



The plane markets company limited

PO Box 6753

OAKWOOD

DE21 2WP

United Kingdom

+44 1332 232 757

anthonyponton@planemarkets.com

Today's Business

Today's market for airlines, aircraft and business jet operators is highly dynamic and demands constant, expert evaluation to determine the best course for future business planning.

Here you will find regularly updated analysis and interpretations of the market in six main areas of activity. A reasonable level of coverage is provided, but this is just a small representation of the full service offered to our customers.

The current subjects covered are

- Major airlines Asia Pacific airlines strong and growing
- Mainline jets 7E7 and A330 markets
- Low cost airlines GOL outperforms Ryanair
- Regional airlines Republic Airways' rapid growth
- Regional jets Bombardier CSeries market overview
- Business jets Shifting market shares among the top manufacturers

Major airlines - Asia pacific airlines strong and growing

With all the attention that US airlines are getting because of the majors' struggle for survival and low cost airlines gaining prominence, it is interesting to take a look elsewhere and examine what is happening in the fast growing Asia Pacific region. Asia Pacific already accounts for over a quarter of the world's airline traffic and is set to become a dominant region in the foreseeable future.

A strong, rapidly growing region

Asia Pacific airlines already account for around 24% of RPKs and will grow to a dominant 32% within twenty years*... or at least on a par with North America**. Today the region has a 32% share of the widebody aircraft fleet and a 15% share of the narrowbody fleet in service, with future direction indicated by the on-order share for the region. Of current aircraft on order Asia Pacific has 38% of widebodies and 13% of narrowbodies.

The enormous potential of the Chinese market continues to be progressively realized through expansion of airlines and facilities. In addition to tremendous economic growth, the region boasts more expansive airport development than any other region, as evidenced by the 5 August 2004 opening of the new Guangzhou airport which has a capacity of 25m passenger per year (the same level of traffic handled by Sydney or Toronto in 2003) but is aimed at a capacity of 80m passengers each year by 2010 (the level handled by the world's busiest airport, Atlanta in 2003).

Airline financial performance

Whilst financial performance of airlines in the region has historically been mixed, there has been a strong recovery following the SARS crisis of 2003, and there is a trend towards profitability. The region boasts some of the most profitable major airlines in the world, for example with profit margins of around 10% at Cathay, Singapore and Qantas.

One the many notable airline performances in the region is highlighted by Qantas' recently announced record profit of \$665.9m for the year ending 30 June 2004, a remarkable achievement given strong low-fare domestic competition from Virgin Blue and the SARS affect on traffic early in the financial year. Qantas rapidly established a multi-brand strategy, with Australian Airlines providing low fare long haul services and Jetstar Airways providing low fare short to medium haul services. Contributing to results were cost and efficiency savings of \$353.4m and growth in ancillary services such as co-branded credit and charge cards.

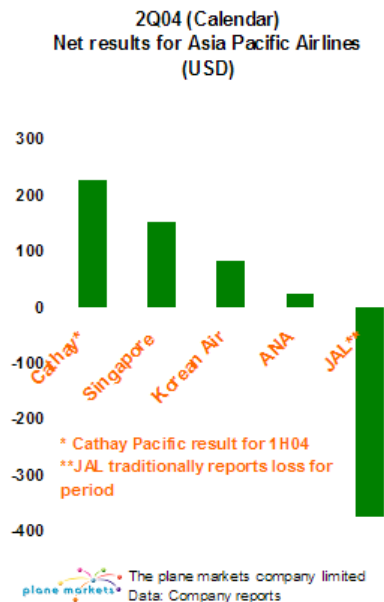
Fleet decisions

Recent fleet news from the region includes the Cathay Pacific acquisition of eight pre-owned 747-400s (four for cargo use) and Thai Airways International's decision to purchase six A380s, two more A340s and six 777s, the ANA (All Nippon Airlines) order for 50 7E7s, and Air New Zealand's order for two 7E7s.

The level of economic growth, airline financial performance and fleet growth make the region particularly demanding of focused attention and understanding for businesses planning to serve the global air transport market.

Next time: What if a US major fails?

*Rolls-Royce 2003 Outlook. **Airbus GMF 2003. Boeing does not give domicile regional traffic shares.



Mainline jets - 7E7 and A330 markets

One aspect of the market for the 7E7 is the replacement of 767 and A330 aircraft already in service or on order. This is quite a substantial portion of demand, with 1,453 of these types already in service, on order or in storage. (The assumption here is that the stored aircraft still have economic value and most will return to service. The oldest stored 767 is 22 years old. Just 2 A330s are stored.) The oldest A330 was built in 1992, is coming up to 12 years old, and will be at least 16 years old when the 7E7 enters service.

767 and A330 operators

There are 108 operators of the 767 alone, with 824 aircraft to give an average 7.6 aircraft each. Interestingly the 43 operators of the A330 alone, with 326 aircraft, also have an average 7.6 aircraft each. Sixteen airlines operate both types. They have an average 10 767s and 9 A330s for a fleet average of 19 aircraft.

There are 984 767s vs. 469 A330s - that is 110% more 767s than A330s, but the 767 has been in production twice as long. The A330 still has a large order backlog with 36% of the 469 aircraft yet to be delivered, compared to 3% for the 767. Hence the newer aircraft continues to carry respectable demand. Notably the newest variant of the 767, the 767-400, has no orders outstanding, largely due to its inferior range performance and cancellation of the planned 767-400ERX in favor of the 7E7.

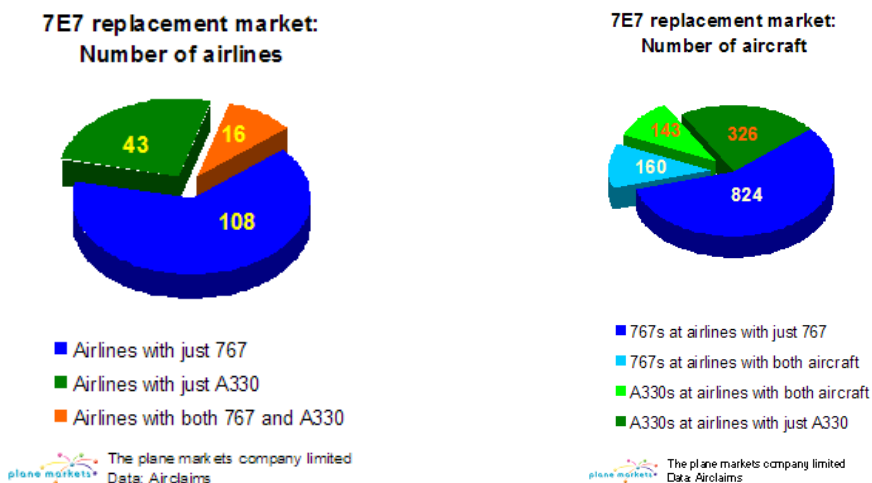
Concluding the fleet analysis, the data shows that the A330 has performed equally to the 767 at comparable stages in the life of each product.

Where does this place the 7E7 and A330?

All the 7E7 orders announced to date have been from customers that only operate the 767, and indeed this is a large pool of latent demand for the 7E7 to draw from. With the relatively low market performance of the 767 over recent years, there is plenty of interest in its successor, which will fuel early replacement orders. With 984 aircraft to replace and potential for many new routes with the much longer range of the 7E7, it is not difficult to see where Boeing's statement of airline interest in 600-odd aircraft is coming from.

The A330 also continues to perform strongly and benefits from the economic advantage of commonality across Airbus types, including cross-crew qualification and mixed fleet flying.

The 7E7 is set to create many headlines in terms of order placements, but this will not be entirely at the expense of the A330 which is continuing to perform well in the market, especially at its point in the product life cycle.



Next time: The market for the A340-600 and 777-300ER.

Low cost airlines - GOL outperforms Ryanair

It is stunning news, but for a period, the second quarter in 2004, a Brazilian airline was perhaps the most profitable airline in the world.

Brazilian low cost airline Gol has outperformed the bastion of positive airline results, Ryanair. Gol is the low cost carrier of Brazil, and in the period for April to June 2004 reported an operating margin of 24.1% compared to the Ryanair operating margin of 21.4% for the same period.*

Even on a net basis, GOL fared better than Ryanair with a net margin of 19% vs. the Ryanair net margin of 18%.

Operating philosophies

Gol has a similar operating philosophy to Ryanair, with a simple product offering and single type fleet focused on 737-700/800, but offers pre-assigned seating in contrast to the Ryanair open seating policy. Both airlines concentrate booking via the internet, with Gol achieving 74% of bookings via the internet.

In particular, Gol benefits from lower labor costs and lower en-route charges. Whilst the Ryanair aircraft utilization is not publicized, Gol's aircraft utilization increased to an incredible 13.5 hours, boosted by scheduling a large number of night flights.

Ryanair has been flying for twenty years and carried passengers 23m in 2003 at an overall load factor of 80.5% (this increased to 83% in 2Q04). In contrast GOL only began operations in 2001 and has carried over 16 million passengers since then. Its load factor in the second quarter of 2004 was 68.9%, 15% above its breakeven load factor of 54%.

Increasing market share

Gol's share of the Brazilian domestic market has risen to 22.5%. It continues to plan for growth, with international routes to be added, beginning with Buenos Aires by the end of this year.

Ryanair continues expanding its network, primarily by growing the number of routes and adding frequencies at existing bases, whilst beginning to add bases in the Eastern European countries that have just become part of the European Union (beginning with Riga in Latvia). Ryanair currently operates over 160 routes from 11 base airports in Europe.

This brief snapshot of two prominent and growing low cost airlines serves to illustrate the permanent change in the structure of the air transport industry brought by implementation of the cost efficient business model.

* Company data

More information

We keep a constant watch on this sector of the industry, and can provide further insight into the market for businesses whose outlook will be radically changed by these developments.

Next time - the rise of low cost airlines in Asia Pacific.

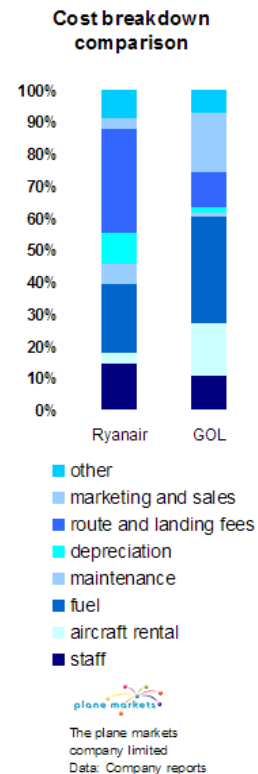
Fleet comparison: GOL vs Ryanair

Airline	Aircraft	In service	On Order	On option	Stored
GOL	737-700	17			
GOL	737-800	4	17	28	
		21	17	28	
Ryanair	737-200	13			8
Ryanair	737-800	53	102	123	
		66	102	123	8

Notes: Ryanair are retiring 737-200s plus 6 737-300s acquired from Buzz
GOL are leasing 5 737-300 for 2 years



The plane markets company limited
Data: Airclaims



Regional airlines - Republic Airways' rapid growth

This time round, the regional airlines section will look at the strategy and finances of one of the leading examples of how regional airlines constitute an important and stable portion of the air transport business.

The Republic Airways story is one of opportunism and tenacity in developing an airline that has its bases covered and has demonstrated rapid growth and a pioneering spirit that has enabled it to deliver consistent profitability at margins akin to those of the more readily valued low cost airline sector.

Republic Airways companies

Republic Airways is the Indianapolis based holding company for two airlines - Chautauqua and Republic Airlines. Chautauqua Airlines performs all current services, and Republic Airlines is the vehicle originally set up to operate Embraer 170 aircraft for US Airways. Due to airline certification delays this plan was dropped, but in a move demonstrating the flexibility typical of regional airlines, Republic instead sealed a deal to pioneer United Airlines operation of the 70 seat Embraer 170 aircraft.

Chautauqua will begin operation of the Embraer 170 in October 2004, with service to be provided for United from Washington Dulles and Chicago O'Hare airports. Republic Airlines will take over these services once its operating certificate is issued. In this role Republic will help begin to build back the capacity that United has lost from its Atlantic Coast affiliate that has become FLYi (Independence Air). (Much of the initial replacement capacity is provided by Mesa and Air Wisconsin.)

Introduction of the 70 seat Embraer 170 supplements United Airlines 70 seat services through Air Wisconsin and Skywest Airlines in the mid and western US, which use the Bombardier CRJ700.

Major airline partners

Chautauqua provides capacity to four US majors (proportion of 1H04 operating revenues in parentheses) - United (1%), Delta (36%), US Airways (44%) and American Airlines (19%). As such the risk of any one airline failing is reasonably well spread. Having made that statement, it should be noted that United, Delta and US Airways are perhaps the majors at most risk in today's market.

Republic Airways has 94 Embraer regional jets in service (operated by Chautauqua), with 63 ERJ-145, 15 ERJ-140 and 16 ERJ-135 allocated amongst its major partners broadly as follows:

Delta: 36, United: 6, US Airways: 37, American Airlines: 15

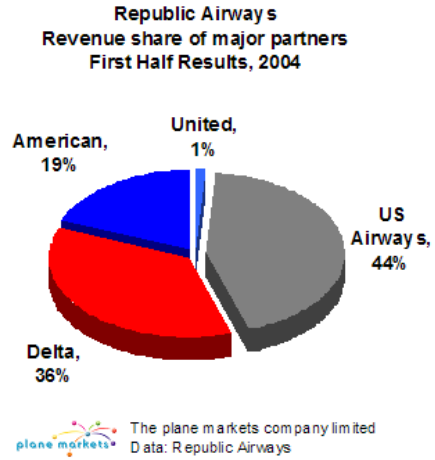
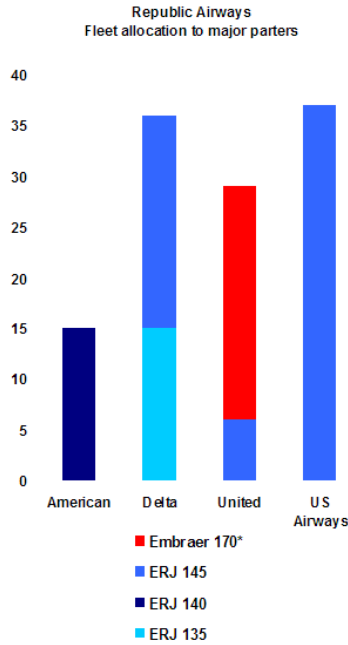
Average daily utilization of the aircraft in the second quarter 2004 was 10:47 hours (gate-gate time), higher than the utilization achieved by many airlines with their larger narrowbody aircraft.

Reflections on Republic's flexible strategy

- Delta Airlines at Orlando - Gained agreement with Delta Airlines to replace 328Jet capacity formerly provided by a division of Atlantic Coast Airlines with the higher capacity and longer range ERJ 135, thereby establishing a further major airline base of operations.
- America West - introduced America West regional service at Columbus in 2002, only to be dropped in early 2003. Benefited from a \$6m termination payment, and immediately transferred aircraft to serve Delta at Dallas and Orlando.
- American Airlines - took advantage of the pilot scope clause and desire of American to introduce competitive service using ERJ 140s from St Louis in 2002 - aircraft that replaced the ERJ 145s previously in use because reductions in the American Airlines operating fleet meant that pilot scope clause* restrictions were invoked.
- United Airlines - took advantage of the need for United to build a 50 and 70 seat operation to replace capacity previously provided by Atlantic Coast Airlines and also to meet demand for regional market growth and right-sizing capacity on routes with low traffic volumes.
- US Airways - the only non US Airways owned airline selected to operate the Embraer 170, for whom Chautauqua already operate a number of ERJ-145s. Established Republic Airlines as a vehicle to provide these services to gain best possible labor rates and comply with conditions of the US Airways jets-for-jobs agreement with its pilot unions.

The crux of the matter: financial returns

Republic has maintained consistently strong financial performance on the back of strong traffic growth and managed cost environment. Reflecting reducing yields, passenger growth of 35.4% drove revenue growth of 22%, although outstripped by cost growth of 28%. Nevertheless, Republic delivered an operating margin of 17.6% in the first half of 2004, up with the most profitable airlines in the world.



*On order, as are 12 more ERJs (allocation uncertain)

plane markets The plane markets company limited Data: Republic Airways estimates

Next time: The division between regional and major airlines - a reality or not?

* contact plane markets for an explanation of the scope clause issue

Regional jets - Bombardier CSeries market overview

A revolution is happening

There seems to be something of a revolution going on - aircraft manufacturers introducing aircraft with more space for passengers!

Following on from the A380, which provides 45% more floor space for 35% more passengers than the 747-400, there is the 7E7 which has a wider cross section than the A330/A340. At the single aisle market the Embraer 170 and 190 series have wider seats and aisle than other production regional jets, and now Bombardier has announced the CSeries with the widest seat/aisle combination yet.

The CSeries will accommodate 110 or 135 passengers (depending on the variant) with a 18.5" seat width as standard and a 23" aisle.

Product strategy

Whilst the Embraer 170 and 190 provide the perfect aircraft for growth from 50 seat regional jets, replacement of current 100 seat aircraft and new short to medium range routes, Bombardier is encroaching into the low end of Airbus and Boeing territory with their proposed new aircraft, although it is the natural route for their product development team, led by Gary Scott, a former participant in defining the 737NG family. The new family would build on a solid market base of customers for the pioneering CRJ series.

The proposed CSeries is distinguished from current competitors in that it promises the capability to economically operate both short and intercontinental services. Of current aircraft in this class, only the A318 and 737-600 offer this capability, although short haul economics for these types is unlikely to be as competitive as the CSeries, and neither are actively scheduled to utilize their range potential to an extensive degree.

A comparison of interior cabin width shows the CSeries, with standard 5 abreast seating in a 136" cabin to offer nearly the same cabin width as the 737NG (3" more at 139"), which has standard 6 abreast seating, and 10" smaller than the A318 which, with a 6 abreast standard has a cabin width of 146". The CSeries essentially offers the same seat width as the A320 family but with wider arm rests and a wider aisle.

Market demand

Bombardier quote market forecasts of between 5,000 and 6,000 for this category of aircraft over the next twenty years. (Although note that the aircraft is not anticipated in service until 2010, when six of these years have passed). Given that these figures are from credible forecast sources (manufacturers), a sanity check on them shows that they appear reasonable.

An examination of the structure of this market reveals some interesting insights. Focusing on airlines with aircraft currently configured with 100 to 145 seats should give a reasonable proxy to the market Bombardier is aiming for with this aircraft.

According to Airclaims data (July 2004), there are currently 459 airlines with 5,883 aircraft in service or on order in this market segment. 887, or 18% of the total are on firm order - which indicates that the segment is neither disappearing (in which case the proportion of aircraft on order would be lower) or rapidly growing (in which case it would be higher). However nearly 6,000 aircraft is clearly a solid base to begin with. Also the fleet is reasonably concentrated, with half (2,923) at just 16 airlines, and it so happens that 20% of the airlines really do have 80% of the fleet.

Some of these airlines have already begun fleet replacement programs with aircraft in this specific seating range. (Note that the arbitrary seating cut-off points may exclude some meaningful data, but a cut-off point has to be chosen somewhere.) However, there are 1,500 aircraft with customers that do not operate current in production aircraft within this seating band.

Airline fleet strategy

Apart from the predictable competitive response, major airline fleet strategy will play a major part in deciding the success or otherwise of the CSeries. There are around 10-12 major world airlines with 10 or more aircraft in this seating range that are only out of production types (i.e. not the A320 or 737NG families).

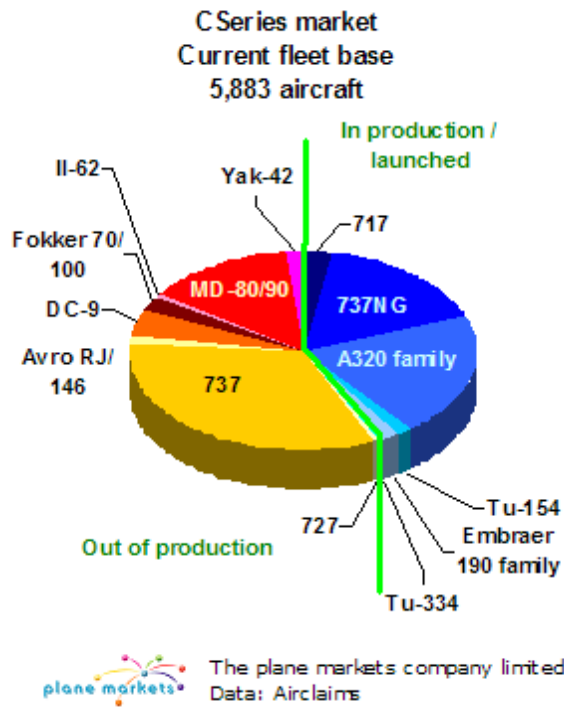
The majority of aircraft in the segment are in the 135 seat sector, with 76% of the current fleet compared to 24% in the 110 seat sector. However this will be due to some extent to a sustained period without a purpose designed aircraft in the 110 sector, so it should be expected that the 110 seat sector will gain more prominence over time.

From a fleet perspective, Northwest, Delta, Air Canada, Lufthansa and SAS are clear early candidates for this class of aircraft in the C Series timeframe (notwithstanding the Air Canada interest in around 60 Embraer 190s).

So the question becomes more of whether Bombardier will be able to steal market volume from underneath the noses of Company A and Company B, and will Company E be able to sustain the success of its new products in the adjacent 70 and 90 seat sectors.

More information

A more comprehensive evaluation of this market sector and prospects for individual aircraft types can be purchased from plane markets - simply use the communicate page to inform us of your interest. Also let us know if you'd like to receive larger, clearer versions of charts.



Next time: Will the 50 seat market be sustainable?

Business jets - Shifting market shares among the manufacturers

The current market for new business jets is worth \$9bn each year. Although the market is at around 60% of its peak in 2001, it remains relatively strong in historical terms, and is recovering. Only one year prior to 1998 saw higher deliveries than are expected this year, in contrast to the airline market which had a sustained peak around 1989.

The market share held by each of the business jet manufacturers has been in continual flux, as the rate of new product introduction underlines the demand for innovation and differentiated products.

At least ten new business jet types are being introduced in 2004. In the airline market the typical life cycle of an aircraft model in production is 15 to 20 years, whereas for a business jet, the production run of any particular model will be around 7 to 10 years, following which a major upgrade, re-branding or derivative will usually be introduced.

New types introduced in 2004:

- Bombardier: Learjet 40, Challenger 300, Global 5000
- Cessna: CJ3 Sovereign
- Gulfstream: G350, G450, G500
- Raytheon: Hawker 400XP, Horizon

Cessna, Gulfstream and Dassault Falconjet

By far the largest share of business jets is manufactured by Cessna, with 31% of the fleet in service today, and 38% of new deliveries in 2003 - although this is likely to dip to 31% in 2004, as the company recovers more slowly than its competitors, some of whom had a larger decline in 2003. The strength of Cessna's numbers arises from its concentration on entry level to medium sized aircraft, its customer base in smaller aircraft which provides a trade-up market, and its regular introduction of updated products.

Gulfstream clearly leads the current market in terms of the value of business jets delivered, with a 27% share of the value of new deliveries in 2003. Falconjet (Dassault) is second, being equal to Cessna at 19%. Despite the undisputed success of Falconjet and the almost guaranteed success of the revolutionary Falcon 7X, their near term market share will fall before the impact of these new products is felt.

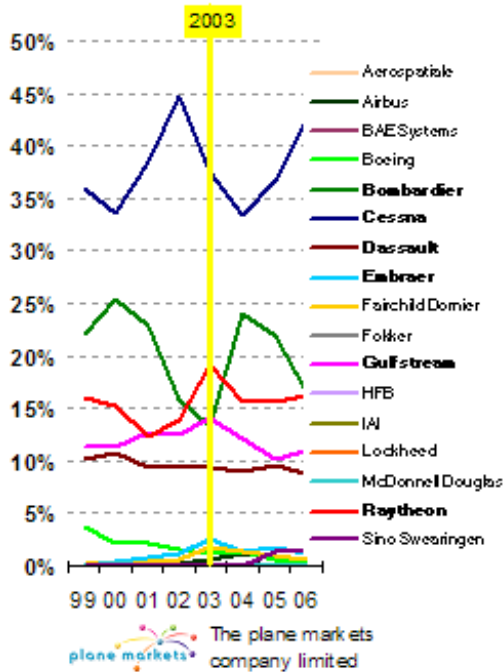
Bombardier

The Bombardier market share will recover substantially in 2004, following resumption of full production after stoppages in 2003. This will take Bombardier's share of aircraft deliveries up to 24% following a 13% share in 2003. However, for the future Gulfstream is likely to overtake Bombardier, as Gulfstream introduces the G150 (with announced orders for 100 from NetJets) whilst Bombardier faces a tough challenge in maintaining the breadth of its product line. The likely success of the Challenger 300 and the longer term development of a replacement for the Challenger 604 is unlikely to sufficiently counter the more difficult medium term market for Learjet products and the growth in product lines of competing manufacturers.

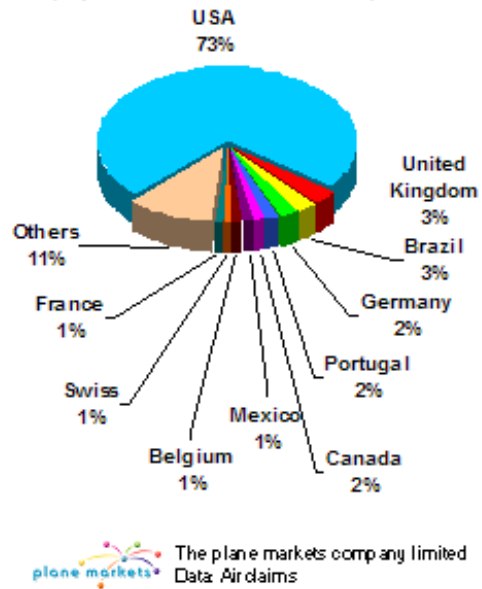
Raytheon

Raytheon is the only company that saw deliveries increase in 2003, up to 100 aircraft compared to 95 the year before. The company's strength derives from its well established types, including the Beechjet 400XP which late in 2003 and early 2004 secured orders for 70 for NetJets. However these will not carry the company for ever and the composite Premier 1 and Horizon will continue to take time to become fully accepted in the market. Hence the Raytheon share is likely to decline back to 16% in 2004 from 19% in 2003. In time, Raytheon is also likely to introduce a new medium sized product to replace the Hawker 800.

Shifting market share
(aircraft units) 1999 to 2006



Country share of 2004 new
business jet deliveries
(top 10 countries identified)



Next time: Will the pace of new aircraft introduction persist?