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Clouds of recession begin to disperse

A sector savaged by the downturn is finally seeing a return to stability, if not to the best of health, reports **Pilita Clark**

First came news that the glut of aircraft up for sale was no longer swelling so rapidly and the dive in used business jet prices appeared to be levelling off.

Then reports emerged that the number of business jet flights in the US and Europe was edging up.

Finally, the crisis that has gripped much of the corporate aviation industry since the collapse of the Lehman Brothers investment bank in September 2008 looks as if it has stabilised. But the sector is still far from being in vibrant health.

"The good news is that the market has stopped falling, and some of the leading indicators offer encouragement," says Richard Aboulafia, analyst at the Virginia-based Teal Group aerospace and defence consultancy.

"The bad news is that this is a three-year downturn. The key driver, corporate profits, show only limited signs of a recovery. Used aircraft prices remain weak. Also, it will take some time to reduce high inventories of available jets. We do not see deliveries growth resuming until 2012."

Others share his sentiment. Analysts at UBS Investment Research said in April in their business jet update that even though leading indicators showed the market had stabilised, threats remained.

"We see risk of a muted recovery given significant oversupply, fractional weakness and tight financing," they said.

Ahead of this year's European Business Aviation Convention and Exhibition (Ebace) in Geneva, some of the region's biggest players are equally cautious about what lies ahead.

At NetJets Europe, the continent's largest business jet group, Eric Connor, chairman and chief executive, says he has a "quiet confidence for 2010", after a turbulent 12-month period that has encompassed staff cuts, aircraft delivery deferrals and an extensive shake-up of the company's top executives.

The fractional ownership group has seen a 12.7 per cent increase in hours flown in the first quarter of 2010, compared with the same quarter last year, and a 60 per cent increase in jet card sales to its customers.

"Overall, we lost 83 customers in the first quarter of 2009 and we have gained 32 customers in the first quarter of 2010, so the difference there is pleasant," says Mr Connor.

"If I compare flight revenues, we are approximately 13 per cent above what we budgeted and the revenue flights are above what was in 2009 for the same period.

"We're also beginning to see some customers who left us in 2008 and 2009 expressing an interest in returning, which we take to be positive."

The fractional ownership sector more broadly is under pressure, according to new data published today by Honeywell Aerospace in an international refocusing of its latest Business Aviation Outlook.

"Owners of fleets serving fractional shareholders and jet card purchasers have reduced demand sharply in the current recession," says Honeywell. "Fractional fleet operators still account for about 10 to 12 per cent of the backlog for business jets, but have drastically curtailed current new aircraft additions in the face of net share sales erosion.

"New jet deliveries to fractional fleet operators were off more than 80 per cent in 2009. In the first quarter of 2010, no new jet aircraft have been delivered to major fractional providers. Sales of new ownership shares have continued to deteriorate further after 2009 posted a 52 per cent loss. As a result, Honeywell is projecting much lower deliveries into this segment as excess capacity is worked off and shareholder levels are rebuilt."

At TAG Aviation, the Switzerland-based private aircraft management and charter company, and owner of Farnborough airport, the most important base for private jet travel in the UK, Robert Wells, the chief executive, is slightly more upbeat.

"I've seen four up-and-down cycles in my business aviation career," he says. "Each time the recovery has been stronger than the previous one, so I'm optimistic about the current state of affairs."

Mr Wells is focusing on Africa. "One encouraging sign recently was the first delivery of the new Bombardier Global Express XRS to a customer in Nigeria. That says a lot about how much room there remains for business aviation to grow," he says.

Simon Pryce, chief executive of BBA Aviation, the world's leading provider of service bases for business jets, says the basic foundations of the industry are strong and near-term indications are positive.

But as Mr Aboulafia points out, there are huge differences within the industry in terms of which parts have been hardest hit.

"The most unusual aspect of the market right now is the unprecedented bifurcation of market behaviour," he says.

"The top half of the market – jets costing $25m and above – barely felt any pain last year, with deliveries falling a mere 4.1 per cent. The bottom half – jets costing $4m to $24m – fell by a catastrophic 42.8 per cent. The market has never seen bifurcation like this."

It is difficult to find anyone willing to forecast an early return of the boom times, when business jet deliveries surged to more than 1,000 in a single year for the first time in 2007, and rose again to more than 1,300 in 2008.

Last year, that number was 870, according to the General Aviation Manufacturer's Association's annual industry review released in February.

According to the Ascend aerospace consultancy, annual global business jet deliveries will not go above 1,300 again until 2016.

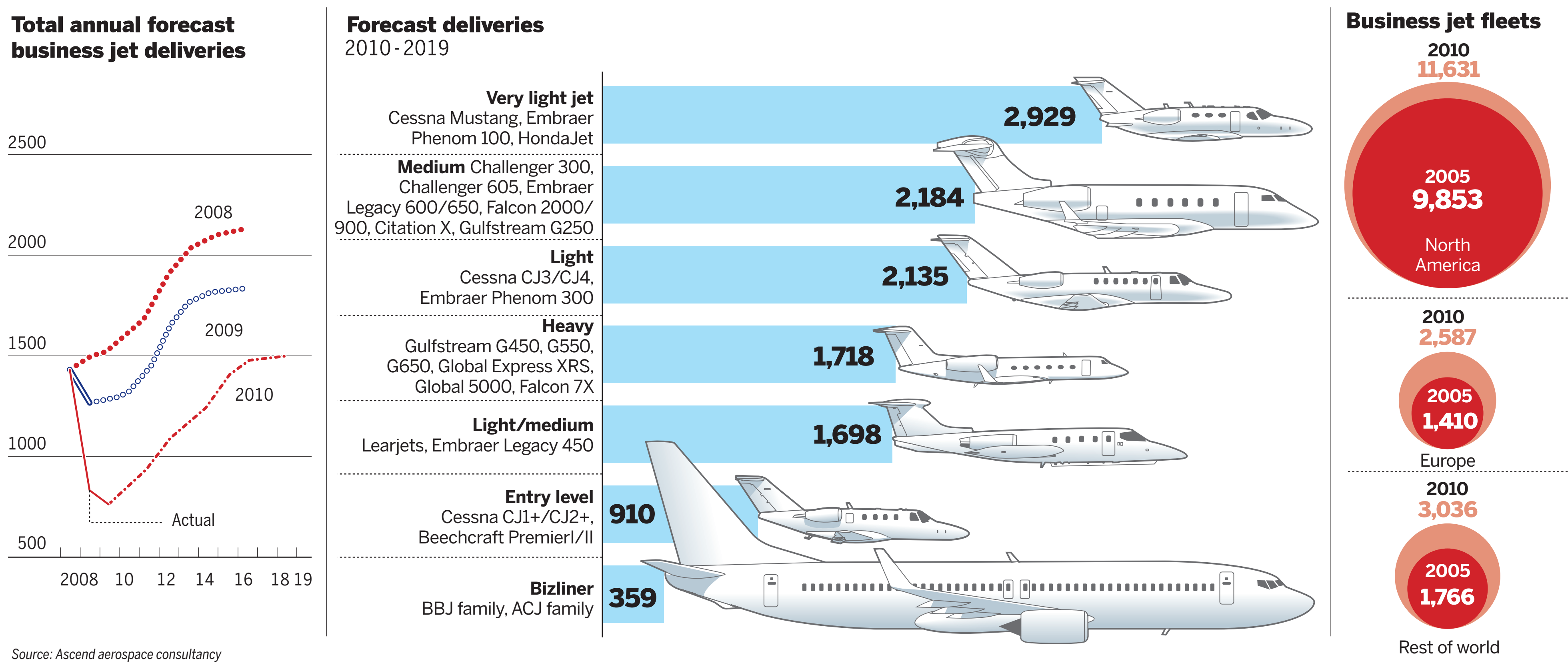
But such forecasts need to be put in perspective given the nature of the boom that preceded the bust, says Gary Crichlow, a senior analyst at Ascend.

"I think the market is still having difficulty getting its head round realising 2008 was the peak," he says.

Mr Crichlow remembers "Crisis what crisis?" headlines in 2008. "Over the past couple of years we have seen that the business aviation market is like any other industry," he says.

"The party ended quite harshly. But, two years on, we are seeing it's the same old economic cycle. The fundamentals that underline the business jet industry haven't changed."

Slow climb: business jet forecasts and fleet size



Source: Ascend aerospace consultancy

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Funding woes bring high ambitions down to earth

Air taxis

One start-up has failed even to get off the ground, says **Kevin Done**

Many fledgling aviation ventures hatched during the heady days of the bubble economy have failed during the recession. Those still flying have been forced to rein in their ambitions and restructure to survive.

High hopes were placed in particular on the start-up of low-cost private jet businesses – sometimes dubbed air taxis – seeking to exploit the arrival in the market for the first time of four-passenger very light jets. These ventures have proved to be among the most vulnerable, however, as sources of capital dried up and demand shrank.

The latest notable casualty is Ireland's JetBird, the most ambitious venture planned in Europe.

Its failure to get off the ground has come as a serious setback for its founder and chairman, Domhnal Slattery, a leading Irish financier, and has robbed Embraer, the Brazilian aircraft maker, of its most important customer in Europe for its new range of Phenom 100 very light jets.

JetBird appeared the most promising of the ventures setting out to make private jet travel more affordable at prices up to 50 per cent below those of existing charter operators.

However, Stefan Vilner, chief executive of JetBird, says the business has been "put into hibernation", after the launch was abandoned at the last moment.

The pilots, hired and trained to fly the Phenoms, have been made redundant. The initial six aircraft built by Embraer for JetBird were never delivered and are being sold to other operators in North America.

> 'We were ready to launch but finally we wanted to preserve shareholder money'

By contrast, Blink, a UK venture founded by two young former investment bankers, Peter Leiman and Cameron Ogden, which began revenue operations in June 2008, is still flying and reports a recovery in demand in the early months of this year.

"We have seen a significant improvement since December," says Mr Leiman.

Inevitably, growth has been much slower than originally forecast, and Blink has been forced to defer deliveries of its chosen jet, the Cessna Mustang, due during 2010.

Mr Leiman says that Blink is planning to resume capacity expansion in 2011, however.

It expects to add three to five aircraft a year to its existing fleet of seven, as it gradually takes delivery of the 30 Mustangs it had placed firm orders for in mid-2007. All should be delivered by 2014, according to the present plan.

Mr Vilner, previously chief commercial officer of Sterling Airlines, the former Danish low-cost carrier, says JetBird missed a number of planned launch dates last year, but was finally forced to abort the start of operations because of its inability to raise sufficient equity capital.

Funds promised by an investor from Saudi Arabia, and announced as a done deal in September 2008, failed to materialise and left JetBird at risk of failing to meet key covenants in the aircraft financing deal it had prepared with United

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Market split overshadows optimism

Jet prices

Experts are warning that any bounceback is likely to be muted, reports Jeremy Lemer

Order cancellations and hundred-million dollar revenue falls are never good news. But for Cessna and the business jet market, they are, perversely, a sign of slow improvement.

In the first quarter of the year revenues at Cessna, the leading business jet maker, tumbled by almost 50 per cent to $433m and the order backlog fell 17 per cent to $4.1bn, as cancellations continued to come in.

The company, owned by industrial group Textron, reported an operating loss of $24m for the three months to end-March. In the same period of 2009, it made an operating profit of $90m.

Still, Scott Donnelly, the new chief executive of Textron, was cautiously optimistic, suggesting that the business jet market was heading towards a turn and that revenues, of which Cessna makes up about a third, had bottomed out.

Shares in Textron, which also owns Bell Helicopter, jumped more than 12 per cent on the day of the results.

"World economies generally appear to be recovering," he said. "We believe the economic trend will translate to an eventual rebound in orders for business jets and commercial helicopters."

He said official data showed people were flying more in their business jets, that corporate profits were up and that Cessna was seeing more prospective buyers taking demonstration rides.

According to UBS, 2,704 used business jets were available for sale at the end of March, or about 15 per cent of the total operating fleet, down 12 per cent from the peak in May 2009. In January, Cowen and Company noted that US business jet departures rose 10 per cent.

"Clearly, the past 18 months have been difficult... but the increased level of sales activity towards the end of the quarter bodes well for this industry to start to turn," Mr Donnelly said.

Difficult is perhaps an understatement.

In 2007, business jet makers seemed unstoppable, as deliveries surged to more than 1,000 for the first time and then rose again in 2008. Cessna and its peers, Gulfstream, owned by General Dynamics, Bombardier and others, planned for growth.

By 2009, however, the bottom had fallen out of the market, as the global economic downturn and a wave of adverse public sentiment took their toll.

Cash-strapped companies and individuals looked to sell assets and used business jets flooded the market. At the low point in May, almost 18 per cent of the entire fleet of business jets was up for sale and prices fell more than 50 per cent.

With used jets in abundance, deliveries of new aircraft plunged. Last year, the business jet industry delivered 870 aircraft worth about $17.3bn, down 34 per cent on the previous year.

To cope, Cessna cut its 16,000-strong workforce in half, slashed its production rates and began to move work to lower-cost locations. Hawker Beechcraft and other rivals also cut jobs.

The recovery has been slow, says Brian Foley, an industry consultant. "The good news is that for a while we drove off a cliff and were bouncing off the rocks below. But now there seems to be some stability forming in the market."

> 'The economic trend will translate to a rebound for business jets and commercial helicopters'

The latest data from UBS, however, suggests that the outlook is fragile. In March, prices continued to fall in three out of six categories of used aircraft and a market survey showed sentiment had stalled after improving for eight months.

Moreover, the market has begun to fracture – seemingly splitting in two as the recovery takes hold, says Cai von Rumohr, an analyst with Cowen and Company.

Larger aircraft made by companies such as Gulfstream have recovered strongly. Used models are in short supply, thanks to interest from international customers who want long-range aircraft, rich individuals and private companies.

At Gulfstream, orders for large-cabin aircraft improved steadily throughout 2009, and the company is predicting a low to mid single-digit increase in revenues in 2010 and a slight bump to profit margins.

The market for mid-sized jets, however, remains weak and General Dynamics does not see any recovery in 2010. Inventories of secondhand short- and medium-range planes remain elevated at 17 and 15 per cent of the fleet, compared with a norm of about 12 per cent.

"In Cessna's markets there are still good used planes available and its competitors have also been dropping their prices." Mr Rumohr says. "Also, more of their buyers are publicly owned US companies that have been under pressure."

Some analysts worry that any bounceback in the market as a whole will be muted.

"Between 2006 and 2008, credit was very loose and half of all business jets were financed, many with deals including zero per cent down and low rates," says Mr Foley. "That is all gone now. Lenders are asking for 20 to 30 per cent down now."

At the same time, companies such as NetJets that stimulated the market by selling fractions of aircraft are trying to repair their balance sheets and are not adding new jets, removing another key driver of demand.

In his 10-year forecast, Mr Foley paints an attractive picture. Manufacturers will sell 8,900 business jets worth about $170bn, but annual sales will be limited.

"It is going to be a modest rise – 2.5 per cent – a year and [in the 10 years] it will not quite reach where it was in 2008."

Funding woes dash hopes

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Technologies, parent company of Pratt & Whitney, maker of the Phenom engines.

The Middle East investor was supposed to inject €10m to secure a stake of 9.3 per cent, joining Mr Slattery, the leading shareholder, whose Dublin-based Claret Capital had previously led the initial fund raising that had brought in €21m in December 2007.

JetBird was planned to be the first pan-European operator of very light private jets.

It was one of the most ambitious ventures planned by Mr Slattery, formerly managing director of the structured asset finance business of Royal Bank of Scotland, who made his initial fortune in aircraft leasing.

It placed a firm order in 2006 for 50 Phenoms with options for another 50, and had 15 due for delivery by December last year.

"Things never work out the way you thought," says Mr Vilner. "We were ready to launch, but finally we wanted to preserve shareholder fundsy until other investors were ready to put equity in."

The aircraft financing deal had included covenants on the minimum cash requirements for running the business and "we were not comfortable we could meet these requirements", says Mr Vilner. "We decided it was too risky."

The JetBird business plan was based on reaching a significant scale quickly, and breaking even with a fleet of 18-19 aircraft.

Staffing has been cut from 34 prior to the planned launch, to eight, who are concentrating on trying to find equity backing and on negotiating a revised deal with Embraer.

The Brazilian aircraft maker says it is "currently discussing a new purchase agreement for aircraft deliveries in the future".

JetBird is not taking delivery of aircraft, says Mr Vilner.

"We want to go out and do a thorough equity search. It is difficult right now. There are very few parties wanting to invest in private aviation. We would rather preserve our cash and keep a low profile."

Mr Slattery has decided to concentrate his efforts for the moment on more lucrative prospects back in his old field of aircraft leasing.

Mr Leiman, one of the co-founders of Blink and a former UBS investment banker, has reasons for greater optimism.

Blink was the first in Europe to test the very light jet model, and after nearly two years of operations it is still flying.

It has gained its own air operator's certificate and is learning to handle often extreme seasonality.

It is experimenting with online pricing and booking, and in the London market it is working principally from low-cost Blackbushe airfield on the Hampshire/Surrey border in preference to the much more expensive nearby Farnborough.

Mr Leiman says the biggest problem facing Blink is building awareness of the brand. "It is expensive. It depends on cash on the balance sheet and the return on the spend. That is the real question."

Education is all part of the full jet service

Profile

Dagmar Grossmann has helped open up new markets, says Jan Cienski

Central Europe is a great place for taking existing business models from more advanced economies and transplanting them. That was what occurred to Dagmar Grossmann when she was looking for a place to get back into the jet charter business.

Chartering jets for business people who have to move quickly from city to city is old hat in the US and western Europe, but it was a relatively new idea in central Europe in 2004, when most of the region was joining the European Union.

A few of central Europe's wealthiest entrepreneurs had their own aircraft, but everyone else was stuck with commercial airlines.

"I did market research and found that there was was nothing in central Europe," says Ms Grossmann, an Austrian who had run a similar venture in Vienna with her former husband.

Although she initially thought Poland made a better choice, she ended up settling on Prague, which has become the region's main centre for business aviation.

Grossmann Jet Service had a tough time at the start.

"I set it up all by myself. I even lived in the office – I rented one room and paid for it. But after being so successful in business aviation in the past, I knew it would be a success," she says.

In her first year, the biggest challenge was simply explaining what her business was about to potential clients.

"I had to be like a teacher, to explain that it is not so expensive," she says. "The biggest difficulty was to convince them that this made economic sense. I do not want to be seen as a luxury product, because then the market is very limited, I wanted to tell them that this is a business tool."

Her first client was a travel agency, which needed to move executives quickly around the region.

> 'I do not want to be seen as a luxury product, because then the market is very limited'

One year later, her company had its first aircraft, a 13-passenger Embraer 135BJ Legacy owned by her business partner.

The most popular routes were to places difficult to reach from Prague without a stop-over, such as Ireland, Moscow and Iceland, as well as more exotic point-to-point destinations in Africa and Asia.

Grossmann Jet Service now has three of its own aircraft, and employs 30 people, 12 of them pilots. With chartering aircraft from other companies, she sometimes has six or seven aicraft in the air at one time. About a fifth of her clients are from the Czech Republic.

The company managed to survive the economic crisis, when its Russian business fell steeply.

"The Russian market died all of a sudden, and it is still dead," says Ms Grossmann, who relied on her consulting business, and on contacts with travel agents promoting quick getaways for wealthy clients to help her pull through.

In all, business declined by about 15 per cent, with revenues in 2009 of €10m ($13.4m), and a profit of €500,000. This year, Ms Grossmann has had to cut prices by about 11 per cent, partly because of increased competition.

"Reducing prices is against my philosophy, because it becomes hard to raise them," she says.

The overall business jet market in Europe took a hit last year, but is showing signs of recovery, says Gary Crichlow, senior analyst with Ascend, the aerospace consultancy.

"Indications are that European business aviation charter demand is currently well above 2009 levels, although given that 2009 was a very difficult period, we're not out of the woods," he says.

Other operators have followed in Ms Grossmann's footsteps, with NetJets Europe, the fractional ownership and jet rental company, arriving in the Czech capital last year.

"Prague for some reason is the main hub for business aviation," says Ms Grossmann, pointing out that Bratislava, the capital of Slovakia, is too close to Vienna to make sense as a hub, while business in Budapest has never really taken off. She is planning to base an aeroplane in Poland later this year, as she see great potential for the Polish market.

NetJets had 300 flights to Poland last year, while Spain, a country of similar size, had 6,500 and Germany had 8,000.

The Polish business jet market should grow because of the poor road links, says Aleksander Domradzki, head of Rain Maker, a Warsaw-based transport and logistics consultancy. "There is a lot of talk but not much action in the market at the moment, in part because it is still too expensive to fly into major Polish airports," he says.

Ms Grossmann also sees big potential in Romania and Bulgaria. But she has no plans to rival NetJets – she aims to stop at five aircraft, which will still allows her to retain a tight control over her business.

"I want to keep it at the current size – otherwise the spirit of serving the client gets lost," she says.

As an illustration she points out that during the recent ash-related shutdown of much of Europe's airspace, she had two employees working constantly with a single stranded client.

That, she says, would not have been possible in a larger company.

Dagmar Grossmann: 'After being so successful in business aviation in the past, I knew it would be a success'

Fast-growing group thinks big to stay in profit

VistaJet

Kevin Done examines a strategy that has kept the downturn at bay

Despite the unfortunate timing of placing one of the biggest single orders for new business jets two years ago, only weeks before the sector was engulfed by the global recession, Thomas Flohr has survived.

The Swiss entrepreneur still chooses to keep the veil firmly in place over VistaJet's financial performance, but he says the group was "one of the very few aviation companies anywhere in the world that was profitable in 2009".

Unsurprisingly, growth was a lot slower than originally forecast, but he says VistaJet revenues and traffic still rose 20 per cent in a year when several rivals were either wiped out by the economic and financial crisis or forced to restructure.

From a tentative beginning in 2002 owning a secondhand Learjet 60, Mr Flohr has built VistaJet into one of the world's fastest-growing private aviation companies, with one of the largest wholly-owned commercial fleets outside the Americas.

He has become the leading independent buyer of business jets from Bombardier, and has developed a close relationship with the Canadian aerospace and rail transport group since taking over its troubled charter broker business outside the Americas, Skyjet International, two years ago.

Through the acquisition, Mr Flohr gained access to an extra pool of expertise as well as offices in Farnborough in the UK, Dubai and Hong Kong. Most importantly, as it turns out, he also gained a new customer base, which crucially helped cushion VistaJet against the worst of the recession.

By the end of last year VistaJet had grown to a fleet of 25 aircraft, concentrated at the upper end of the market and all supplied by Bombardier, including two long-range Global Express XRS jets, 14 Challenger 850s and 605s and nine Learjets, chiefly the larger Learjet 60s.

Operations are focused on Europe – including an important market in Russia – and the Middle East, although the plan to expand into Saudi Arabia has been dropped.

VistaJet also has some traffic in Asia with an operating base in Kuala Lumpur, and in the past six months it has discovered a rich vein of business in West Africa related both to the oil and gas industry and to work for governments and plans to open a base in Lagos.

"We are developing more as a long-haul carrier than flying in short hops," says Mr Flohr. "This is our customer profile. On short flights with small aircraft, it is difficult to make money.

"On flights of three to five hours, you can demonstrate the customer offering, and you can charge a premium over the competition for service and quality. We have distanced ourselves from the small operators."

Last year VistaJet, which has an Austrian air operator's certificate and a main operations base in Salzburg, flew about 16,500 passengers in more than 7,000 flight movements.

It has already taken delivery of two more Challenger jets from Bombardier this year with four more aircraft – two Challengers, one Global Express and one Learjet – due later in 2010 from an outstanding orderbook for 20 more jets.

Mr Flohr believes that the worst of the recession is past and that demand is improving. "We have seen a significant uptick in business in the last four months," he says.

The recession "brought a lot of life experience", however. Demand from new customers for block hours, where customers buy guaranteed aircraft availability at a fixed hourly rate typically for 100 to 300 hours' flying a year, essentially dried up for six months in the wake of the collapse of the US investment bank Lehman Brothers in September 2008.

"For six months, there was very little cheque writing," says Mr Flohr.

The underlying asset value of aircraft plunged, as the market stalled. "My biggest single fear was where the decline in asset values would stop," he says. "It has stopped now and is on the way back. The recovery started at the top end of the market.

> 'On flights of three to five hours, you can demonstrate the customer offering and charge a premium over the competition for service and quality'

"If I had been selling small blocks of 25 hours for one hour flights on small jets, where asset values dropped off a cliff, I would have lost a lot. But in long-haul, large-cabin aircraft at the top of the market, you were still able to turn a profit."

Mr Flohr says VistaJet was also saved by the diversified geography of its operations and because it was never highly dependent on customers from the financial markets.

"Some of our key clients were flying more rather than less, as they needed to get to where the latest panic was."

Nonetheless, the group was forced to cuts its prices sharply and, as overcapacity became a growing burden, it was also forced to defer some deliveries from Bombardier for new jets originally due at the end of 2010 and in 2011.

As demand gradually returns, however, VistaJet has managed to start raising prices, with a 3 per cent increase at the beginning of January and the elimination of discounts at the start of April.

Prices fell 10 per cent in the 18 months to the end of 2009, but Mr Flohr believes he could be back to mid-2008 pricing for block hours by early 2011. For top-of-the-range jets, capacity is again becoming constrained. At the worst point of the recession, VistaJet had 15-20 per cent overcapacity.

VistaJet is number two in European business aviation behind NetJets. It does not offer fractional ownership of aircraft, the key feature of the business model of its troubled, much bigger US rival, but it does offer customers the option of owning whole aircraft.

Currently, only two of the 25-strong fleet are owned in this way, but Mr Flohr says interest in asset ownership is returning, as aircraft values start to recover. Risk-takers and entrepreneurs are looking again at owning aircraft "either because they are asset-hungry or for tax reasons", whereas "in the past 18 months they would have laughed at ownership".

VistaJet still derives about 60 per cent of its business from the ad hoc charter market, largely via brokers, with 40 per cent coming from the core "programme" business of selling block charter of between 100 and 400 hours' flying a year, which was launched in mid-2008.

Mr Flohr believes the ideal proportion to optimise use of the fleet would be a 60 per cent share of block charter, and the latest expansion of the group into west Africa is helping to drive it towards this goal.

The search for new clients among the wealthiest individuals is also being intensified, following creation of a new advisory board at the start of the year.

It is chaired by Rob Hersov, a former vice-chairman of NetJets Europe, and chairman and co-founder of Adoreum, an agency set up to connect luxury brands with rich individuals.

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Cost concerns start to make propellers fashionable again

Turboprops

Sales of some older, slower aircraft have bucked the trend, reports **Rohit Jaggi**

The new King Air that Hawker Beechcraft will display in Geneva this week is a true business aircraft of the age.

A descendant of a venerable range that first flew in 1963, the King Air 350i turboprop twin has the plush, sophisticated interior of a business jet in the body of a workhorse.

That meshes neatly with the current mood of austerity. Not only is cost even more critical than in normal times, but the image of corporate aircraft use is still clouded by the public relations gaffe by US auto industry executives early in the financial crisis, when they used private jets to fly to Washington to plead for government funds.

Turboprops, which use turbine engines to drive a propeller rather than pushing out pure thrust, are more economical at lower altitudes than jets, and for short journeys the advantages add up.

In good times, owners and operators have preferred the speed – and image – of jets.

The business turboprop fleet in North America grew 12 per cent to 8,478 this year compared with five years ago, according to figures from the Ascend aerospace consultancy. But at the same time, in the same region, the business jet fleet grew 18 per cent to 11,631.

In Europe, the contrast is more marked. A 29 per cent increase in the business turboprop fleet to 1,493 compares with 83 per cent growth in business jets to 2,587. And across the rest of the world the equivalent rises are 26 per cent to 3,926 in turboprops, 72 per cent to 3,036 in jets.

But behind those long-term shifts are some other trends.

"Turboprops have been a very stable market niche for people who don't need speed or range – those for whom cost is the bottom line," says an aviation analyst. "You can't beat the operating value turboprops bring."

Cessna, which sells more business jets than any other aircraft maker, this year celebrates the 25th year in production of its only remaining turboprop aircraft, the Caravan. The 2,000th off the line is scheduled to go in August to a buyer in Africa – an appropriate destination for the rugged, short-takeoff, go-anywhere aircraft.

While sales of Cessna jets have plunged from 340 in 2008 to 289 last year and an expected 225 this year, John Doman, vice-president of propeller sales, says the single-engine turboprop is bucking the trend.

"We had one of the best years last year with 95 or 96 Caravans delivered," he says. "But there are well over 100 in production for this year. That will be the highest figure ever."

The 208B Grand Caravan, the stretched version that represents 90 per cent of the models sold, sells for $1.9m typically equipped. A package that includes Citation jet levels of interior luxury, with big seats and an entertainment package, puts the price up to $2.2m.

That, with operating costs lower than for a jet, has been enough to make some flight departments ignore an unpressurised cabin and a maximum operating speed of 170-175 kts.

"We do have a market segment of corporate operators or private individuals who, because of market conditions, have reduced their fleet and added a Caravan for short routes," says Mr Doman.

Piaggio Aero Industries sells its twin-turboprop aircraft P180 Avanti II into a very different market, but it also says it is benefiting from flight departments looking to trim costs.

"Companies are choosing to add a P180 to their fleet for specific roles," says Alberto Galassi, chief executive of the Italy-based company. "They might have a Gulfstream for international routes and add a P180 for shorter trips."

They are opting for less noise, and less cost, he says. "And no one will complain about a turboprop," he adds. "Not shareholders, nor the public."

The $7.3m aircraft shares many performance figures with jets – a Mach 0.7 cruise speed, 1,500 nautical mile range and a ceiling of 41,000 ft, allowing it to fly above most weather and airline traffic. Yet, Mr Galassi says, it consumes 30-35 per cent less fuel than a similarly-sized jet.

The sleek turboprop is unique among contemporary business aircraft in having three lifting surfaces, including a canard wing at the front, and turbine engines mounted on the main wing driving pusher propellers. "You don't see the props in the cabin, you don't hear the props in the cabin," says Mr Galassi.

Production is holding up better than at many jet makers. This year's expected 25 aircraft is only five or six down on 2009.

The company's diverse ownership gives access to wider markets, too. Piaggio Aero is a third owned by India's Tata Group, a third by the Abu Dhabi government's Mubadala Development, and the rest by Ferrari and other Italian families. Three P180s are flying in India and one in Bangladesh, says Mr Galassi, while the United Arab Emirates Air Force has bought two.

Hawker Beechcraft has also been buoyed by new buyers for its turboprops. "Special-mission aircraft have been a large percentage of sales," says Sean McGeough, president of the Europe, Middle East and Africa region for Hawker.

The US Project Liberty reconnaissance and surveillance aircraft, which are based on King Airs, have been an unexpected success for Hawker. "We've been lucky having the turboprop range to buoy us through the recession," says Mr McGeough.

He also reports a number of flight departments adding turboprop aircraft to take advantage of cheaper flying. And he cites a statistic that indicates that turboprops are far from ceding the air to jets: for the past four years, the King Air 200 turboprop has been Europe's most widely used business aircraft.

Giant of Europe is braced for a bumpy ride

NetJets

Investment carries on alongside the cutbacks, says **Pilita Clark**

Eric Connor: 'By background, I'm an engineer, so I understand technical aspects and complex systems' Daniel Jones

Life has not been quite the same for Eric Connor since he was appointed head of NetJets Europe in October last year – nor for his family.

Not long after he took on the job, one of his daughters, a student and hockey player at Leeds University, was chatting to the head of the men's hockey team.

The man was intrigued to discover he was talking to the daughter of the person running Europe's biggest business jet group, says Mr Connor. "He said, 'My ambition is to be a pilot for NetJets'. And then, after about a three-second pause, he quipped: 'Will you marry me?'"

Mr Connor, a 61-year-old engineer from County Durham in the north of England, with many years in the energy business, leans back in his chair in NetJets' airy Kensington offices in central London and grins.

But much of the change at NetJets over the past year has been less entertaining, in line with the rest of the battered private jet industry.

Since October, the European arm of the fractional operator NetJets, a part of US billionaire Warren Buffett's Berkshire Hathaway empire, has lost four of its top people.

Mark Booth, chairman, and Bill Kelly, chief executive officer, both went in October. Robert Dranitzke, chief operating officer, went in January. Graeme Weston, president of marketing and sales, resigned in February.

Before then, the group laid off some 100 staff from its Lisbon operations centre and arranged for 250 pilots to take voluntary leave, leaving a full-time staff of 1,740 workers, about 1,000 of whom are pilots and crew.

> 'In some areas, cuts have led to a decrease in cost and an increase in facility, so that's been a win-win'

Though its 1,500 customers and 158 aircraft still dwarf its rivals, it has had to defer a number of deliveries to adjust to the downturn.

All this has been a sharp turnround for a company that had been riding the financial boom enjoyed by many of its wealthy clients, and placed the biggest single order for business jets in Europe in 2006, before the financial crisis struck.

When Mr Buffett delivered his annual letter to Berkshire Hathaway shareholders in February this year, he described NetJets as "the major problem for Berkshire last year".

NetJets Inc, which is 100 per cent owned by Berkshire and owns between 40 per cent and 50 per cent of NetJets Europe (the rest is held by European investors), grew into the largest corporate jet group in the US under Richard Santulli, its former owner and chief executive.

But its business operation has been, as Mr Buffett put it, "another story".

"In the 11 years that we have owned the company, it has recorded an aggregate pre-tax loss of $157m," he said, adding that its debt had soared from $102m 11 years ago to $1.9bn in April last year. In 2009 it made a "staggering" $711m loss, he said, although debt had been cut to $1.4bn, and the group was now "solidly profitable".

This was thanks to the "enormously talented" David Sokol, he said, who was plucked from the Berkshire empire's MidAmerican energy group to run NetJets in August.

Mr Connor was a top executive at MidAmerican until he became head of NetJets Europe. He has known Mr Sokol since 1996 and like his US counterpart, is expected to keep a close eye on expenditure.

"He's been given a mandate to be as ruthless as possible on costs," says an executive from a rival company. "They've said: Anything that doesn't look like a proper commercial deal, kill it'."

Mr Connor confirms that a number of cost-cutting initiatives have taken place, such as the renegotiation of airline contracts for crew travel and the re-tendering of fixed base operations.

"In some places that has resulted in a decrease in cost and an increase in facility, so that's been a win-win," he said.

Some observers say the top-level executive shake-up has created a "divisive atmosphere".

Mr Connor says market conditions meant the company had to respond. "Yes, some people left, but people always leave organisations and organisations live on."

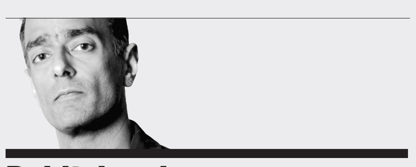
Despite the cutbacks, NetJets Europe remains committed to Frankfurt-Egelsbach airport, a popular business jet centre, in which it became an 80 per cent owner last year, announcing last month that it planned to invest €20m-€30m ($27m-$40m) in it over the next five years.

In December, it said it would invest €750m in training and safety over the next five years.

Safety is one part of the business with which Mr Connor is very familiar.

"I don't have any great knowledge of aviation other than to say I've used it a lot," he says, but adds: "I'm an engineer by background, so I understand technical aspects and complex systems. In terms of safety, I've done work in power stations, in coal mines, with underwater weapons, in nuclear installations, so I understand the importance of safety."

Mr Connor is quietly optimistic. "Generally speaking, for the first quarter of 2010 – and obviously one quarter isn't a whole financial year – the indications are quite positive."



Rohit Jaggi
FLIGHT LINES

The biggest ash disaster in the world

Private operators certainly made the best of a rather difficult job last month when the Icelandic volcano's cloud of expelled debris caused what seemed like the biggest ash disaster in the world.

Thousands of passengers were stranded, and airlines lost more than $200m a day, according to the International Air Transport Association (Iata), as northern European airspace was closed by air traffic control authorities' reaction to the wandering ash cloud. But charter companies quickly moved to fill the gap.

"From a helicopter point of view – all in visual meteorological conditions, at a maximum of 1,500 feet – the guidance from experts was that we should have no significant contamination," David McRobert, group managing director of PremiAir, the leading UK helicopter operator, says. "So, subject to owners' permission we were flying."

It was not just helicopters. UK-based Air Partner's commercial and private jet divisions were kept busy responding – and its freight arm had to set up a "volcanic crisis team" to cope with disruption caused by the six-day closure of controlled air space.

Jet operator Hangar 8, with bases around the world and its headquarters in Oxford, says bookings were up 40 per cent, and turnover during seven days of the ash crisis was the same as up to three normal weeks. Some of the jobs it took on were more vital than others. One was flying British dance music duo the Chemical Brothers to and from a concert in Milan.

'Built like a rhino': the Avro Business Jet Explorer concept from BAE Systems

Off the beaten track

BAE Systems will today at the Ebace show announce an Avro Business Jet concept that takes the phrase "off- airport operations" to a higher level.

BAE has been doing a tidy amount of business converting BAe 146 and Avro RJ regional airliners, the four-engine "whisperjet", into corporate transport. The latest was delivered last month to the Presidential Flight of Abu Dhabi, where the combination of rugged design and the ability to operate away from big airports particularly appeal.

The concept pictured above, from UK specialist Design Q, is aimed at adventure travellers. "This is the only commercial jet of this size that can offer unpaved runways performance and short takeoff and landing capability with independent ops systems," says Stewart Cordner, vice-president of ABJ. "It's built like a rhino as well!"

Projected price is in the region of $14m-$16m, but the starting price of an ABJ that uses an older airframe is much lower, at $5m-$6m.

Incidentally, the Range Rover pictured would not quite fit into an ABJ. A Land Rover with the windscreen folded flat, however, could just about squeeze in through the optional freight door, which costs about $2m to put in. A lighter, and more fun option would be a couple of motorcycles – and accommodating them would pose no problems at all.

Smell of success

Aircraft management companies are used to being given strict instructions by owners about whether would-be passengers can smoke on board. But Flight Lines heard a while ago of an owner who will not let anyone who is wearing perfume step aboard his jet. One wonders whether the tighter charter market might make the lure of money smell rather sweeter.

Tail numbers

Airports in the UK, already smarting from a fall of 10 per cent in passenger numbers last year and an overall slide in profits of 90 per cent have trimmed investment by 38 per cent for this year compared with 2008.

But there are encouraging signs. TAG Aviation, operator of Farnborough, says aircraft movements at the UK business airport were up 7.5 per cent in February this year on the previous February, and 16.9 per cent higher in March than a year before.

London Oxford Airport, which is vying for some of Farnborough's traffic, says a 12 per cent rise in business aviation movements in the year to date compares with a 12 per cent fall across the whole of Europe.

Corporate Aviation

Cessna's light jet faces stiff opposition

Flight test

The high-tech Citation CJ4 has a long heritage to live up to, says **Rohit Jaggi**

A vintage red aircraft perched high up in a large Cessna hangar at Wichita's Mid-Continent airport provides quite a contrast to the sleek and modern aircraft it watches over.

It is a reminder of the 83-year history of an aviation survivor. It is also a reminder that the Wichita, Kansas, company takes development seriously.

Two of the fruits of that development sat in the warmth of the hangar under the gaze of that little red plane on a bitterly cold day in February, examples of the Cessna Citation CJ4 used in the test programme.

It has not been an easy two years for Cessna, the flag bearer of business jets with more than 6,000 Citations made. Last year the company delivered 289 jets, and reported about $3.3bn in revenues. But that compares with 340 deliveries of jets in 2008, and a pre-downturn forecast of 525 for last year.

Cessna's response to the chill economic climate was to scale back growth plans savagely, losing about half its workforce.

Outside the hangar with the classic red plane, a large flat area not far from Cessna Boulevard bears witness to the shelving of plans to build the $27m Columbus large-cabin, long-range jet. The company did not even get as far as building on the levelled plot.

But the $9m CJ4 is a different proposition. In the middle of the Citation range of business jets, but at the top of the CJ range, it shares a common type rating with the rest of the CJs and is, like the others, certified for single-pilot operation.

That means that simple operation and easy handling are vitally important. But the CJ4 is also facing stiff opposition in its light jet class, not least from another new entrant – the Phenom 300 from Brazilian aircraft maker Embraer (*see separate flight test, right*).

Cessna opted for the new Williams FJ44-4A turbofans for its light jet, with the aim of meeting key targets on performance, efficiency and range.

As I sit at the controls of CJ4 tail number N525NG on the shorter of Mid-Continent's two parallel runways, my right hand can call on 3,600 pound-force of thrust, fully electronically controlled, from each engine.

We are 600lb below the maximum take-off weight of 16,950 lbs, but even crammed as full of fuel, people and baggage as it can be, a CJ4 needs just 3,130 feet of runway to get into the air in standard conditions.

The flatlands of Kansas, white snow contrasting with sharp shadows, recede quickly. A climb direct to its 45,000ft ceiling, again at maximum weight, would take just 28 minutes.

Grain elevators are the highest objects in this landscape, but the terrain as well as traffic warning systems on the Collins Pro Line 21 avionics suite provide ample reassurance about not bumping into anything unexpected. Multi-scan weather radar is also standard, as is the ADS-B capability that will enable safer, faster routing.

Direct routing, at the high altitude at which the Williams turbofans are most efficient, allows the CJ4 to exploit its range – about 2,000 nautical miles, even at high-speed cruise, with fuel reserves. From Wichita, that puts almost all of Canada in single-hop range. From Geneva, Baghdad is within reach without refuelling.

Cessna has given the CJ4 a swept wing, but the spoiler and speedbrake systems are similar to those on the manufacturer's much larger Sovereign. The spoilers help give the new light jet handling that is crisply precise – even sporty. The arrangement also reassures with good control at slow speed. This is an aircraft that I want to hand-fly.

Even without reaching the maximum cruising speed of 453 knots, the newest CJ does not want to slow down. Despite pulling the engines back to idle, an airframe built from aluminium alloy but as aerodynamically smooth as composite construction means the speed takes a long time to bleed away.

But extending speed brakes, flaps, then landing gear helps kill our momentum and reach our approach speed of 120ktss, followed by a gratifyingly gentle landing.

The aircraft I flew was full of test equipment, but the standard interior of CJ4s like the one delivered last month, with seats for up to eight in the passenger cabin, shows that Cessna has moved a long way from the beige, gold and overstuffed seats of some earlier Citations. The all-singing Venue entertainment system from Rockwell Collin, complete with iPhone docking stations, also debuts on the CJ4.

The aircraft shares with its CJ-series siblings a cabin that is low to the ground – making it easy to climb into.

However, that has also allowed the designers to use a simple door and fold-out steps. While that means a sensibly lightweight door, it loses out a little in the ramp presence stakes to the Phenom.

But more than 150 orders indicate that Cessna's projections for the aircraft have hit a chord with buyers, even beyond the brand loyalty that the market leader can expect.

Dynamically, too, the machine hits a key note. It takes the latest avionics and safety equipment for the sort of medium-distance journeys that are done mostly on autopilot at high altitude, and combines them with an airframe that in its handling shows its connection to the aircraft Cessna cut its teeth on.

Like the red airplane in the Wichita hanger.

Clean sweep: the wing uses features used on other jets from the same stable Blaine Fisher

ON FT.COM

See Rohit Jaggi's flight test of the Cessna Citation CJ4 on video **www.ft.com/cessna-cj4**

Flight Test Embraer Phenom 300

Alpine peaks on the moving map in front of me move down almost indecently quickly, as the Phenom 300 I am flying pierces a brilliant blue European sky, **writes Rohit Jaggi**.

Embraer's light jet, the first of which was delivered this year, has landed in its class at the same time as a newly designed rival from established business jet maker Cessna, the Citation CJ4. How they match up will have a direct effect on how quickly they end up flying off their production lines.

The 300 is big brother to the Phenom 100, but Brazil's Embraer is quick to point out that the bigger aircraft is not just a stretched version. What they do share, however, is the hopes of their manufacturer.

Embraer, the third largest commercial aircraft maker, has set its sights on becoming a "major player" in the business aviation sector by 2015 and the Phenoms are the first purpose-designed aircraft it has fielded in that category. It expects to build 120 Phenoms this year and has 600 firm orders, one third for the 300 model

The $3.75m Phenom 100 was intended as an entry level jet. The $8.14m 300 ($8.5m for the European-certified version), which can seat up to 10 including pilots, is more of "an entry level for corporate flight departments", Embraer says. But both are approved for single-pilot operation, and for both the owner-pilot is part of the market.

High off the ground, and reached by a drop-down door with steps on it like larger aircraft, the 300's cabin feels spacious and light. It has two Pratt & Whitney Canada PW535-E engines, each with 3,200 lbf of thrust, against half that from the 100's PW617F-E turbofans.

The power of the larger engines is immediately apparent as I release the brakes on the runway at Le Castellet airport in southern France. Everything not properly stowed takes a jump backwards as the Phenom 300 dashes forward with the urgency of one of the cars zooming around the neighbouring Paul Ricard car racetrack.

Seeing a rate of climb just short of 5,000ft a minute on the vertical speed indicator adds to the impression of power – best time to its ceiling of 45,000ft is 26 minutes.

Many of the 300's numbers are better than expected. Maximum range, at long-range cruise with six on board, is 1,971 nautical miles with fuel reserves. That's only a whisker short of the CJ4's top-speed range.

My destination, Friedrichshafen, is just 300nm away on the German side of Lake Constance. The Phenom's top speed of 453 knots would make short work of that, but a more normal cruise is not as fast. At 28,000ft, 85 per cent of engine power gives us M0.77 with an indicated speed of 302kts, a tailwind helping to push our ground speed up to 467kts.

Handling is solid, giving the feel of a much larger jet. The 300 is as happy for me to fly it like a bigger aircraft too, managing our progress through a very capable autopilot.

Compliant landing gear flatters my touchdown such that the line between flying and rolling down the runway on our wheels is blurred. Pilots and passengers alike will be pleased with that.

Compared with the CJ4 from established business jet maker Cessna, the 300 is cheaper, has a shorter but roomier cabin, can cruise at about the same speeds but loses out slightly on range.

Embraer, as befits its background, claims it has built a light corporate aircraft that can be pressed into jetliner-like levels of use. Time in service will tell whether it has succeeded. But, so far, the Brazilian manufacturer looks like it has a chance of hitting the numbers on its business jet strategy.

For a fuller flight test see **ft.com/corporate-aviation-2010**
For Rohit Jaggi's flight test of the Phenom 100 on video see **ft.com/phenom**

Rapid climber: the Phenom 300