Corporate et Investor

The business jet market in numbers

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1.0 Executive summary

At the end of 2011 the global business jet fleet consisted of around 17,721 (Source Various) aircraft with an average age of 15.9 years (Source Bombardierⁱ)

More than 70% of the world's fleet is based in North America (Source Ascend Onlineⁱⁱ) but this is changing and the market is becoming more global.

The customer base is very diverse. In 2009 75% of US companies operate only one turbine-powered aircraft. In 1997, 37% had more than one in their fleet (Source: Harris Interactiveⁱⁱⁱ).

Dassault, for example, has a fleet of 1,935 aircraft flown by 1,120 operators^{iv}.

Bombardier estimates that more than 85% of new business jet orders originate from existing owners.

Some 672 business jets were delivered in 2012 down from 2011 when 696 were delivered and down from the high point of 990 in 2008 (Source: GAMA^v).

About 12% of global business jet fleet is traded every year, although is it dependent on the business jet cycle (Source: Amstat^{vi} and JetNet^{vii}).

Honeywell says that the market peaked in 2009, with 15% of the total fleet for saleviii.

2.0 About this report

Corporate Jet Investor's Business Jet Market in Numbers is a collection of the most recent statistics and data available on business aviation. The report is a one-stop source of information to help you find the data you need as quickly as possible.

Business Jet Market in Numbers uses a mixture of our own research combined with third party sources. We credit and acknowledge all sources with endnotes.

If you feel any of the data is inaccurate or not properly credited please email Alex Andrews, assocaite publisher or Terry Spruce, news and aircraft editor, on aandrews@corpjetinvestor.com or tspruce@corpjetinvestor.com or call +44 1737 844 383.

Please also email us if you are looking for data not covered in the report. If you want it, other members probably will too, so please let us find it for you.

Please note that we update this report regularly. Make sure you have the most current edition by going to http://www.corporatejetinvestor.com/articles/downloads

2.1 About Corporate Jet Investor

Corporate Jet Investor provides information, insight and intelligence on business jet and helicopter transactions. Our events bring the market together.

Over 18,000 professionals use the site each month making it one of the most visited specialist websites in the industry.

Our core membership includes: aircraft owners, corporate flight departments, flight departments, family offices, banks, funds, leasing companies, manufacturers, law firms, maintenance providers, consultants, aircraft operators and others in business aviation. More than one thousand people also subscribe to our weekly e-newsletter.

Members use the site to identify opportunities, find potential customers, meet recommended professionals and analyse risk. The site includes data on different aircraft, a list of upcoming deliveries, an interactive business jet finance finder, listings of recommended lawyers, expert articles and the *Official Guide to Aircraft Registration*.

Corporate Jet Investor also organises corporate jet and helicopter finance conferences and events around the world. Recent events have taken place in London, Beijing, Johannesburg and Hong Kong. We also organise specialist training courses focused on aircraft finance. So far in 2012, 100% of delegates to our events have said the events were either good or very good.

We also manage the *Corporate Jet Investor Awards* which are chosen by a committee of aircraft manufacturers and leading brokers and are given to financial institutions and transactions.

For the last three years, our events and website have helped members learn, make better decisions, build business strategies, save time, find the best transaction partners, identify risks and accelerate their careers.

For a free trial and to find out how we can help you please contact:

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3.0 The global business jet fleet

In 2011, the global business jet fleet consisted of either 15,200 aircraft (Source: Bombardier - which does not include airliners); 17,400 aircraft (Source: Ascend^{ix}) or 18,643 aircraft (Source: JetNet^x).

Amstat^{xi} estimated that the global fleet consisted of 19,642 aircraft in October 2012.

The growth of the global business jet fleet

Year	1960	1970	1980	1990	2000	2010	2011
Global business jet fleet	15	1205	3,920	6,492	9,895	16,870	17,394

(Source: Ascend¹)

The composition of the global business jet fleet in October 2012

All business jets	19,642
Heavy jets	4,915
Medium jets	6,987
Light jets	7,740

(Source: Amstatxii)

3.1 Owners and operators

In 2009, in the US, 75% of companies in possession aircraft operated only one turbine-powered aircraft. In 1997, 37% had more than one in their fleet (Source: Harris Interactive^{xiii})

Dassault has a fleet of 1,935 aircraft flown by 1,120 operators^{xiv}. Bombardier estimates that more than 85% of new business jet orders originate from existing owners.

3.2 The age of the global jet fleet

In December 2012, the average age of the worldwide business jet fleet was 15.9 years, with 60% of the fleet at less than 15 years old (Source: Bombardier^{xv} and JETNET²).

Around 200 aircraft are more than 40 year's old (Source: Bombardier).

7

Only 7% of all delivered business jets have been retired (Source: Bombardier). Light jets have the oldest average age (20.6 years) followed by mid-size jets (17.6 years) and small-mid-size jets (16.6 years).

3.3 Geographic spread

The US dominates the business jet market with more than 65% of the world's fleet. However, the fleet is getting more international –in 2000, the US counted for 75% (Source: Ascend Online).

Top 15 business aviation fleets by country

	Country	Number of business jets
1	USA	11082
2	Mexico	695
3	Brazil	638
4	Canada	486
5	Germany	410
6	United Kingdom	408
7	Austria	239
8	Portugal	172
9	Switzerland	172
10	France	161
11	South Africa	161
12	Venezuela	156
13	Australia	155
14	Italy	139
15	Argentina	132

(Source: Ascend Online)

Business jets to population

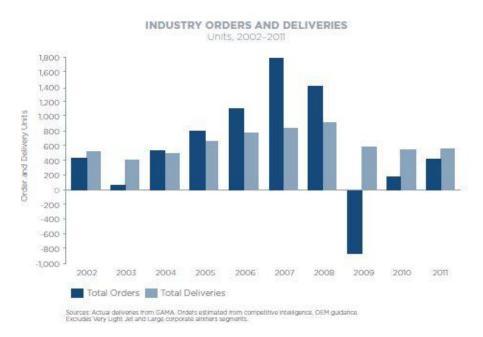
Country	Number of people to every business jet
US	27,000
Canada	70,000
Mexico	166,000
Germany	200,000
Brazil	300,000
Malaysia	1.8 million
Nigeria	3.7 million
India	9.1 million
China	11.8 million

(Source: Ascend/Corporate Jet Investor)

4.0 Orders and deliveries

Bombardier estimates there were net orders for 180 business jets in 2010 and 423 in 2011. In 2008, fractional operators and branded charter operator orders represented between 20%-30% of all orders. However, many of these were cancelled in 2009.

Fractional operators are expected to account for approximately 10% of business jet deliveries over the next 20 years (Source: Bombardier).



(Source: Bombardier)

Deliveries by region

Deliveries by region	1980-1990	1990-2000	2000-2010
North America	2733	3199	5589
Latin America and Caribbean	190	343	697
Africa	76	82	160
Middle East	100	67	219
India	3	4	81
China	15	8	63
Asia (including India and China)	56	124	323
Oceania / Australasia	52	21	80
Europe (including Russia and CIS)	412	551	1817
Russia	0	4	33
Unknown	-	22	102

(Source: Ascend Worldwide Online Fleets^{xvi})

Business jet deliveries (\$ million) 2002-2011

2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
9.6	7.8	9.8	12.3	14.9	17.6	20.1	15.2	15.9	15.5

(Source: Bombardier^{xvii} Excludes very light jets and corporate airliners)

Total number of business jets delivered

	2007	2008	2009	2010	2011	2012
Airbus	12	9	11	13	9	9
Boeing	7	6	4	10	8	12
Bombardier	224	245	173	150	182	179
Cessna	388	466	289	178	183	181
Dassault	70	72	77	95	63	66
Embraer	36	38	122	145	99	99
Gulfstream	138	156	94	99	107	94
Hawker	182	160	98	73	30	32
Total	1037	1152	868	763	681	672

(Source: GAMA^{xviii})

Market share by number of aircraft delivered

	2007	2008	2009	2010	2011	2012
Airbus	1%	1%	1%	2%	1%	1%
Boeing	1%	1%	1%	1%	1%	1%
Bombardier	19%	21%	20%	20%	27%	27%
Cessna	41%	40%	33%	23%	27%	27%
Dassault	4%	6%	9%	12%	9%	10%
Embraer	4%	3%	14%	19%	15%	15%
Gulfstream	16%	14%	11%	13%	16%	14%
Hawker	14%	14%	11%	10%	4%	5%

(Source: Source: GAMA^{xix} and Corporate Jet Investor)

4.1 Deliveries by manufacturer

Airbus

	2007	2008	2009	2010	2011	2012
ACJ318 Elite	0	0	0	2	2	2
ACJ319	0	0	0	8	6	6
ACJ320 Prestige	0	0	0	3	1	0
ACJ	12	9	11	0	0	1
Total	12	19	11	13	9	9

(Source: GAMA^{xx})

Boeing

	2007	2008	2009	2010	2011	2012
BBJ	7	3	3	4	8	2
BBJ2	0	1	0	2	0	2
BBJ3	0	2	1	4	0	0
747-8 VIP	0	0	0	0	0	8
Total	7	6	4	10	8	12

(Source: GAMA^{xxi})

Bombardier

Dombarator						
	2007	2008	2009	2010	2011	2012
Global 5000	46	51	51	49	53	54
Challenger 300	51	59	33	29	37	48
Challenger 604/605	35	44	36	38	43	34
CL 850/870/890	12	17	7	6	6	4
Learjet 40/45/XR	12	17	7	6	6	24
Learjet 60	23	26	13	12	19	15
Total	179	214	137	140	164	179

(Source: GAMA^{xxii})

Cessna

	2007	2008	2009	2010	2011	2012
525 Citation CJ1+	34	20	14	3	2	0
525A Citation CJ2/CJ2+	44	56	21	17	15	19
525B Citation CJ3	78	88	40	20	22	21
525C Citation CJ4	0	0	0	19	48	44
750 Citation X	17	16	7	3	3	6
510 Citation Mustang	45	101	125	73	43	38
680 Citation Sovereign	65	77	33	16	19	22
560 Citation XLS/XLS+	82	80	44	22	27	31
C560 Citation Encore+	12	28	5	5	4	0
Total	388	466	289	178	183	181

(Source: GAMA^{xxiii})

Dassault

	2007	2008	2009	2010	2011	2012
Falcon 7X	6	21	32	41	31	37
Falcon 50EX	2	1	0	0	0	0
Falcon 2000/2000DX	1	3	1	0	0	0
Falcon 2000EX EASy	33	24	3	0	0	0
Falcon 2000LX	0	0	23	30	20	22
Falcon 900DX	10	4	1	3	0	0
Falcon 900EX EASy	18	19	17	17	1	0
Falcon 900LX	0	0	0	4	11	7
Total	70	72	77	95	63	66

(Source: GAMA^{xxiv})

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	2007	2008	2009	2010	2010	2012
Phenom 100	0	2	97	100	41	29
Phenom 300	0	0	1	26	42	48
Lineage 1000 /E190 Head of State	0	0	5	5	3	2
Legacy 600/650	36	36	18	11	13	17
Shuttles (ERJs and E-Jets)	0	0	1	3	0	3
Total	36	38	122	145	99	99
(Source: GAMA ^{xxv})						

Gulfstream

4.0-9-01-0-01-0						
	2007	2008	2009	2010	2011	2012
Gulfstream 150/200/280	59	68	19	24	17	11
Gulfstream 350/450/500/550	7 9	88	75	75	78	77
Gulfstream 650	0	0	0	0	0	6
Total	138	156	94	99	95	94

(Source: GAMA^{xxvi})

Hawker Beechcraft

	2007	2008	2009	2010	2011	2012
Premier I/IA	54	31	16	11	5	3
Hawker 400XP	41	35	11	12	1	0
Hawker 750	0	23	13	5	5	0
Hawker 800XP/850XP	35	15	3	1	1	0
Hawker 900XP	32	50	3	28	11	17
Hawker 4000	0	0	20	16	7	12
Total	162	160	98	73	30	3

(Source: GAMA^{xxvii})

5.0 The pre-owned market

On average, the 11.6% of the global business jet fleet is traded every year, although is it dependent on the business jet cycle (Source: Amstat^{xxviii}).

JetNet estimates on average some 12.6% of the fleet is for sale at one time and that 13% of the world business jet fleet was for sale in October 2012. Honeywell says that the market peaked in 2009, with 15% of the total fleet for sale xxix.

Aircraft transactions

		Q3 2012		20 year average	Difference
	Global fleet	No of transactions	% of fleet	% of fleet changing per quarter	
Business jets		473	2.4%	2.9%	-0.5%
Heavy jets		105	2.1%	2.3%	-0.2%
Medium jets		171	2.4%	2.8%	-0.3%
Light jets		197	2.5%	3.3%	0.7%

(Source: Amstat^{xxx})

Aircraft for sale

		Q3 2012		20 year average	Difference
	Global fleet	No of aircraft for sale	% of fleet for sale	% of fleet for sale	
Business jets	19,642	2,632	13.4%	12.6%	0.8%
Heavy jets	4,915	584	11.9%	10.1%	1.8%
Medium jets	6,987	876	12.5%	12.2%	0.3%
Light jets	7,740	1,172	15.2%	14.2%	1.0%

(Source: Amstat^{xxxi})

Asking prices (\$)

	Oct 2012	July 2012	Oct 2011
Heavy jets	13,397,899	13,155,904	13,397,899
Medium jets	4,345,294	4,286,808	4,222,984
Light jets	1,732,989	1,730,129	1,793,052

(Source: Amstat^{xxxii})

6.0 Aircraft utilisation and charter

6.1 The US

US Business jet traffic

	Tota	ıl	Dome	estic	Internat	tional
	Operations	Change	Operations	Change	Operations	Change
2001	3,826,564		3,432,176		394,388	
2002	4,198,012	9.71%	3,769,630	9.83%	428,382	8.62%
2003	4,285,420	2.08%	3,804,224	0.92%	481,196	12.33%
2004	4,606,122	7.48%	4,092,010	7.56%	514,112	6.84%
2005	4,727,826	2.64%	4,191,692	2.44%	536,134	4.28%
2006	4,745,746	0.38%	4,166,506	-0.60%	579,240	8.04%
2007	4,824,960	1.67%	4,180,510	0.34%	644,450	11.26%
2008	4,291,104	-11.06%	3,681,606	-11.93%	609,498	-5.42%
2009	3,449,204	-19.62%	2,929,476	-20.43%	519,728	-14.73%
2010	3,842,314	11.40%	3,212,132	9.65%	630,182	21.25%
2011	3,955,400	2.94%	3,323,596	3.47%	631,804	0.26%
2012	2,977,968*		2,480,290		497,678	

^{*}Year to date (October 2012) (Source: FAAxxxiii)

Flights by operator type

of flights
%
%
%
,,

(Source: Avinodexxxiv)

The top 15 business airports in the US

Rank	Airport	State
1	Van Nuys (VNY)	California
2	Daytona Beach International	Florida
3	Centennial (APA)	Colorado
4	Phoenix Deer Valley (DVT)	Arizona
5	Fort Lauderdale Executive (FXE)	Florida
6	Long Beach Daugherty Field (LGB)	California
7	DeKalb-Peachtree (PDK)	Georgia
8	Kendall-Tamiami Executive (TMB)	Florida
9	Montgomery Field (MYF)	California
10	Westchester County (HPN)	New York
11	Boeing Field/King County International (BFI)	Washington
12	Teterboro (TEB)	New Jersey
13	Falcon Field (FFZ)	Arizona
14	John Wayne Orange County (SNA)	California
15	Melbourne International (MLB)	Florida

(Source: NBAA)

6.2 Europe

European business aviation departure by country

Country	Business jet departures
Germany	14.27%
France	17.38%
Other	33.32%
Spain	5.4%
Switzerland	6.68%
Italy	10.10%
UK	12.86%

(Source: Eurocontrol)

Eurocontrol^{xxxv} says that larger aircraft with 19 seats fly the most. The top three of these types are the Falcon 2000, Challenger 600 and Falcon 900 all with more than 70 departures every day. Gulfstream GVs has 60 departures every a day in 2011.

The fastest growing group was the 10 seater jets particularly the Cessna Citation Excel, the most used aircraft in Europe with 150 departures each day (Source Eurocontrol**xxvi*)

7.0 Market forecasts

Business jet deliveries for 2012 are expected to be comparable to 2011, just under 600 aircraft. Deliveries are expected to accelerate in 2013 and we forecast that the industry will surpass the 2008 delivery peak, as early as 2016.

Aircraft and value 2012-2031

	2002-2011	2012-2021	2022-2031	2022-2031
Aircraft	6,300	9,800	14,200	24,000
Value (\$ billions)	139	266	382	648

(Source: Bombardier Business Aircraft Market Forecast 2012-2022)

Number of aircraft by region

	2012-2021	2022-2031
North America	4,100	5,400
Europe	1,700	1,300
China	1000	1,420
Latin America	985	1,300
Russia & CIS	525	1,025
Middle East	410	775
India	385	960
Asia Pacific	370	615
Africa	325	485

(Source: Bombardier Business Aircraft Market Forecast 2012-2022)

7.2 Honeywell forecastxxxviii

10,000 business jets are expected to be delivered over the next 10 years, worth approximately \$250 billion. Large jets will account for nearly 70% of all jet expenditures and 40% of all aircraft delivered. The BRIC countries will drive regional demand for aircraft, with 46% of operators planning to buy aircraft in the next two years. (Source: Honeywell)

7.3 JETNET Forecastxxxix

JetNet forecasts that manufacturers will deliver 10,424 aircraft between 2012 and 2021.

It says there the global fleet consisted of 18,643 aircraft at the end of 2011 and that 2,256 will be retired before 2021. That would leave a global fleet of 26,811 aircraft – 44% growth.

7.4 TEAL Group Forecast

Teal forecasts production of 13,879 aircraft worth some \$310 billion during the next 10 years. This

includes 10,249 traditional business jets worth \$249 billion, 568 corporate versions of jetliners and regional jets worth a combined total of \$42 billion, and 3,062 business turboprops worth a total of \$19 billion

7.5 FAA Business Traffic Forecast

The FAA estimates that the US business jet fleet will grow at 4% each year between 2012 and 2032. It expects the hours flown by business jets will increase by an average annual rate of 5.3% in the same period.

7.6 Avinode traffic forecast

Avinode forecasts a 0.1% decrease in business jet activity in 2013. Europe is expected to see a 3.2% overall decrease^{xli}.

Avinode traffic forecast

nymoue a ajjie joi ceast					
	US	Europe			
Entry Level Jets	+4.4%	+0.3%			
Light Jets:	-2.2%	-8.0%			
Super Light Jets:	+1.6%	+0.4%			
Midsize Jets:	+0.1%	-2.2%			
Super Midsize Jets	+0.3%	-9.1%			
Heavy Jets	-1.7%	-5.3%			
Ultra Long Range Jets:	+2.4%	+8.3%			

(Source: Avinode Business Intelligence xlii)

7.7 Combined fleet forecast

Comparing all four fleet forecasts is difficult as they do not all cover exactly the same markets – Bombardier only forecasts the market segments were it has aircraft so does not included corporate airliners or light jets). Despite this they are all similar.

Combined business jet forecasts

2012-2021	Aircraft	Value (\$ billion)
Bombardier	9,800	266
Honeywell	10,000	250
TEAL Group	10,249	249
JETNET	10,424	253
Corporate Jet Investor Forecast Average	10,118	254.5

8.0 Safety and insurance

Although much general aviation insurance is placed through Lloyds of London, it is a very specialised market. Just 3% of Lloyd's business is aviation and this includes airlines, airports and small aircraft. Cars account for 5% and marine for 7%.

On average the industry suffers between 15 and 20 total losses – where aircraft are written off each year (source: Ascend Online). This includes losses caused by non-aviation activities such as natural disasters.

Annual number of total losses

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Jets	14	18	19	23	20	24	22	9	22	11
Turboprops	17	26	28	27	26	27	31	30	25	34

(Source: Ascend Online)

8.1 Accidents in the US

The NBAA says one measure of the industry's safety record can be found in the accident data made available each year by the National Transportation Safety Board (NTSB).

The NBAA shows how the data is divided into two categories – "corporate" and "business" operations, which are designations that mostly relates to crew requirements and are not related to the type of business involved.

For these types of operations, the accident rate in 2010 was 0.07 per 100,000 hours – which is better than that of the scheduled air carriers (0.016 per 100,000 hours). For flights conducted under the "business" category, in which a two-person professional crew is not required, the NTSB's accident rate was 0.79 per 100,000 hours.

Year Aviation 1 Total/Fatal Aviation 2 Total/Fatal 1 Total/Fatal 1 Total/Fatal 1 Total/Fatal 1 Total/Fatal 1 Total/Fatal 2 Corporate/ Aviation 2 Total/Fatal 1 2.67/0.84 0.942/0.300 0.146/0.032 0.210/0.080 2.17/0.68 Air Carriers 2 Total/Fatal 1 Total/Fatal 2 Corporate/ Executive 5 Total/Fatal 1 Total/Fatal 2 Corporate/ Total/Fatal		Aircra	aft Accident R	ates, 1990–2011	(per 100,000 f	light hours) ¹	
Total/Fatal Total/Fatal Total/Fatal Total/Fatal 1992 8.51/1.81 2.67/0.84 0.942/0.300 0.146/0.032 0.210/0.080 2.17/0.68 1993 9.03/1.74 2.97/0.82 0.606/0.152 0.181/0.008 0.230/0.070 2.02/0.52 1994 9.08/1.81 3.45/1.05 0.359/0.108 0.168/0.030 0.180/0.070 1.81/0.51 1995 8.21/1.63 3.02/0.97 0.457/0.076 0.267/0.022 0.250/0.110 2.04/0.67 1996 7.65/1.45 2.80/0.90 0.399/0.036 0.269/0.036 0.140/0.060 1.68/0.34 1997 7.17/1.36 2.65/0.48 1.628 / 0.509 * 0.309/0.025 0.230/0.060 1.41/0.39 1998 7.43/1.41 2.03/0.45 2.262/0.000 0.297/0.006 0.091/0.000 1.14/0.30 1999 6.50/1.16 2.31/0.37 3.793/1.459 0.291/0.011 0.182/0.099 1.41/0.40 2000 6.57/1.21 2.04/0.56 3.247/0.271 0.306/0.016 0.125/0.060 1.28/0.37 200	Year	General	Air Taxi ³		Airlines ⁵		Business ⁷
1992 8.51/1.81 2.67/0.84 0.942/0.300 0.146/0.032 0.210/0.080 2.17/0.68 1993 9.03/1.74 2.97/0.82 0.606/0.152 0.181/0.008 0.230/0.070 2.02/0.52 1994 9.08/1.81 3.45/1.05 0.359/0.108 0.168/0.030 0.180/0.070 1.81/0.51 1995 8.21/1.63 3.02/0.97 0.457/0.076 0.267/0.022 0.250/0.110 2.04/0.67 1996 7.65/1.45 2.80/0.90 0.399/0.036 0.269/0.036 0.140/0.060 1.68/0.34 1997 7.17/1.36 2.65/0.48 1.628 / 0.509 8 0.309/0.025 0.230/0.060 1.41/0.39 1998 7.43/1.41 2.03/0.45 2.262/0.000 0.297/0.006 0.091/0.000 1.14/0.30 1999 6.50/1.16 2.31/0.37 3.793/1.459 0.291/0.011 0.182/0.099 1.41/0.40 2000 6.57/1.21 2.04/0.56 3.247/0.271 0.306/0.016 0.125/0.060 1.28/0.37 2001 6.69/1.33 2.06/0.62 2.559/0.000 0.237/0.000 0.11		Aviation ¹	Total/Fatal	Air Carriers 4	Total/Fatal	Executive ⁶	Total/Fatal
1993 9.03/1.74 2.97/0.82 0.606/0.152 0.181/0.008 0.230/0.070 2.02/0.52 1994 9.08/1.81 3.45/1.05 0.359/0.108 0.168/0.030 0.180/0.070 1.81/0.51 1995 8.21/1.63 3.02/0.97 0.457/0.076 0.267/0.022 0.250/0.110 2.04/0.67 1996 7.65/1.45 2.80/0.90 0.399/0.036 0.269/0.036 0.140/0.060 1.68/0.34 1997 7.17/1.36 2.65/0.48 1.628 / 0.509 8 0.309/0.025 0.230/0.060 1.41/0.39 1998 7.43/1.41 2.03/0.45 2.262/0.000 0.297/0.006 0.091/0.000 1.14/0.30 1999 6.50/1.16 2.31/0.37 3.793/1.459 0.291/0.011 0.182/0.099 1.41/0.40 2000 6.57/1.21 2.04/0.56 3.247/0.271 0.306/0.016 0.125/0.060 1.28/0.37 2001 6.78/1.27 2.40/0.60 2.330/0.666 0.236/0.011 0.108/0.031 1.06/0.23 2003 6.68/1.34 2.49/0.61 0.627/0.313 0.309/0.011 0.02		Total/Fatal		Total/Fatal		Total/Fatal	
1994 9.08/1.81 3.45/1.05 0.359/0.108 0.168/0.030 0.180/0.070 1.81/0.51 1995 8.21/1.63 3.02/0.97 0.457/0.076 0.267/0.022 0.250/0.110 2.04/0.67 1996 7.65/1.45 2.80/0.90 0.399/0.036 0.269/0.036 0.140/0.060 1.68/0.34 1997 7.17/1.36 2.65/0.48 1.628 / 0.509 ⁸ 0.309/0.025 0.230/0.060 1.41/0.39 1998 7.43/1.41 2.03/0.45 2.262/0.000 0.297/0.006 0.091/0.000 1.14/0.30 1999 6.50/1.16 2.31/0.37 3.793/1.459 0.291/0.011 0.182/0.099 1.41/0.40 2000 6.57/1.21 2.04/0.56 3.247/0.271 0.306/0.016 0.125/0.060 1.28/0.37 2001 6.78/1.27 2.40/0.60 2.330/0.666 0.236/0.011 0.108/0.031 1.06/0.23 2002 6.69/1.33 2.06/0.62 2.559/0.000 0.237/0.000 0.116/0.029 1.08/0.36 2003 6.68/1.34 2.49/0.61 0.627/0.313 0.309/0.011 0.0	1992	8.51/1.81	2.67/0.84	0.942/0.300	0.146/0.032	0.210/0.080	2.17/0.68
1994 9.08/1.81 3.45/1.05 0.359/0.108 0.168/0.030 0.180/0.070 1.81/0.51 1995 8.21/1.63 3.02/0.97 0.457/0.076 0.267/0.022 0.250/0.110 2.04/0.67 1996 7.65/1.45 2.80/0.90 0.399/0.036 0.269/0.036 0.140/0.060 1.68/0.34 1997 7.17/1.36 2.65/0.48 1.628 / 0.509 ⁸ 0.309/0.025 0.230/0.060 1.41/0.39 1998 7.43/1.41 2.03/0.45 2.262/0.000 0.297/0.006 0.091/0.000 1.14/0.30 1999 6.50/1.16 2.31/0.37 3.793/1.459 0.291/0.011 0.182/0.099 1.41/0.40 2000 6.57/1.21 2.04/0.56 3.247/0.271 0.306/0.016 0.125/0.060 1.28/0.37 2001 6.78/1.27 2.40/0.60 2.330/0.666 0.236/0.011 0.108/0.031 1.06/0.23 2002 6.69/1.33 2.06/0.62 2.559/0.000 0.237/0.000 0.116/0.029 1.08/0.36 2003 6.68/1.34 2.49/0.61 0.627/0.313 0.309/0.011 0.0							
1995 8.21/1.63 3.02/0.97 0.457/0.076 0.267/0.022 0.250/0.110 2.04/0.67 1996 7.65/1.45 2.80/0.90 0.399/0.036 0.269/0.036 0.140/0.060 1.68/0.34 1997 7.17/1.36 2.65/0.48 1.628/0.509 * 0.309/0.025 0.230/0.060 1.41/0.39 1998 7.43/1.41 2.03/0.45 2.262/0.000 0.297/0.006 0.091/0.000 1.14/0.30 1999 6.50/1.16 2.31/0.37 3.793/1.459 0.291/0.011 0.182/0.099 1.41/0.40 2000 6.57/1.21 2.04/0.56 3.247/0.271 0.306/0.016 0.125/0.060 1.28/0.37 2001 6.78/1.27 2.40/0.60 2.330/0.666 0.236/0.011 0.108/0.031 1.06/0.23 2002 6.69/1.33 2.06/0.62 2.559/0.000 0.237/0.000 0.116/0.029 1.08/0.36 2003 6.68/1.34 2.49/0.61 0.627/0.313 0.309/0.011 0.028/0.014 0.95/0.26 2004 6.49/1.26 2.04/0.71 1.324/0.000 0.159/0.011 0.093/	1993	9.03/1.74	2.97/0.82	0.606/0.152	0.181/0.008	0.230/0.070	2.02/0.52
1995 8.21/1.63 3.02/0.97 0.457/0.076 0.267/0.022 0.250/0.110 2.04/0.67 1996 7.65/1.45 2.80/0.90 0.399/0.036 0.269/0.036 0.140/0.060 1.68/0.34 1997 7.17/1.36 2.65/0.48 1.628/0.509 * 0.309/0.025 0.230/0.060 1.41/0.39 1998 7.43/1.41 2.03/0.45 2.262/0.000 0.297/0.006 0.091/0.000 1.14/0.30 1999 6.50/1.16 2.31/0.37 3.793/1.459 0.291/0.011 0.182/0.099 1.41/0.40 2000 6.57/1.21 2.04/0.56 3.247/0.271 0.306/0.016 0.125/0.060 1.28/0.37 2001 6.78/1.27 2.40/0.60 2.330/0.666 0.236/0.011 0.108/0.031 1.06/0.23 2002 6.69/1.33 2.06/0.62 2.559/0.000 0.237/0.000 0.116/0.029 1.08/0.36 2003 6.68/1.34 2.49/0.61 0.627/0.313 0.309/0.011 0.028/0.014 0.95/0.26 2004 6.49/1.26 2.04/0.71 1.324/0.000 0.159/0.011 0.093/							
1996 7.65/1.45 2.80/0.90 0.399/0.036 0.269/0.036 0.140/0.060 1.68/0.34 1997 7.17/1.36 2.65/0.48 1.628 / 0.509 8 0.309/0.025 0.230/0.060 1.41/0.39 1998 7.43/1.41 2.03/0.45 2.262/0.000 0.297/0.006 0.091/0.000 1.14/0.30 1999 6.50/1.16 2.31/0.37 3.793/1.459 0.291/0.011 0.182/0.099 1.41/0.40 2000 6.57/1.21 2.04/0.56 3.247/0.271 0.306/0.016 0.125/0.060 1.28/0.37 2001 6.78/1.27 2.40/0.60 2.330/0.666 0.236/0.011 0.108/0.031 1.06/0.23 2002 6.69/1.33 2.06/0.62 2.559/0.000 0.237/0.000 0.116/0.029 1.08/0.36 2004 6.49/1.26 2.04/0.71 1.324/0.000 0.159/0.011 0.093/0.013 0.91/0.23 2005 7.20/1.38 1.70/0.29 2.002/0.000 0.206/0.015 0.076/0.013 0.73/0.14 2006 6.35/1.28 1.39/0.27 0.995/0.332 0.171/0.010 0.14	1994	9.08/1.81	3.45/1.05	0.359/0.108	0.168/0.030	0.180/0.070	1.81/0.51
1996 7.65/1.45 2.80/0.90 0.399/0.036 0.269/0.036 0.140/0.060 1.68/0.34 1997 7.17/1.36 2.65/0.48 1.628 / 0.509 8 0.309/0.025 0.230/0.060 1.41/0.39 1998 7.43/1.41 2.03/0.45 2.262/0.000 0.297/0.006 0.091/0.000 1.14/0.30 1999 6.50/1.16 2.31/0.37 3.793/1.459 0.291/0.011 0.182/0.099 1.41/0.40 2000 6.57/1.21 2.04/0.56 3.247/0.271 0.306/0.016 0.125/0.060 1.28/0.37 2001 6.78/1.27 2.40/0.60 2.330/0.666 0.236/0.011 0.108/0.031 1.06/0.23 2002 6.69/1.33 2.06/0.62 2.559/0.000 0.237/0.000 0.116/0.029 1.08/0.36 2004 6.49/1.26 2.04/0.71 1.324/0.000 0.159/0.011 0.093/0.013 0.91/0.23 2005 7.20/1.38 1.70/0.29 2.002/0.000 0.206/0.015 0.076/0.013 0.73/0.14 2006 6.35/1.28 1.39/0.27 0.995/0.332 0.171/0.010 0.14							
1997 7.17/1.36 2.65/0.48 1.628 / 0.509 8 0.309/0.025 0.230/0.060 1.41/0.39 1998 7.43/1.41 2.03/0.45 2.262/0.000 0.297/0.006 0.091/0.000 1.14/0.30 1999 6.50/1.16 2.31/0.37 3.793/1.459 0.291/0.011 0.182/0.099 1.41/0.40 2000 6.57/1.21 2.04/0.56 3.247/0.271 0.306/0.016 0.125/0.060 1.28/0.37 2001 6.78/1.27 2.40/0.60 2.330/0.666 0.236/0.011 0.108/0.031 1.06/0.23 2002 6.69/1.33 2.06/0.62 2.559/0.000 0.237/0.000 0.116/0.029 1.08/0.36 2003 6.68/1.34 2.49/0.61 0.627/0.313 0.309/0.011 0.028/0.014 0.95/0.26 2004 6.49/1.26 2.04/0.71 1.324/0.000 0.159/0.011 0.093/0.013 0.91/0.23 2005 7.20/1.38 1.70/0.29 2.002/0.000 0.206/0.015 0.076/0.013 0.73/0.14 2006 6.35/1.28 1.39/0.27 0.995/0.332 0.171/0.010 0.14	1995	8.21/1.63	3.02/0.97	0.457/0.076	0.267/0.022	0.250/0.110	2.04/0.67
1997 7.17/1.36 2.65/0.48 1.628 / 0.509 8 0.309/0.025 0.230/0.060 1.41/0.39 1998 7.43/1.41 2.03/0.45 2.262/0.000 0.297/0.006 0.091/0.000 1.14/0.30 1999 6.50/1.16 2.31/0.37 3.793/1.459 0.291/0.011 0.182/0.099 1.41/0.40 2000 6.57/1.21 2.04/0.56 3.247/0.271 0.306/0.016 0.125/0.060 1.28/0.37 2001 6.78/1.27 2.40/0.60 2.330/0.666 0.236/0.011 0.108/0.031 1.06/0.23 2002 6.69/1.33 2.06/0.62 2.559/0.000 0.237/0.000 0.116/0.029 1.08/0.36 2003 6.68/1.34 2.49/0.61 0.627/0.313 0.309/0.011 0.028/0.014 0.95/0.26 2004 6.49/1.26 2.04/0.71 1.324/0.000 0.159/0.011 0.093/0.013 0.91/0.23 2005 7.20/1.38 1.70/0.29 2.002/0.000 0.206/0.015 0.076/0.013 0.73/0.14 2006 6.35/1.28 1.39/0.27 0.995/0.332 0.171/0.010 0.14							
1998 7.43/1.41 2.03/0.45 2.262/0.000 0.297/0.006 0.091/0.000 1.14/0.30 1999 6.50/1.16 2.31/0.37 3.793/1.459 0.291/0.011 0.182/0.099 1.41/0.40 2000 6.57/1.21 2.04/0.56 3.247/0.271 0.306/0.016 0.125/0.060 1.28/0.37 2001 6.78/1.27 2.40/0.60 2.330/0.666 0.236/0.011 0.108/0.031 1.06/0.23 2002 6.69/1.33 2.06/0.62 2.559/0.000 0.237/0.000 0.116/0.029 1.08/0.36 2003 6.68/1.34 2.49/0.61 0.627/0.313 0.309/0.011 0.028/0.014 0.95/0.26 2004 6.49/1.26 2.04/0.71 1.324/0.000 0.159/0.011 0.093/0.013 0.91/0.23 2005 7.20/1.38 1.70/0.29 2.002/0.000 0.206/0.015 0.076/0.013 0.73/0.14 2006 6.35/1.28 1.39/0.27 0.995/0.332 0.171/0.010 0.141/0.011 0.80/0.29 2007 6.93/1.20 1.54/0.35 1.028/0.000 0.143/0.005 0.103/0.	1996	7.65/1.45	2.80/0.90	0.399/0.036	0.269/0.036	0.140/0.060	1.68/0.34
1998 7.43/1.41 2.03/0.45 2.262/0.000 0.297/0.006 0.091/0.000 1.14/0.30 1999 6.50/1.16 2.31/0.37 3.793/1.459 0.291/0.011 0.182/0.099 1.41/0.40 2000 6.57/1.21 2.04/0.56 3.247/0.271 0.306/0.016 0.125/0.060 1.28/0.37 2001 6.78/1.27 2.40/0.60 2.330/0.666 0.236/0.011 0.108/0.031 1.06/0.23 2002 6.69/1.33 2.06/0.62 2.559/0.000 0.237/0.000 0.116/0.029 1.08/0.36 2003 6.68/1.34 2.49/0.61 0.627/0.313 0.309/0.011 0.028/0.014 0.95/0.26 2004 6.49/1.26 2.04/0.71 1.324/0.000 0.159/0.011 0.093/0.013 0.91/0.23 2005 7.20/1.38 1.70/0.29 2.002/0.000 0.206/0.015 0.076/0.013 0.73/0.14 2006 6.35/1.28 1.39/0.27 0.995/0.332 0.171/0.010 0.141/0.011 0.80/0.29 2007 6.93/1.20 1.54/0.35 1.028/0.000 0.143/0.005 0.103/0.							
1999 6.50/1.16 2.31/0.37 3.793/1.459 0.291/0.011 0.182/0.099 1.41/0.40 2000 6.57/1.21 2.04/0.56 3.247/0.271 0.306/0.016 0.125/0.060 1.28/0.37 2001 6.78/1.27 2.40/0.60 2.330/0.666 0.236/0.011 0.108/0.031 1.06/0.23 2002 6.69/1.33 2.06/0.62 2.559/0.000 0.237/0.000 0.116/0.029 1.08/0.36 2003 6.68/1.34 2.49/0.61 0.627/0.313 0.309/0.011 0.028/0.014 0.95/0.26 2004 6.49/1.26 2.04/0.71 1.324/0.000 0.159/0.011 0.093/0.013 0.91/0.23 2005 7.20/1.38 1.70/0.29 2.002/0.000 0.206/0.015 0.076/0.013 0.73/0.14 2006 6.35/1.28 1.39/0.27 0.995/0.332 0.171/0.010 0.141/0.011 0.80/0.29 2007 6.93/1.20 1.54/0.35 1.028/0.000 0.143/0.005 0.103/0.034 0.72/0.16 2009 7.08/1.32 1.63/0.07 0.685/0.000 0.170/0.011 0.070/0.	1997	7.17/1.36	2.65/0.48	$1.628 / 0.509^{8}$	0.309/0.025	0.230/0.060	1.41/0.39
1999 6.50/1.16 2.31/0.37 3.793/1.459 0.291/0.011 0.182/0.099 1.41/0.40 2000 6.57/1.21 2.04/0.56 3.247/0.271 0.306/0.016 0.125/0.060 1.28/0.37 2001 6.78/1.27 2.40/0.60 2.330/0.666 0.236/0.011 0.108/0.031 1.06/0.23 2002 6.69/1.33 2.06/0.62 2.559/0.000 0.237/0.000 0.116/0.029 1.08/0.36 2003 6.68/1.34 2.49/0.61 0.627/0.313 0.309/0.011 0.028/0.014 0.95/0.26 2004 6.49/1.26 2.04/0.71 1.324/0.000 0.159/0.011 0.093/0.013 0.91/0.23 2005 7.20/1.38 1.70/0.29 2.002/0.000 0.206/0.015 0.076/0.013 0.73/0.14 2006 6.35/1.28 1.39/0.27 0.995/0.332 0.171/0.010 0.141/0.011 0.80/0.29 2007 6.93/1.20 1.54/0.35 1.028/0.000 0.143/0.005 0.103/0.034 0.72/0.16 2009 7.08/1.32 1.63/0.07 0.685/0.000 0.170/0.011 0.070/0.							
2000 6.57/1.21 2.04/0.56 3.247/0.271 0.306/0.016 0.125/0.060 1.28/0.37 2001 6.78/1.27 2.40/0.60 2.330/0.666 0.236/0.011 0.108/0.031 1.06/0.23 2002 6.69/1.33 2.06/0.62 2.559/0.000 0.237/0.000 0.116/0.029 1.08/0.36 2003 6.68/1.34 2.49/0.61 0.627/0.313 0.309/0.011 0.028/0.014 0.95/0.26 2004 6.49/1.26 2.04/0.71 1.324/0.000 0.159/0.011 0.093/0.013 0.91/0.23 2005 7.20/1.38 1.70/0.29 2.002/0.000 0.206/0.015 0.076/0.013 0.73/0.14 2006 6.35/1.28 1.39/0.27 0.995/0.332 0.171/0.010 0.141/0.011 0.80/0.29 2007 6.93/1.20 1.54/0.35 1.028/0.000 0.143/0.005 0.103/0.034 0.72/0.16 2008 6.86/1.21 1.81/0.62 2.385/0.000 0.147/0.010 0.075/0.000 1.27 /0.16 2009 7.08/1.32 1.63/0.07 0.685/0.000 0.170/0.011 0.070/0	1998	7.43/1.41	2.03/0.45	2.262/0.000	0.297/0.006	0.091/0.000	1.14/0.30
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2010 6.63/1.23 1.00/0.19 1.947/0.000 0.163/0.006 0.067/0.000 0.79/0.25	2000	0.00/ 1.21	1.01/0.02	2.303/0.000	0.147/0.010	0.075/0.000	1.27 / 0.10
2010 6.63/1.23 1.00/0.19 1.947/0.000 0.163/0.006 0.067/0.000 0.79/0.25	2009	7.08/1.32	1.63/0.07	0.685/0.000	0.170/0.011	0.070/0.014	0.56/0.21
	2005	, 100/ 1.32	2.05/0.07	0.000, 0.000	0.170,0.011	0.070,0.014	0.50/ 0.21
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, , , , , , , , , , , , , , , , , , , ,	2011	6.51/1.17	1.50/0.48	1.303/0.000	0.175/0.000	0.061/0.000	0.73/0.22
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(Source: NBAA compiled by Robert E. Breiling Associates^{xliii})

9.0 Miscellaneous data

9.1 Business jets and the environment

General aviation aircraft, including those used for business aviation, account for just 0.6% of U.S. transportation carbon emissions and 0.2% of total global greenhouse gas emissions.

Although business aviation represented 7.1% of all EU flights in 2011, their estimated contribution to carbon dioxide (CO2) emissions stands lower than 1%, around 0.8%, according to Eurocontrol^{xliv} calculations.

EBAA says that in 2011 business aircraft represent 0.03-0.04 % of all EU emissions^{xiv}.

9.2 Terms people use

The terms business jet, private jet and corporate jet are often used interchangeably.

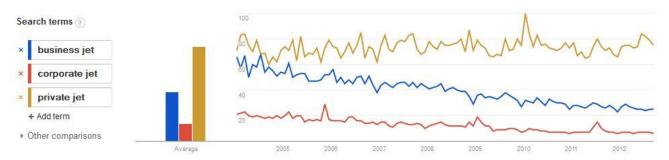
Of this only business *jet* is recognised by the Oxford English Dictionary which only added it as subentry in March 2012^{xlvi}. It recorded the first use of the term as *Canadian Aviation* in October 1956.

Business jet is still the most commonly used on the internet.

Term	Pages suggested by Google
Business jet	169,000,000
Business aviation	126,000,000
Private jet	60,600,000
Corporate Jet	24,100,000

(Source: Google on October 2 2012)

However, the number of people searching for *business jet* or *corporate jet* is falling on Google whilst searches for *private jet* are rising



(Source: Google Trends on October 2 2012)

9.3 Trade show attendance

NBAA Convention attendance

	Attendees	Exhibitors	Aircraft on display	Location
2012	25,150	1,073	105	Orlando
<u>2011</u>	26,007	1,106	101	Las Vegas
2010	24,206	1,083	93	Atlanta
2009	22,920	1,075	100	Orlando
2008	30,811	1,183	139	Orlando
<u>2007</u>	32,000	1,152	90	Atlanta
<u>2006</u>	33,088	1,140	115	Orlando
2005	28,456	1000	115	Orlando
<u>2004</u>	31,259	1,084	87	Las Vegas
2003	28,574	1,068	111	Orlando
2002	27,785	1,011	152	Orlando
2001	Cancelled			New Orleans
2000	29,421	965	150	New Orleans

(Source: NBAA)

EBACE attendance

	Attendees	Exhibitors	Aircraft on display	Location
2012	12,638	491	60	Geneva
<u>2011</u>	12,751	511	62	Geneva
2010	11,186	465	65	Geneva
2009	10,917	411	65	Geneva
2008	13,692	440	60	Geneva
2007	11,267	354	61	Geneva

(Source: NBAA/EBACE)

ABACE attendance

	Attendees	Exhibitors	Aircraft on display	Location
2013	7,714	180	34	Shanghai
2012	6,400	178	27	Shanghai
2009	Cancelled	-	-	Hong Kong
2004	282	12		Hong Kong

(Source: ABACE)

9.4 First business jets

Aircraft	First flight
Lockheed Jetstar	September 4, 1957
Rockwell Sabreliner	September 16,1958
McDonnell Douglas 220	February 11 1959
Hawker Sideley 125	August 13 1962
AC1121 Jet Commander	January 2 1963
Dassault Mystere (Falcon 20)	May 4 1963
Learjet	October 7 1963
Gulfstream II	October 2 1966
Citation	September 15 1969

(Source: Corporate Jet Investor)

9.5 Facts about manufacturers

	Date of first aircraft production	Total number of aircraft they company has built	Employees
Cessna ^{xlvii}	1928	193,500	8,500
Gulfstream ^{xlviii}	1958	2,000+	12,500
Hawker Beechcraft ^{xlix}	1932	54,000	6000

10.0 Acknowledgements

Corporate Jet Investor would like to thank all of the sources that have been referenced in the report. We appreciate their efforts to help us all understand the market better.

11.0 Footnotes and references

¹ http://press.businessaircraft.bombardier.com/pdf/BA Market Forecast Program Update.pdf

iii

http://noplanenogain.org/images/The%20Real%20World%20of%20Business%20Aviation%20101509%20FINAL copy6.pdf

xiii

 $\frac{\text{http://noplanenogain.org/images/The\%20Real\%20World\%20of\%20Business\%20Aviation\%20101509\%20FINAL_copy6.pdf}{\text{copy6.pdf}}$

[&]quot; http://www.ascendworldwide.com/

iv Dassault Falcon Breakfast NBAA 2012

v http://www.gama.aero/media-center/industry-facts-and-statistics

vi http://www.aso.com/AMSTATMarketUpdate.pdf

vii JetNet NBAA presentation

http://aerospace.honeywell.com/markets/business-aviation/2012/10-October/global-business-aviation-forecast

^{ix} Data provided by Ascend to Corporate Jet Investor in March 2012

^{*} NBAA Presentation October 2012

xi http://www.aso.com/AMSTATMarketUpdate.pdf.

xii http://www.aso.com/AMSTATMarketUpdate.pdf.

xiv Dassault Falcon Breakfast NBAA 2012

^{**} http://www2.bombardier.com/en/3 0/3 8/market forecast BA/index.html

xvi Source: www.ascendworldwide.com data sent to Corporate Jet Investor

xvii http://press.businessaircraft.bombardier.com/pdf/BA Market Forecast Program Update.pdf

xviii http://www.gama.aero/media-center/industry-facts-and-statistics

xix http://www.gama.aero/media-center/industry-facts-and-statistics

^{**} http://www.gama.aero/media-center/industry-facts-and-statistics

xxi http://www.gama.aero/media-center/industry-facts-and-statistics

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http://www.gama.aero/media-center/industry-facts-and-statistics
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