financing, securitisation, structured finance, bankruptcy/restructuring, private equity fund formation/investment and tax structuring.

Contacts:

Philip Perrotta, Partner
Sidanth Rajagopal, Partner

Address: 3 First National Plaza, Suite 4100, 70 West Madison Street, Chicago, IL 60602-4231, US.

Tel: +1 (312) 583 2300

Fax: +1 (312) 583 2360

Contacts:

William J. Fellerhoff, Partner
Daniel J. Hartnett, Partner

Address: The McPherson Building, 901 Fifteenth Street NW, Washington DC 20005-2327, US.

Tel: +1 (202) 682 3500

Fax: +1 (202) 682 3580

Address: 250 West 55th Street, New York, NY 10019, US

Tel: +1 (212) 836 8000

Fax: +1 (212) 836 8689

Contacts:

Michael C. Mulitz, Partner
Henry G. Morriello

Kennedys Law LLP

Address: 25 Fenchurch Avenue, London UK

Tel: 0207 667 9667

Fax: 0207 667 9777

Web: www.kennedyslaw.com

Email: adosh.chatrath@kennedyslaw.com

King & Wood Mallesons

Address: Level 60, Governor Phillip Tower, 1 Farrer Place, Sydney, NSW, 2000, Australia

Tel: 61 2 9296 2098

Web: www.kwm.com

Email: john.canning@au.kwm.com

Activities: Banking & Finance: Asset Finance & Leasing, Property Finance, Corporate Finance and Asset Finance.

Contact: John Canning

KPMG

Address: KPMG, 1 Harbourmaster Place, IFSC, Dublin 1, D01 F6F5, Ireland

Web: www.kpmg.ie/aviation

Activities: Based in Ireland, KPMG has been the leading adviser to the international leasing industry for over 30 years. We are globally recognised as the Aviation Finance and Leasing Centre of Excellence with an incomparable scale and depth of experience within the sector. We provide a range of audit, tax and advisory services and can assist across a range of issues. No matter what stage your company is at, we have the expertise to help you.

Contacts:

Tom Woods, Head of Aviation Finance KPMG in Ireland
Tel: +353 1 410 2589
Email: tom.woods@kpmg.ie

Killian Croke, Audit Partner KPMG in Ireland
Tel: +353 1 410 2446
Email: killian.croke@kpmg.ie

Declan Keane, Advisory Partner KPMG in Ireland
Tel: +353 1 410 1335
Email: declan.keane@kpmg.ie

Address: KPMG, 8/F Prince's Building, 10 Chater Road, Central Hong Kong, SAR

Tel: +852 2143 8790

Fax: +852 2845 2588

Web: www.kpmg.com/cn

Email: john.rimpany@kpmg.com

Activities: Tax

Contact: John Timpany

Kun CAO

Address: 12/F, Galaxy Center, Fuhua Road, Futian District, Shenzhen, China 518048

Tel: +86 18038180288

Email: 39693535@qq.com

Activities: Trust

Kurdi & Zubi

Address: P.O. Box 940648 Amman 11194 Jordan

Tel: +962 5603 903

Fax: +962 5603 906

Web: www.kurdizubi.com

Email: info@kurdizubi.com

Activities: Law Firm

KV Aviation

Address: KV Aviation Singapore Pte Ltd, Level 42, Six Battery Road, Singapore, 049909

Tel: +65 6232 2740

Web: www.KVAviation.com

Email: chris.barrett@KVAviation.com

Activities: Aircraft Lessor

Contact: Chris Barrett

KV Aviation

Address: KV Aviation Pty Limited, Level 32, Australia Square, 264 George Street, Sydney, NSW, Australia

Tel: +612 9247 2147

Fax: +612 9251 9501

Web: www.KVAviation.com

Email: david.veal@KVAviation.com

Activities: Aircraft Lessor

Contact: David Veal

Address: Suite 802, 8th Floor, 125 Old Broad Street, London, EC2N 1AR, UK

Tel: +44 203 192 5614

Fax: +44 203 192 5611

Web: www.KVAviation.com

Email: martin.webb@KVAviation.com

Contact: Martin Webb

Linklaters

Address: Linklaters LLP, Allegro Building, Avenue John F. Kennedy 35, L-1855 Luxembourg

Tel: 35226088324

Fax: 35226088888

Web: www.linklaters.com

Email: bart.vermaat@linklaters.com

Activities: Aircraft finance, Aviation Corporate and Regulatory

Contact: Bart Vermaat

Linklaters LLP

Address: Linklaters LLP, One Silk Street, London EC2Y 8HQ, UK

Tel: +44 207 456 4429

Fax: +44 207 456 2222

Web: www.linklaters.com

Email: olga.petrovic@linklaters.com

Activities: Aircraft finance, Aviation Corporate and Regulatory

Contact: Olga Petrovic

Luxaviation Group

Address: 4a, rue Albert Borschette, Luxembourg

Tel: +352 42 52 52 1

Web: www.luxaviation.com

Email: info@luxaviation.com

Activities: Business Aviation

Maples and Calder (British Virgin Islands)

Address: Sea Meadow House, PO Box 173, Road Town, Tortola, VG1110, British Virgin Islands

Tel: +1 284 852 3000

Fax: +1 284 852 3097

Email: bviinfo@maplesandcalder.com

Activities: Provides Cayman Islands, Irish and British Virgin Islands legal advice on aircraft financing and leasing transactions across its global network.

Contact: Richard May, Partner
Tel: +1 284 852 3027
Email: richard.may@maplesandcalder.com

Maples Fiduciary (Cayman Islands)

Address: PO Box 1093, Boundary Hall, Cricket Square, Grand Cayman, KY1-1102, Cayman Islands.

Tel: +1 (345) 945 7099

Fax: +1 (345) 945 7100

Email: cayman@maplesfs.com

Website: www.maplesfiduciary.com

Activities: Provides directors, corporate formation, administration, accounting, company secretarial, management, trustee, registrar and escrow services as well as off-balance sheet ownership structures for special purpose entities and securitisation vehicles.

Contacts:

Guy Major, Global Head of Fiduciary
Tel: +1 (345) 814 5818;
Email: guy.major@maplesfs.com

Phillip Hinds, Senior Vice President
Tel: +1 (345) 814 5807
Email: phillip.hinds@maplesfs.com

Maples and Calder (Cayman Islands)

Address: Ugland House, PO Box 309, South Church Street, Grand Cayman KY1-1104, Cayman Islands

Tel: +1 345 949 8066

Fax: +1 345 949 8080

Email: info@maplesandcalder.com

Activities: Provides Cayman Islands, Irish and British Virgin Islands legal advice on aircraft financing and leasing transactions across its global network.

Contacts:

Dale Crowley, Partner
Tel: +1 345 814 5535
Email: dale.crowley@maplesandcalder.com

Wanda Ebanks, Partner
Tel: +1 345 814 5449
Email: wanda.ebanks@maplesandcalder.com

Maples Fiduciary (Hong Kong)

Address: 5301 53rd Floor, The Center, 99 Queen's Road Central, Hong Kong.

Tel: +852 3655 9000

Fax: +852 3655 9000

Email: hongkong@maplesfs.com

Website: www.maplesfiduciary.com.

Activities: Provides directors, incorporation, administration, accounting, company secretarial and registrar services to Hong Kong and Cayman Islands companies where an Asian time zone presence is needed. Provides trustee and trust administration services to Hong Kong, Cayman Islands and British Virgin Islands trusts.

Contact: Hugh Thompson, Global Head of Fiduciary
Tel: +65 6436 6911
Email: hugh.thompson@maplesfs.com.

Maples and Calder (Hong Kong)

Address: 53rd Floor, The Center, 99 Queen's Road Central, Hong Kong

Tel: +852 2522 9333

Fax: +852 2537 2955

Email: hkinfo@maplesandcalder.com

Activities: Provides Cayman Islands, Irish and British Virgin Islands legal advice on aircraft financing and leasing transactions across its global network.

Contacts:

Mark Western, Partner
Tel: +852 3690 7407
Email: mark.western@maplesandcalder.com

Stacey Overholt, Partner
Tel: +852 3690 7441
Email: stacey.overholt@maplesandcalder.com

Maples Fiduciary (Ireland)

Address: Beaux Lane House, Mercer Street Lower, Dublin 2, Ireland.

Tel: +353 (1) 697 3200

Fax: +353 (1) 697 3300

Email: dublin@maplesfs.com

Website: www.maplesfiduciary.com

Activities: Provides directors, corporate formation, administration, managing agent, accounting, company secretarial, share trustee and paying agent services to structured finance vehicles and Irish investment fund structures.

Contacts:

Stephen O'Donnell, Regional Head of Fiduciary, Europe
Tel: +353 (1) 697 3244
Email: stephen.odonnell@maplesfs.com

Julian Dunphy, Senior Vice President
Tel: +353 (1) 697 3231
Email: julian.dunphy@maplesfs.com

Maples and Calder (Ireland)

Address: 75 St. Stephen's Green, Dublin 2, Ireland

Tel: +353 1 619 2000

Fax: +353 1 619 2001

Email: dublininfo@maplesandcalder.com

Activities: Provides Cayman Islands, Irish and British Virgin Islands legal advice on aircraft financing and leasing transactions across its global network.

Contacts:

Nollaig Murphy, Partner
Tel: +353 1 619 2079
Email: nollaig.murphy@maplesandcalder.com

Donna Ager, Partner
Tel: +353 1 619 2084
Email: donna.ager@maplesandcalder.com

MaplesFS (Luxembourg)

Address: 6D, route de Trèves, Senningerberg, L-2633, Luxembourg.

Tel: +352 26 68 621

Fax: +352 26 68 6220

Email: luxembourg@maplesfs.com

Website: www.maplesfs.com.

Activities: Provides management and domiciliation agent services to Luxembourg structured finance companies, fiduciary services to Luxembourg investment fund structures and fund administration services to European domiciled investment funds. Services include the provision of directors, corporate formation, registered office, company secretarial, calculation agent, transfer agent and administration services as well as financial statement preparation.

Contact: Tom Davies, Regional Head of Fiduciary, Europe
Tel: +352 26 68 6233
Email: tom.davies@maplesfs.com

Maples Fiduciary (The Netherlands)

Address: World Trade Center Tower D, 12th Floor, Strawinskylaan, 1157 1077 XX, Amsterdam, The Netherlands.

Tel: +31 20 808 1081

Fax: +31 20 808 0415

Email: netherlands@maplesfs.com

Website: www.maplesfiduciary.com.

Activities: Provides directors, corporate formation, administration, accounting, company secretarial and registered office services to asset-backed special purpose vehicles and Netherlands holding companies.

Contact: Senior Vice President: Jan Hendrik Siemssen
Tel: +31 20 808 1081
Email: janhendrik.siemssen@maplesfs.com.

Maples Fiduciary (Singapore)

Address: 1 Raffle Place, #32-02A, One Raffles Place, Singapore, 048616.

Tel: +65 6436 6900

Fax: +65 6532 7422

Email: singapore@maplesfs.com

Website: www.maplesfiduciary.com

Activities: Provides directors, incorporation, administration, accounting, company secretarial and registered office services to Singapore and Cayman Islands companies where an Asian time zone presence is needed.

Contact: Hugh Thompson, Global Head of Fiduciary

Tel: +65 6436 6911

Email: hugh.thompson@maplesfs.com.

Maples and Calder (Singapore)

Address: 1 Raffles Place, #32-02A One Raffles Place, 048616, Singapore

Tel: +65 6922 8400

Fax: +65 6222 2236

Email: sginfo@maplesandcalder.com

Activities: Provides Cayman Islands, Irish and British Virgin Islands legal advice on aircraft financing and leasing transactions across its global network.

Contacts:

Partner: Michael Gagie
Tel: +65 6922 8402
Email: michael.gagie@maplesandcalder.com

Jess Stock, Of Counsel
Tel: +65 6922 8401
Email: jess.stock@maplesandcalder.com

Maples Fiduciary (UK)

Address: 11th Floor, 200 Aldersgate Street, London, EC1A 4HD.

Tel: +44 20 7466 1600

Fax: +44 20 7466 1700

Email: london@maplesfs.com

Website: www.maplesfiduciary.com

Activities: Provides directors, corporate formation, administration, accounting, company secretarial, share trustee and process agent services to UK companies and LLPs.

Contact: Sam Ellis, Senior Vice President

Tel: +44 20 7466 1645

Email: sam.ellis@maplesfs.com.

Maples and Calder (UK)

Address: 11th Floor, 200 Aldersgate Street, London, EC1A 4HD.

Tel: +44 20 7466 1600

Fax: +44 20 7466 1700

Email: ukinfo@maplesandcalder.com

Activities: Provides Cayman Islands, Irish and British Virgin Islands legal advice on aircraft financing and leasing transactions across its global network.

Contacts:

Jonathan Caulton, Partner
Tel: +44 20 7466 1612
Email: jonathan.caulton@maplesandcalder.com

Partner: Matthew Gilbert
Tel: +44 20 7466 1608
Email: matthew.gilbert@maplesandcalder.com

Maples Fiduciary (United Arab Emirates)

Address: Liberty House, Office 616, 6th Floor, Dubai International Financial Centre, Dubai, PO Box 506734, United Arab Emirates.

Tel: +971 4 511 4200

Fax: +971 4 511 4100

Email: dubai@maplesfs.com

Website: www.maplesfiduciary.com.

Activities: Provides directors, corporate formation, administration, accounting, company secretarial and registered office services to DIFC entities and Cayman Islands entities where a Middle Eastern time zone presence is needed.

Contact: Andrew Millar, Regional Head of Fiduciary, Middle East
Tel: +971 4 511 4202
Email: andrew.millar@maplesfs.com.

Maples and Calder (United Arab Emirates)

Address: 5th Floor, The Exchange Building, Dubai International Financial Centre, PO Box 119980, Dubai, United Arab Emirates

Tel: +971 4 360 4070

Fax: +971 4 360 4080

Email: dubaiinfo@maplesandcalder.com

Activities: Provides Cayman Islands, Irish and British Virgin Islands legal advice on aircraft financing and leasing transactions across its global network.

Contact: Manuela Belmontes, Partner
Tel: +971 4 360 4074
Email: manuela.belmontes@maplesandcalder.com

Maples Fiduciary (USA)

Address: Suite 302, 4001 Kennet Pike, Wilmington, Delaware 19807, US. Tel: +1 (302) 338 9130

Fax: +1 (302) 731 1612

Email: delaware@maplesfs.com

Website: www.maplesfiduciary.com

Activities: Provides directors, officers, managers, corporate formation, co-issuer, administration, accounting, company secretarial and registered agency services to investment funds and asset finance vehicles.

Contact: Edward Truitt, Regional Head of Fiduciary, Delaware
Tel: +1 (302) 338 9129
Email: edward.truitt@maplesfs.com

M.K. Aviation, S.A.

Address: Edificio Vallarnio, 10th Floor, Calle Elvira Mendez & Calle 52, Panama City, Repbulic of Panama

Tel: +(507) 269-5211

Fax: +(507) 269-1473

Web: www.mkaviation.com

Email: mk@mkaviation.com

Activities: Buying, selling, and leasing or airliners and spare engines.

Contacts:

Ariel Kraselnick, Vice President Marketing & Sales
Raymond Kraselnick, Vice President Finance
Israel Khoshen, Vice President Operations
Guillermo Pastor, Vice President Technical
Ran Ackerman, Vice President Marketing & Sales – Head of EMEA and Asia

Macquarie

Address: 50 Martin Place Sydney NSW 2000, Australia

Web: www.macquarie.com

Email: Peter.farthing@macquarie.com

Activities: Bespoke financings, investing and capital raisings

Macquarie Capital

Address: 125 West 55th Street, New York, NY 10019, USA

Tel: +1 212 231 0455

Web: www.macquarie.com

Email: eric.hanson@macquarie.com

Contact: Eric Hanson, Senior Managing Director

Magi Partners

Address: 1 Royal Exchange Avenue, London, EC3V 3LT, UK

Tel: +44 20 7464 4120

Web: www.magi-partners.com

Activities: Aircraft Finance and Leasing

Contacts:

Sean Cleghorn
Email: sean.cleghorn@magi-partners.com

John Sharman
Email: john.sharman@magi-partners.com

Mahoney Liotta

Address: The Landmark, 7th Floor, Chinggis Avenue 13, Ulaanbaatar, Mongolia

Tel: 976.11.325.344

Fax: 976.11.325.358

Web: www.mlmongolia.com

Email: daniel.mahoney@mlmongolia.com

Activities: Law

Contact: Daniel Mahoney

Mason Hayes & Curran

Address: South Bank House Barrow Street Dublin 4, Ireland

Fax: +353 1 614 5001

Web: www.mhc.ie/people/christine-o-donovan

Activities: Aviation, Asset Financing and Leasing, Financial Services, Banking Law

Contacts:

Christine O'Donovan, Partner & Head of Financial Services
Tel: +353 1 614 5082
Email: codonovan@mhc.ie

Daniel Kiely, Partner
Tel: +353 1 614 5249,
Email: dkiely@mhc.ie

Mayer Brown JSM

Address: 16th - 19th Floors Prince's Building, 10 Chater Road Central, Hong Kong, SAR

Tel: +852 2843 2368

Fax: +852 2103 5103

Web: www.mayerbrownjsm.com

Email: richard.stock@mayerbrownjsm.com

Contact: Richard Stock, Partner

McLarens Aviation

Address: McLarens Aviation, World Business Centre 1, Newall Road, London Heathrow, TW6 2AS, UK

Tel: 020 8564 3701

Fax: 020 8897 0300

Web: www.mclarensaviation.com

Email: asset.aviation@mclarens.com

Activities: Asset Management, Risk Management, Appraisal, Claims Management, Aircraft Inspections, Consultancy

Contact: Ben Dean

Meer Meer & Meer

Address: 19F L.V. Locsin Building, 6752 Ayala Avenue, Makati City, Philippines

Tel: +632 8104991 to 94

Web: www.meerlaw.ph

Email: info@meerlaw.ph

Activities: Aviation, Investments, Financing, Corporate Structuring, Tax

Contact: Rafael Antonio P. Meer

Email: Rafael.Meer@Meerlaw.ph

MFS Aircraft

Address: 3040 Dupont Ave. S. Suite 204, Minneapolis, MN 55408, USA

Tel: +01-612-822-3580

Web: www.mfsaircraft.com

Email: Gerry@mfsaircraft.com

Activities: Aircraft Financing, Leasing and Sales

Contact: Gerry Jackson

Milbank, Tweed, Hadley & McCloy

Address: 10 Gresham Street, London, EC2V 7JD, UK

Web: www.milbank.com

Activities: Provider of legal services to the aviation industry worldwide, assisting clients on the largest and most complex transactions in the sector.

Contacts:

James Cameron, Partner
Tel: +44 (0)207 615 3031
Email: jcameron@milbank.com

Nick Swinburne, Partner
Tel: +44 (0)207 615 3278
Email: nswinburne@milbank.com

Minsheng Financial Leasing

Address: No. 8 Building, Beijing Friendship Hotel, 1 South Zhongguancun Street, Haidian District, Beijing 100873, China

Tel: +86-10-5608-7506,

Fax: +86 (0) 10 6848 7808

Web: www.msfl.com.cn/en/

Email: chenfei@msfl.com.cn

Activities: Providing operating and finance lease to both commercial and business jet.

Contact: Chen Fei, Vp of Msfl Aviation

Moon Jet Group

Address: Floor 2, 1 Trinity Gardens, Board Chare Quayside, Newcaslte, NE1 2HF, UK

Tel: 7534165816

Web: www.moonjetgroup.com

Email: jmoon@moonjetgroup.com

Activities: Aircraft sales, Aircraft remarketing

Morris James Delaware

Address: 500 Delaware Avenue, 15th Floor, USA

Tel: 302 888-6917

Fax: 302 504-3947

Web: www.morrisjames.com

Email: mledyard@morrisjames.com

Activities: Structured Finance; Delaware Corprations, Llcs, Lps And Statutory Trusts

Contact: Michael M. Ledyard

Mourant Ozannes

Address: 1002-1006, 10/F Gloucester Tower, Landmark, 15 Queen's Road Central, Hong Kong, SAR

Fax: +852 3995 5799

Web: www.mourantozannes.com

Activities: Banking and Finance - Aircraft & Shipping Finance, Structure Finance and Asset Finance

Contacts:

Danielle Roman
Tel: +852 3995 5705
Email: Danielle.Roman@mourantozannes.com

Simon Lawrenson
Tel: +852 3995 5707
Email: Simon.Lawrenson@mourantozannes.com

MTU Maintenance Lease Services B.V.

Address: World Trade Centre, Office Tower B, 16th Floor, Strawinskylaan 1639, 1077XX Amsterdam, Netherlands

Tel: +31 208 052 5900

Web: www.mtu-maintenance.com

Email: Martin.Friis-Petersen@mtu-lease-services.com

Activities: MTU's two joint ventures with Japanese Sumitomo Corporation are specializing in engine leasing. While MTU Maintenance Lease Services focuses on short to medium term leases, Sumisho Aero Engines offers longterm solutions. The service portfolio is rounded off by asset and material management.

Contact: Martin Friis-Petersen, Managing Director

Mundays LLP

Address: Mundays LLP, Cedar House, 78 Portsmouth Road, Cobham, Surrey KT11 1AN, UK

Tel: 01932 590 500

Fax: 01932 590 22

Web: www.mundays.co.uk

Email: David.irving@mundays.co.uk

Activities: All contractual matters relating to aircraft and engine purchase and leasing, both contentious and non-contentious

Contact: David Irving

Mvegapenichet

Address: C/.Alcalá 115, 28009 Madrid, Spain

Tel: 34914315500

Fax: 34914315938

Web: www.mvegapenichet.com

Activities: Finance, regulatory, taxes, litigation, M&A, etc.

Contacts:

Luis Vega-Penichet
Email: lvp@mvegapenichet.com

Enrique Vega-Penichet
Email: evp@mvegapenichet.com

Nagashima Ohno & Tsunematsu

Address: JP Tower, 2-7-2 Marunouchi, Chiyoda-ku, Tokyo 100-7036, Japan

Tel: +81-3-6889-7000

Fax: +81-3-6889-8000

Web: www.noandt.com

Activities: Legal and tax advice in connection with Japanese leveraged leases and operating leases.

Contacts:

Ryo Okubo, Partner in charge of PR

Akihisa Shiozaki

Shinichi Araki

Natixis

Address: 50 Raffles Place, #41-01, Singapore Land Tower, Singapore 048623

Tel: +65 6228 5107

Web: cib.natixis.com/structuredfinancing/

Email: jean.chedeville@ap.natixis.com

Contact: Chedeville Jean, Director, Aviation Group Asia Pacific

Address: 333 Clay Street, Suite 3900, Houston TX 77002, USA

Tel: 713-751-1652

Web: www.natixis.com

Email: lucy.ortiz@us.natixis.com

Activities: Global Markets Commodities, Finanical Derivatives

Contact: Lucy Ortiz-Kildow

NCR National Corporate Research (HK) Ltd.

Address: 12/F., Infinitus Plaza, 199 Des Veoux Road Central, Hong Kong, SAR

Tel: 852 3796 3511

Fax: 852 3796 3000

Web: www.nationalcorp.com

Email: info@nationalcorp.com.hk

Activities: Non-legal services

Nedbank

Address: 135 Rivonia Rd, Sandown, 2196, South Africa

Tel: +27 11 295 8313

Fax: +27 11 294 8313

Web: www.nedbank.co.za/content/nedbank/desktop/gt/en/corporates/financing/aircraft-finance.html

Email: jamesge@nedbank.co.za

Activities: Aircraft Finance

Contact: James Geldenhuys

Nordic Aviation Capital

Address: Fifth Floor Bedford Place, Henry Street, Limerick, Ireland

Tel: 35361432426 Fax: 35361432420

Web: www.nac.dk

Email: efe@nac.dk

Activities: Aircraft Leasing

Contact: Eva Ferguson

North Cape Pte Ltd

Address: 67-B Boat Quay, Singapore 049855

Tel: +65 9818 9091

Web: www.northcapecapital.com

Email: l.pupkin@ncape.sg

Activities: Structured Finance

Contact: Larry Pupkin

Norton White

Address: Level 4, 66 Hunter Street, Sydney NSW 2000 Australia

Tel: 02 9230 9400

Fax: 02 9230 9499

Web: www.nortonwhite.com

Email: mark.mackrell@nortonwhite.com

Activities: Transport Law

Contact: Mark Mackrell

OAG

Address: 801 Warrenville Rd Ste 555, USA

Tel: 630 515 5300

Web: www.oag.com

Email: anna.henley@oag.com

Activities: Aviation Data

Contact: Anna Henley

Odgers Berndtson

Address: 20 Cannon Street, London EC4M 6XD, UK

Tel: 07764 344833 / 0141 225 6333

Web: www.odgersberndtson.com

Email: susan.thompson@odgersberndtson.com

Activities: Executive Search

Contact: Susan Thompson, Partner & Head of Aviation Practice

Orient Thai Airlines

Address: 222 Room 4322B Donmuang, Bangkok, Thailand

Tel: 662294260

Fax: 662294260

Web: www.flyorientthai.com

Email: atsadawut@orient-thai.com

Parra Rodríguez Abogados S.A.S

Address: Carrera 9 No. 74-08 Of 504, Bogotá, DC, 110221, Colombia

Tel: 571-3764200

Fax: +571-3761707

Web: www.prslaws.com

Email: bernardo.rodriguez@prslaws.com

Activities: Legal- Aircraft finance

Contact: Bernardo Rodríguez Ossa

Philippine Airlines

Address: PNB Financial Center Diosdado Macapagal Avenue Pasay City Philippines

Tel: +63 2 5561903

Web: www.philippineairlines.com

Email: ian_reid@pal.com.ph

Activities: Airline Industry

Contact: John Fraser Reid

Phoenix Aviation

Address: Phoenix Aviation Ltd. Po Box 49493-00100, Nairobi, Kenya

Tel: +254204945540/541

Fax: 254206004049

Web: www.phoenixaviation.co.ke

Email: md@phoenixaviation.co.ke

Activities: Worldwide Charter & Air Ambulance Fixed & Rotary Wing

Contact: Emma Finlay

Pinheiro Neto Advogados

Contact: Felipe Bonsenso Veneziano

Address: Rua Hungria, 1100, 01455-906 - São Paulo - Brazil

Tel: (55 11) 3247 6089

Fax: (55 11) 3247 8600

Web: www.pinheironeto.com.br/pages/curriculo-profissional.aspx?nID=188&Nome=Felipe%20Bonsenso%20Veneziano

Email: fveneziano@pn.com.br

Activities: Aviation, Aviation Finance, Aircraft Leasing, Aviation Regulatory, Transport

Plesner

Address: Plesner, Amerika Plads 37, DK-2100 Copenhagen

Tel: 4533121133

Web: www.plesner.com

Email: jpe@plesner.com

Activities: bank and finance including aircraft finance and other types of asset based financing

Contact: Jørgen Permin

Power Aviation Services Limited

Address: Grange House, Crecora, Co. Limerick, V94 Y957, Ireland

Mob: +353-87-2568122

Tel: +353-61-320200

Fax: +353-61-320201

Web: www.poweraviation.ie

Email: pasl@iol.ie

Activities: Power Aviation is a boutique aircraft trading and advisory company founded in 1993.The company provides specialised aircraft trading and brokering services to airlines, investors and financial institutions worldwide. The company primarily specialises in remarketing (selling and leasing) and sourcing new & used aircraft for its customers but also provides aviation consulting services to regional airlines globally.

Contact: Gerry Power, Managing Director

Pratt & Whitney Aircraft Engine Maitnenance Company limited

Address: No. 8 Block 1, 8228 Beiqing Road, Qingpu District Shanghai, 201707, China

Tel: 862131833057

Fax: 862131833088

Web: www.pw.utc.com

Email: michelle.guan@pwap.utc.com

Activities: Aircraft engine MRO

Contact: Michelle Guan

Private Export Funding Corporation

Address: 280 Park Avenue, New York, N.Y. 10017, USA

Tel: 212-916-0332

Fax: 646-432-5865

Web: www.pefco.com

Email: g.hough@pefco.com

Activities: Finance

Contact: Gordon Hough

Probus Aviation Limited

Contact: Adrian M Lee

Address: Probus House 7 River Walk Horsham West Sussex RH12 1DU, UK

Tel: 020 8123 2787

Web: www.probusaviation.com

Email: adrian@probusaviation.com

Activities: Asset Management, Aircraft Remarketing, Consultancy, Expert Witness

Quahe Woo & Palmer LLC

Address: 180 Clemenceau Avenue,#05-03, Haw Par Centre, Singapore 239922

Tel: +65 6622 0366

Fax: +65 6534 2622

Web: www.quahewoo.com

Email: rr@quahewoo.com

Activities: Aviation lawyers undertaking transactional / regulatory/advisory and litigation matters including aircraft finance matters involving sale/purchase, finance and operating leases, other financing structures , repossession of aircraft - representing owners/ lessors / lessees

Contact: Rajaram Ramiah

Rajinder Narain & Co.

Address: Maulseri House, 7 Kapashera Estate, New Delhi - 110037, India

Tel: +91.11.41225000

Fax: +91.11.41225001

Web: www.rnclegal.com

Email: ravi.nath@rnclegal.com

Activities: Aviation Laws, Finance and Leasing, Cross Border, as also Regulatory and Enforcement.

Contact: Ravi NATH

Regiolease

Address: 13 Rue du Pont des Halles -BATA- 94150 Rungis-France

Tel: +33 1 8045 0045

Fax: +33 4 7469 5381

Web: www.regiolease.com

Email: contact@regiolease.com

Activities: Airworthiness Management, Aircraft Valuation, Delivery/re-delivery, CAMO, Aircraft Marketing

Contact: Le Minh Loc Laurent

Robert Wray PLLC

Address: 1150 Connecticut Avenue, NW, Washington, DC 20036, USA

Tel: 202.349.5000

Fax: 202.293.7877

Web: www.robertwraypllc.com

Email: info@robertwraypllc.com

Activities: The firm has extensive experience in the financing of aircraft, engines and aviation services for commercial airlines, operating lessors, financial leasing companies, business jet operators and helicopter taxi and service providers. These transactions have utilized a variety of funding mechanisms, such as US Ex-Im Bank guaranteed or direct loans, joint export credit agency financing, pre-delivery payments financing and capital markets offerings.

Contacts:

Geraldine Mataka

Kate Kirkpatrick
Tel: 202.349.5018
Fax: 202.293.7877
Web: www.robertwraypllc.com
Email: kkirkpatrick@robertwraypllc.com

Rolls-Royce & Partners Finance

Address: 62 Buckingham Gate, London, SW1E 6AT, UK

Web: www.rrpf-leasing.com

Activities: Rolls-Royce & Partners Finance was established as a separate business in 1989 to assist customers purchasing spare Rolls-Royce aero engines. We provide customers with tailored financial solutions such as long term operating leases. Today, we manage the largest global portfolio of Rolls-Royce and IAE V2500-A5 engines.

San Marino Aircraft Registry

Address: Via Consiglio dei Sessanta, 99 47891 Dogana - Republic of San Marino

Tel: +378 (0549) 941539

Fax: +378 (0549) 970525

Web: www.smar.aero

Email: info@smar.aero

Activities: Aircraft Registration Services

Sanne Group

Address: Sanne Group, Ireland

Tel: 35319062267

Web: www.sannegroup.com

Email: conor.blake@sannegroup.com

Activities: Spv Administraton

Contact: Conor Blake

Saulsbury Hill Financial

Address: Box 22699; Denver, CO 80222, USA

Tel: 303-629-8777

Fax: 303-629-7689

Web: www.saulhill.com

Email: davidc@saulhill.com

Activities: Specialists in financing ground support equipment; United States Federal and Local Government leases, loans, receivables and contracts; as well as corporate and transport category aircraft.

Contact: David J. Clamage

Seabury Group

Address: Seabury Group, 222 South 9th Street, Suite 3250, Minneapolis, MN, USA

Tel: +1 612 638 2633

Fax: +1 612 399 0052

Web: www.seaburygroup.com

Email: pthibeau@seaburygroup.com

Activities: Aviation Consulting, Investment Banking, Asset Management, Software & Data

Contact: Paul Thibeau

Seefinaviation

Address: Seefin Hse, Listowel, Kerry, Ireland

Tel: 353868151852

Web: www.SeefinAviation.com

Email: James@SeefinAviation.com

Activities: Aircraft re-marketing

Contact: James O'Shea

Seraph

Address: 1st Floor Embassy House, Herbert Park Lane, Ballsbridge, Dublin 4, Ireland

Tel: 863862988

Web: www.seraph.aero

Activities: Aircraft Leasing

Contacts:

Patrick Kenny
Email: p.kenny@seraph.aero

Catherine Powe
Email: c.power@seraph.aero

Seraph Aviation Management Limited

Address: 1st Floor Embassy House, Herbert Park Lane, Ballsbridge, Dublin 4, Ireland

Tel: 01 6077000

Web: www.seraph.aero

Contacts:

Eugene O'Reilly, Chief Executive Officer
Email: eoreilly@seraph.aero

Edward Coughlan, Chief Commercial Officer
Email: ecoughlan@seraph.aero

Stephen Coyle, Chief Technical Officer
Email: scoyle@seraph.aero

Catherine Power
Email: cpower@seraph.aero

Edward Hansom
Email: ehansom@seraph.aero
Patrick Kenny
Email: pkenny@seraph.aero

SES

Address: Shannon Engine Support LTD, Aviation House, Shannon. Co. Clare, Ireland

Tel: 35361706972

Web: www.ses.ie

Email: susan.keating@ses.ie

Activities: Leading CFM56 and LEAP Engine Lessor, offering a range of spare engine solutions to operators and MROs around the world.

Contact: Susan Keating, Head of Sales & Marketing

Shanghai Pudong Development Bank Financial Leasing

Address: No.2865, Longteng Avenue, Xuhui District, Shanghai,China

Tel: +86 21 33566685

Fax: +86 21 33566676

Web: www.spdbfl.com.cn/sy

Email: zhangjt@spdbfl.com.cn

Activities: China and Southeast Asia

Contact: Kanter Zhang

Shannon Engine Support

Address: Shannon Engine Support LTD, Aviation House, Shannon. Co. Clare, Ireland

Tel: 35361706214

Web: www.ses.ie

Email: julie.dickerson@ses.ie

Activities: Leading CFM56 and LEAP Engine Lessor, offering a range of spare engine solutions to operators and MROs around the world.

Contact: Julie Dickerson, MD

Shearwater Aero Capital

Contact: Chris Miller

Address: 5400 Laurel Springs Parkway, Unit 408, USA

Tel: 312 480-8132

Web: www.shearwateraero.com

Email: cmiller@shearwateraero.com

Activities: Business Aviation Finance

Sidley

Address: Sidley Austin LLP, 7878 Seventh Avenue, New York, NY 10019, USA

Tel: +1-212-839-7385

Fax: +1-212-839-5599

Web: www.sidley.com

Email: rkelleher@sidley.com

Activities: Aircraft Finance and Leasing

Contact: Rory Kelleher

Silverairways

Address: 1100 Lee Wagener Boulevard Fort Lauderdale, FL 33315, USA

Web: www.silverairways.com

Email: jason.bewley@silverairways.com

Contact: Jason Bewley

Silveroaklegal

Address: Cayman Islands

Tel: 17867778546

Web: www.silveroaklegal.com

Email: ojones@silveroaklegal.com

Activities: Aircraft Finance - Fixed Fees and Disbursements

Contact: Owen Jones

Silveroaklegal

Contact: Sally Cox

Address: British Virgin Islands

Tel: 12843408887

Web: www.silveroaklegal.com

Email: scox@silveroaklegal.com

Activities: Aircraft Finance - Fixed Fees and Disbursements

SKY consultants

Address: Cairo International Airport, Heliopolis, Egypt

Tel: 201001414671

Email: ceo@sky-consultants.com

Activities: Aviation Consultants

Contact: Mahmoud Osama

Skytech Aviation Services Limited

Address: Carriage House, Hurst Farm, Winchfield, Hampshire, RG27 8SL, UK

Tel: 01252 844775

Fax: 01252 845130

Web: www.skytech-aic.com

Email: admin@skytech-aic.com

Activities: Aircraft finance, leasing, marketing and consulting

Slaughter and May

Address: One Bunhill Row, London EC1Y 8YY, UK

Web: www.slaughterandmay.com

Activities: Financing

Contacts:

Andrew Johnson
Tel: +44 (0)20 7090 3024
Email: andrew.johnson@slaughterandmay.com

Andrew Williams
Tel: +44 (0)20 7090 4360
Email: andrew.williams@slaughterandmay.com

Solenta Aviation

Tel: +27 11 707 4000

Web: www.solenta.com

Email: michael.adams@solenta.com

Activities: Worldwide

Contact: Michael Adams

Spaulding Aviation Services LLC

Address: 17971 Tobermory Place, Leesburg, VA 20175, USA

Tel & Fax: 703-624-4213

Email: richard.spaulding@spauldingaviation.com

Activities: Commercial aircraft transaction arrangement, financing and remarketing

Contact: Richard Spaulding

SPDB Financial Leasing

Address: No.2865# Long Teng Ave,Xuhui District,Shanghai China
Tel: 0086 21 3356 6678

Fax: 0086 21 3356 6667

Web: www.spdbfl.com.cn

Email: zhuangy@spdbfl.com.cn

Activities: Aircraft Leasing, Engine Leasing,Aircraft Manangement

Contact: Jonny Zhuang Yan

Spectre Air Capital LLC

Address: 500 W 5th Street, Austin Texas 78701 USA

Tel: +1 512 551-1211

Web: www.spectre.aero

Email: kcasey@spectre.aero

Activities: Passenger and Freighter Aircraft & Engine Leasing, Sales, Finance

Spectre Cargo Solutions, LLC

Address: 500 W 5th Street, Austin Texas 78701, USA

Tel: +1 334 791 1076

Email: kcasey@spectre.aero

Contact: Kevin Casey, President

Squire Patton Boggs

Address: Ebisu prime Square Tower 16F, 1-1-39, Hiroo, Shibuya-ku, Tokyo 150-0012, Japan

Tel: +81 3 5774 1800

Fax: +81 3 5774 1818

Web: www.squirepattonboggs.com

Activities: Aviation Finance Legal

Contacts:

Hisao Hirose
Email: hisao.hirose@squirepb.com

Asuka Fujita
Email: asuka.fujita@squirepb.com

SR Technics

Address: 1560 Sawgrass Corporate Parkway, Sunrise, FL 33323, USA

Tel: +1 954 448 7986

Web: www.srtechnics.com

Email: caroline.vandedrinck@srtechnics.com

Activities: MRO

Contact: Caroline Vandedrinck

Standard & Poor's

Address: 55 Water Street, New York, NY, USA

Tel: 2124387101

Email: jing.xie@spglobal.com

Activities: Aircraft ABS Ratings

Contact: Jing Xie

Stellwagen Finance

Address: Dubai

Tel: 971521668477

Web: www.stellfin.com

Email: mbourgade@stellfin.com

Activities: Aviation finance

Contact: Marc Bourgade

Stephenson Harwood

Web: www.shlegal.com

Activities: Aviation finance team is a leading global provider of legal services to airlines, lenders and operating lessors.

Address: Office 04, Level 12, Al Fattan Currency House, Dubai International Financial Centre, P.O. Box 482017, Dubai, UAE
Tel: +971 4 407 3900
Fax: +971 4 327 6714
Email: nijoe.joseph@shlegal.com
Contact: Nijoe Joseph, Partner

Address: 18th Floor, United Centre, 95 Queensway, Hong Kong, SAR
Tel: +852 2868 0789
Fax: +852 2868 1504
Web: www.shlegal.com
Email: simon.wong@shlegal.com
Contact: Simon Wong, Partner

Address: 1 Finsbury Circus, London EC2M 7SH, UK
Tel: +44 20 7329 4422
Fax: +44 20 7329 7100
Web: www.shlegal.com
Email: richard.parsons@shlegal.com
Contact: Richard Parsons, Partner and Head of Aviation

Address: 19, place Vendôme, 75001 Paris, France
Tel: +33 1 44 15 8000
Fax: +33 1 44 15 8009
Web: www.shlegal.com
Email: edward.campbell@shlegal.com
Contact: Edward Campbell, Partner

Address: 1 Raffles Place #18-61, Tower 2, Singapore 048616
Tel: +65 6226 1600
Fax: +65 6226 1661
Web: www.shlegal.com
Email: saugata.mukherjee@shlegal.com
Contact: Saugata Mukherjee, Partner

Stifel Nicolaus Europe Ltd

Address: 60 South 6th Street, Suite 3000, Minneapolis, MN 55402, USA

Tel: 6124555944

Email: painel@stifel.com

Activities: Aviation Finance

Contact: Lindsay L. Paine- Stifel

Stratos

Address: Le Forum Cats, 28 Blvd Princesse Charlotte, 98000 Monaco

Tel: +377 678633122

Web: www.stratos.aero

Email: info@stratos.aero

Activities: Aircraft financing, sourcing and remarketing for large commercial jets and turboprops. Airline and lessor M&A advisory services.

Contact: Gary Fitzgerald

Studio Pierallini

Address: Rome office: Viale Liegi no. 28, 00198 – Rome, Italy
Milan office: Piazza Castello no. 26, 20121 – Milan, Italy.

Tel: Rome Office +39 06 8841713

Fax: +39 06 8840249.

Tel: Milan office +39 02 86915468

Fax: +39 02 877504

Web: www.studiopierallini.it

Activities: The firm has over 20 years unique international experience in aviation law, providing a broad range of legal and regulatory services to air carriers, operators, lessors, lenders, manufacturers and handling companies.

Contacts:

Ms. Laura Pierallini, Founder and Name Partner
Email: l.pierallini@pierallini.it

Mr. Gianluigi Ascenzi, Senior Associate
Email: g.ascenzi@pierallini.it

Sumisho Aero Engine Lease B.V.

Address: WTC Tower B 16F, Strawinskylaan 1639, 1077 XX Amsterdam, Netherlands

Fax: +31 20 705 4989

Web: www.sumisho-engine.com

Activities: Aircraft Engine Leasing (long-term)

Contacts:

Ichiro Tatara, Managing Director / CEO
Tel: +31 (0) 20 705 4981
Email: ichiro.tatara@sumisho-engine.com

Tony (Toshinori) Kondo, Vice President, Sales & Marketing
Tel: +31 (0) 20 705 4982
Email: tony.kondo@sumisho-engine.com

Swiss Aviation Consulting

Address: Rothusstrasse 9, 6331 Hünenberg, Switzerland

Tel: +41 41 798 21 00

Fax: +41 41 798 21 01

Web: www.swic.aero

Activities: Aircraft Asset Management, CAMO, Training, Aviation Industry Advisory, Aircraft Sales & Acquisition Support, Aviation Risk Management

Contacts:

Charlotte Walther
Email: cw@swic.aero

Simon Diggelmann
Tel: 41796450605
Email: sd@swic.aero

Sybarius

Address: Chaussée de Waterloo 880, Belgium

Tel: 3223790053

Fax: 3223758286

Web: www.sybarius.net

Email: jmfobe@sybarius.net

Activities: Aerospace finance and regulatory

Contact: Jean-Michel Fobe

Taag Angolan Air Lines

Tel: +244 921 874 352

Email: vipula.gunatilleka@flytaag.com

Activities: Finance

Contact: Vipula Gunatilleka

TMF Group

Web: www.tmf-group.com

Activities: Global business providing compliance services to operating/ holding companies in management, accounting and corporate secretarial services to the aviation sector in over 80 countries worldwide

Address: 1st Floor, Windward 1, Regatta Office Park, PO Box 10338, Grand Cayman KY1-1003, Cayman Islands
Tel: +1 (345) 949 7232
Fax: +1 (345) 949 7230

Contacts:

Michael Wheaton
Email: Michael.Wheaton@tmf-group.com

Dwight Dube
Email: dwight.dube@tmf-group.com
Address: 52, rue de la Victoire, F-75009 Paris, France
Tel: +33 (1) 45 03 60 36
Fax: +33 (1) 45 03 63 77
Web: www.tmf-group.com

Contacts:

David Orme Lynch, Managing Director
Email: David.Orme.Lynch@TMF-Group.com

Yvette Van Loon, Commercial Directo
Email: yvette.van.loon@tmf-group.com

Address: Eschenheimer Anlage 1, D-60316, Frankfurt am Main, Germany
Tel: +49 (69) 663 698 00
Fax: +49 (69) 663 698 80
Web: www.tmf-group.com

Contacts:

Ursula Rutovitz, Managing Director
Email: ursula.rutovitz@tmfgroup.com

Angela Bartl
Email: Angela.Bartl@TMF-Group.com

Address: 36/F, Tower Two, Times Square, 1 Matheson Street, Causeway Bay, Hong Kong SAR
Email: info.apac@tmf-group.com
Tel: +852 3188 8333
Fax: +852 3589 8555

Contact:

Mark O'Sullivan, Managing Director
Email: Mark.OSullivan@tmf-group.com

Address: #1302, Tower 3, Indiabulls Finance Centre, Senapati Bapat Marg, Elphinstone Road (West), Mumbai - 400 013, India
Email: info.apac@tmf-group.com
Tel: +91 22 4921 7300
Fax: +91 22 4921 7309

Contact:

Shagun Kumar, Director
Email: Shagun.Kumar@tmf-group.com

Address: 3rd Floor, Kilmore House, Spencer Dock, Dublin 1, Ireland
Tel: +353 (1) 614 6240
Fax: +353 (1) 614 6250

Contact:

Kevin Butler
Email: kevin.butler@tmf-group.com
Address: Tokyo Club Building 11 F, 3-2-6 Kasumigaseki, Chiyoda-ku, Tokyo 100-0013, Japan
Tel: +81 (3) 3596 0123
Fax: +81 (3) 3596 0120

Contact:

Dr. Junichi Kato, Managing Director
Email: Junichi.Kato@tmf-group.com

Address: Tokyo Club Building 11 F, 3-2-6 Kasumigaseki, Chiyoda-ku, Tokyo 100-0013, Japan
Tel: +81 (3) 3596 0123
Fax: +81 (3) 3596 0120
Web: www.tmf-group.com
Email: info.apac@tmf-group.com

Address: 28-30 The Parade, St Helier, Jersey JE1 1EQ, Channel Islands.
Tel: +44 (1534) 636 211
Fax: +44 (1534) 636 215

Contact:
Mirek Gruna, Managing Director
Email: mirek.gruna@tmf-group.com

Address: 46A, Avenue J.F Kennedy, L-1855 Luxembourg.
Tel: +352 427 1711
Fax: +352 421 961

Contact:

Bruno Bagnouls, Managing Director
Email: Bruno.Bagnouls@tmf-group.com
Address: 46A, Avenue J.F Kennedy, L-1855 Luxembourg
Email: luxembourg@tmf-group.com
Tel: +352 427 1711
Fax: +352 421 961

Contact:

Shehzaad Atchia
Email: shehzaad.atchia@tmf-group.com

Address: SmartCity Malta, Block SCM01, Level 04, Ricasoli, SCM 1001, Malta
Email: malta@tmf-group.com
Tel: +356 (22) 063 000
Fax: +356 (21) 228 465

Contact:
Ulyana Holovenko, Managing Director
Email: Ulyana.Holovenko@TMF-Group.com

Address: 3rd Floor, Raffles Tower, 19 Cybercity, Ebene, Mauritius
Email: mauritius@tmfgroup.com
Tel: +230 464 5995
Fax: +230 464 5115

Contacts:

Chantale Wan, Managing Director
Email: chantale.wan@tmf-group.com

Ian Shearer
Email: ian.shearer@tmfgroup.com

Address: Pl. Pilsudskiego 1, 00-078 Warsaw, Poland
Email: poland@tmf-group.com
Tel: +48 (22) 456 4500
Fax: +48 (22) 456 4599

Contacts:
Mikolaj Plucinski, Managing Director
Email: Mikolaj.Plucinski@TMF-Group.com

Address: 16A, Leningradskoe Shosse Metropolis Business Center, Building 1, Floor 8, 125171 Moscow, Russia Federation.
Email: russia@tmfgroup.com
Tel: +7 (495) 777 0085
Fax: +7 (495) 777 0086

Contact:

Danara Sharpe, Interim Managing Director
Email: Danara.Sharpe@TMF-Group.com

Address: 38 Beach Road, South Beach Tower, #29-11 Singapore 189767
Email: info.apac@tmf-group.com
Tel: +65 6808 1600;
Fax: +65 6808 1616

Contact:

Kim Leng Siaw, Managing Director
Email: KimLeng.Siaw@TMF-Group.com

Address: Travessera de Gràcia 11, 5ª (5th floor), 08021 Barcelona, Spain
Email: spain@tmf-group.com
Tel: +34 (93) 414 3822
Fax: +34 (93) 414 6014

Contact:

Isidro Helder, Commercial Director
Email: Isidro.Helder@tmf-group.com

Address: Rue de Candolle 17, CH-1205 Geneva; Mailing Address: PO Box 604, CH-1211 Geneva 4, Switzerland
Email: switzerland@tmfgroup.com
Tel: +41 (22) 544 8100
Fax: +41 (22) 544 8111

Contact:

Matthias Belz, Managing Director
Email: Matthias.belz@tmf-group.com

Address: Luna ArenA, Herikerbergweg 238, 1101 CM Amsterdam The Netherlands
Email: netherlands@tmf-group.com
Tel: +31 (20) 575 5600
Fax: +31 (20) 676 0016

Contact:

Huib de Kanter, Managing Director
Email: huib.de.kanter@tmf-group.com

Address: 6 St Andrew Street, London EC4A 3AE, UK
Email: united.kingdom@tmfgroup.com
Tel: +44 (20) 7832 4900
Fax: +44 (20) 7832 4901

Contact:

Sue Lawrence, Managing Director
Email: Sue.Lawrence@tmf-group.com

Address: Nassima Tower, Office 1401, Sheikh Zayed Road, PO Box 213975, Dubai, UAE
Tel: +971 (4) 321 8498
Fax: +971 (4) 321 8499
Email: uae@tmf-group.com

Contact:

Julian Dietz, Managing Directo
Email: Julian.dietz@tmf-group.com

Address: 48 Wall Street, 27th Floor, New York, NY 10005, USA
Email: new.york@tmfgroup.com
Tel: +1 (212) 346 9000
Fax: +1 (212) 346 9012

Contacts:

Jason Gerlis, Managing Director
Email: Jason.Gerlis@tmf-group.com

Andrew Steck
Email: andrew.steck@tmf-group.com

Address: 1221 Brickell Avenue, Suite 1200, Miami, FL 33131, USA
Tel: +1 (305) 377 1200
Fax: +1 (305) 377 2293
Email: miami@tmfgroup.com

Contact:

Jason Gerlis, Managing Director
Tel: +1 (305) 377 1200
Fax: +1 (305) 377 2293
Email: Jason.Gerlis@tmf-group.com

Trade Air

Address: Vladimira Nazora 5

Tel: +385 1 6265 053/054

Fax: +385 1 6265 046

Web: www.trade-air.com

Email: fly@trade-air.com

Activities: Airline management

Contact Marko Cvijin

TwelveBillion Limited

Address: Suite 34 New House 67-68 Hatton Garden London EC1N 8JY UK

Tel: 442032877977

Fax: 448712339255

Web: www.twelvebillion.com

Email: Support@TwelveBillion.com

Activities: Aircraft lease management and support

Contact: Mathina Maideen

Tyabji Dayabhai

Address: Lentin Chambers, Dalal Street, Mumbai 400001, India

Tel: +91 (22) 2265 0342

Fax: +91 (22) 2265 8209.

Web: www.tyabjidayabhai.com

Email: nimish.vakil@tyabjidayabhai.com

Activities: The firm represents various leasing companies including GECAS, CIT, AWAS, Intrepid, Milestone, Jackson Square, Guggenhein, Chenng Kong, Alterna; banks including US Exim, EDC, Investec, Deutsche Bank, Wilmington Trust, Wells Fargo, Bank of Nova Scotia, Standard Chartered, KFW, ING, Natixis and manufacturers including ATR Hawker Beechcraft in matters including lease and sale of aircraft to Indian operators.

Contact: Nimish Vakil, Partner

Uria Menéndez

Address: Principe de Vergara 187, 28002 Madrid, Spain

Tel: +34 91 5860486

Web: www.uria.com

Email: jff@uria.com

Activities: Air Law (Financing, Regulatory And Contracts), Corporate, M&A

Contact: Juan Francisco Falcon

Vector Aerospace France

Address: 1 boulevard du 19 mars 1962 - F 95500 Gonesse, France

Tel: 0033 1 30 18 54 54

Web: www.vectoraerospace.com

Email: sales.vectorfrance@vectoraerospace.com

Activities: MRO

Vedder Price

Address: 1925 Century Park East Suite 1900, Los Angeles, CA 90067, USA

Tel: +1 (424) 204 7744

Web: www.vedderprice.com

Activities: Global team of over 60 professionals in Chicago; New York; Washington, DC; London; San Francisco; Los Angeles, representing transportation finance clients worldwide.

Contact:

Raviv Surpin, Shareholder
Email: rsurpin@vedderprice.com

Address: 275 Battery Street, Suite 2464, San Francisco, CA 94111, United States
Tel: +1 (415) 749 9540

Contact:

Thomas Zimmer , Shareholder
Email: tzimmer@vedderprice.com

Address: 4 Coleman Street London, EC2R 5AR, United Kingdom
Tel: +44 (0)20 3667 2910

Contact:

Gavin Hill, Partner
Email: ghill@vedderprice.com

Address: 1401 I Street NW, Suite 1100 Washington, DC 20005, USA
Tel: +1 (202) 312 3330

Contact:

Edward K. Gross, Shareholder
Email: egross@vedderprice.com

Address: 1633 Broadway, 47th Floor New York, NY 10019, USA
Tel: +1 (212) 407 7730

Contact:

Ronald Scheinberg, Shareholder
Email: rscheinberg@vedderprice.com

Address: 222 North La Salle Street Chicago, IL 60601, USA
Tel: +1 (312) 609 7638

Contact:

Dean N. Gerber, Shareholder & Chair (Global Transportation Finance Team)
Email: dgerber@vedderprice.com
Address: 4 Coleman Street London, EC2R 5AR, United Kingdom
Tel: +44 (0)20 3667 2947

Contact:

Neil Poland, Partner
Email: npoland@vedderprice.com

Address: 1401 I Street NW, Suite 1100 Washington, DC 20005, USA
Tel: +1 (202) 312 3340

Contact:

David M. Hernandez, Shareholder
Email: dhernandez@vedderprice.com

Address: 1633 Broadway, 47th Floo rNew York, NY 10019, USA
Tel: +1 (212) 407 7728

Contact:

Jeffrey T. Veber, Shareholder
Email: jveber@vedderprice.com

Address: 222 North La Salle Street Chicago, IL 60601, USA
Tel: +1 (312) 609 7553

Contact

Geoffrey R. Kass, Shareholder
Email: gkass@vedderprice.com

Veling

Address: Veling, Landmark House, 6th Floor North Wing, Blacks Road, Hammersmith, London, UK

Tel: 020 8629 6663

Web: www.veling.aero

Email: kevin.sowerby@veling.aero

Activities: Aircraft leasing, sales and remarking, asset management

Contact: Kevin Sowerby

Vfs Grümmer GmbH

Address: Flugplatz 8, 44319 Dortmund, Germany

Tel: +49 231 9271770

Fax: +49 231 92717730

Web: www.gruemmer.aero

Email: info@vfs-gruemmer.de

Activities: Aviation Insurance Broker

Contact: Patrick Gruemmer

Vietnam Aircraft Leasing Company

Address: Vietnam Aircraft Leasing Company, 14th Floor, Tower A Vincom, 191 Ba Trieu Street, Hanoi, Vietnam

Web: www.valc.com.vn

Activities: Leasing

Contacts:

Tran Phuong Lan
Email: lan.tran@valc.com.vn

Nguyen Dinh Nghia
Email: nghia.nguyen@valc.com.vn

VistaJet International Limited

Tel: +44 (0) 207 060 5700

Web: www.vistajet.com

Email: contactus@vistajet.com

Activities: VistaJet, the leading Global business aviation company, operates the largest privately owned Bombardier business aircraft fleet, over 60 large-cabin, long-range Global and Challenger jets. Through VistaJet's Program and On Demand services, customers enjoy the guaranteed access and freedom of private aircraft ownership without the asset risk or management responsibilities.

VMC Aero

Address: 2 Beverley Mews Three Bridges Crawley, RH10 1UE, UK

Tel: 7875949147

Web: www.vmcaero.com

Email: info@vmcaero.com

Activities: Technicl Avaition Consultancy Aircraft transitions, Pre Purchace / Lease inspections and Inventory audits

Contact: Vince Coutt

Walkers' Asset Finance

Web: www.walkersglobal.com

Activities: Walkers' asset finance team offers Bermuda, British Virgin Islands, Cayman Islands, Irish and Jersey law advice in relation to asset finance transactions on a global basis. We have a team of specialist asset finance lawyers drawn mainly from the leading international firms with extensive experience in complex asset finance matters. We bring both onshore and offshore perspectives to asset finance deals, advising financial institutions, arrangers, airlines, lessors and shipping companies on their asset finance transactions. We are familiar with the structuring of asset finance deals to marry with onshore tax and securities law considerations. We have extensive experience in the establishment of Irish leasing platforms and advise on their set-up from a legal and tax perspective, providing ongoing advice to ensure compliance with Irish law in a tax efficient manner.

Contacts:

British Virgin Islands
John Gosling, Partner
Tel: +1 284 852 2227
Email: john.gosling@walkersglobal.com

Cayman Islands
Richard Munden, Partner
Tel: +1 345 814 6835
Email: richard.munden@walkersglobal.com

Dubai
Daniel Wood, Managing Partner
Tel: +971 4 363 7912
Email: daniel.wood@walkersglobal.com

Hong Kong SAR
Andy Randall, Managing Partner
Tel: +852 2596 3305
Email: andy.randall@walkersglobal.com

Ireland
Aaron McGarry, Partner
Tel: +353 1 470 6621
Email: aaron.mcgarry@walkersglobal.com

David McGovern, Partner
Tel: +353 1 470 6663
Email: david.mcgovern@walkersglobal.com

Ken Rush, Partner
Tel: +353 1 470 6619
Email: ken.rush@walkersglobal.com

Jersey
Nigel Weston, Partner
Tel: +44 1534 700 788
Email: nigel.weston@walkersglobal.com
London
Jack Boldarin, Managing Partner
Tel: +44 20 7220 4995
Email: jack.boldarin@walkersglobal.com

Singapore
John Rogers, Managing Partner
Tel: +65 6595 4673
Email: john.rogers@walkersglobal.com

Bermuda (Taylors)
Jonathan Betts, Partner - Taylors
Tel: +1 441 242 1511
Email: jonathan.betts@walkersglobal.com

Wardyński & Partners

Address: ul. Ludwinowska 7/5, Warsaw, Poland

Tel: 12 290 86 20

Fax: 12 290 86 21

Web: www.wardynski.com.pl

Email: pawel.mazur@wardynski.com.pl

Activities: Aviation, transport, infrastructure and construction projects, real estate, post-transaction disputes

Contact: Paweł Mazur

Watson Farley & Williams

Address: 15 Appold Street, London, EC2A 2HB, UK

Fax: +44 20 7814 8141

Web: www.wfw.com

Activities: Legal advisers with 14 global offices, acting for banks, export credit agencies, arrangers, investors, manufacturers, operators, airlines and lessors. Provides comprehensive advice across a range of asset classes, including commercial and corporate jets, helicopters and airport landing slots.

Contacts:

Jahnavi Ramachandran, Partner
Tel: +44 20 7863 8976
Email: jramachandran@wfw.com

Rex Rosales, Global Head of Transport
Tel: +44 20 7863 8975
Email: rrosales@wfw.com

Address: 6 Battery Road #28-00, Singapore 049909

Tel: +65 6551 9123

Fax:+65 6532 5454

Email: ssubramaniam@wfw.com

Contact: Siva Subramaniam, Partner

Address: 26, avenue des Champs-Elysées, 75008 Paris, France

Tel: +33 1 56 88 44 40

Fax: +33 1 56 88 21 20

Email: cviggers@wfw.com

Contact: Charles Viggers, Partner

Webber Wentzel

Address: 90 Rivonia Road, Sandton, 2196, Gauteng, South Africa

Tel: +27 11 530 5209

Fax: +27 11 530 6209

Web: www.webberwentzel.com

Email: haydn.davies@webberwentzel.com

Activities: Aviation

Contact: Haydn Davies

Westpac

Address: L3 275 Kent Street Sydney NSW 2000, Australia

Tel: +612 8254 8714

Fax: +612 8254 6941

Web: www.westpac.com.au

Email: aboland@westpac.com.au

Activities: Aircraft Finance

Contact: Antony Boland

White & Case LLP

Address: 1155 Avenue of the Americas New York, New York 10036-2787
USA

Contacts:

Chris Frampton, Partner, Global Head of Asset Finance
Tel: +1 212 819 8426
Email: cframpton@whitecase.com

Ji Hong, Partner
Tel: +1 212 819 8200
Email: ji.hong@whitecase.com

Someera Khokhar, Partner
Tel: +1 212 819 8200
Email: skhokhar@whitecase.com

Mike Smith, Partner
Tel: +1 212 819 8200
Email: msmith@whitecase.com

Address: Southeast Financial Center
200 South Biscayne Boulevard, Suite 4900
Miami, Florida 33131-2352
USA

Contact:

Chris Hansen, Partner
Tel: +1 305 995 5272
Email: chansen@whitecase.com

Address: 555 South Flower Street, Suite 2700
Los Angeles, California 90071-2433
USA

Contact:

Rick Smith, Partner
Tel: +1 213 620 7788
Email: rsmith@whitecase.com

Address: 5 Old Broad Street
London EC2N 1DW
UK

Contacts:

Adrian Beasley, Partner
Tel: +44 20 7532 1000
Email: abeasley@whitecase.com

Justin Benson, Partner
Tel: +44 20 7532 1000
Email: jbenson@whitecase.com

Louise Mor, Partner
Tel: +44 20 7532 2368
Email: lmor@whitecase.com

Alison Weal, Partner
Tel: +44 20 7532 2380
Email: aweal@whitecase.com

Address: 19, Place Vendôme
75001 Paris, France

Contact:

Victoria Westcott, Partner
Tel: +33 1 55 04 15 15
Email: vwestcott@whitecase.com

Address: 19th Floor, Tower 1 of China Central Place
81 Jianguo Lu, Chaoyang District
Beijing 100025
China

Contact:

Hallam Chow, Partner
Tel: +86 10 5912 9780
Email: hchow@whitecase.com

Address: Marunouchi Trust Tower Main
26th Floor, 1-8-3 Marunouchi
Chiyoda-ku, Tokyo 100-0005
Japan

Contact:

Simon Collins, Partner
Tel: +81 3 6384 3300
Email: scollins@whitecase.com

Address: 9th Floor Central Tower
28 Queen's Road Central
Hong Kong

Contact:

Jessica Zhou, Local Partner
Tel: +852 2822 8700
Email: jessica.zhou@whitecase.com

Address: Danışmanlık Hiztmetleri Avukatlık Ortaklığı
Büyükdere Caddesi No: 102 Kat 28/109
34394 Esentepe-Istanbul
Turkey

Contact:

Sebastian Buss, Partner
Email: sbuss@whitecase.com
Address: Valentinskamp 70 / EMPORIO
20355 Hamburg
Germany

Contact:

Florian Degenhardt, Partner
Tel: +49 40 35005 0
Email: fdegenhardt@whitecase.com

Address: Level 6, Burj Daman, Al Sa'ada
Street, DIFC
PO Box 9705, Dubai
UAE

Contact:

Debashis Dey, Partner
Tel: +971 4 381 6202
Email: debashis.dey@whitecase.com
Address: 4 Romanov Pereulok
125009 Moscow
Russia

Contact:

Natalia Nikitina, Partner
Tel: +7 495 787 3000
Email: nnikitina@whitecase.com

Zeevo Group LLC

Address: 701 Fifth Avenue, Floor 42; Seattle, WA 98104 USA

Tel: +1 760 933 8607

Web: www.zeevogroup.com

Activities: Zeevo Group's global team of industry experienced professionals advise lessors, manufacturers, and airlines on a range of business operations, technology, internal control and software development matters.

Contacts:
Joey Johnsen
Email: jjohnsen@zeevogroup.com

John McCartney, Advisory Principal in Los Angeles
Email: jmccartney@zeevogroup.com

Karen Curtis, Advisory Principal in Los Angeles
Email: kcurtis@zeevogroup.com

Zimex Aviation Ltd

Address: Cherstrasse 4, 8152 Glattbrugg, Switzerland

Tel: 41448155353

Fax: 41448155321

Web: www.zimex.com

Email: welcome@zimex.com

Activities: Utility Avaition, Express Cargo, Base / Line Maintenance, ATO

Zuckert, Scoutt & Rasenberger, L.L.P.

Address: 888 Seventeenth Street, N.W., Washington, D.C. 20006, USA

Tel: 202-298-8660

Fax: 202-342-0683

Web: www.zsrlaw.com

Email: info@zsrlaw.com

Activities: Export credit financing; cross-border leasing