

DEDICATED TO HELPING BUSINESS ACHIEVE ITS HIGHEST GOALS.



# BUSINESS AVIATION FACT BOOK

## Business Aviation: Just the Facts

- » Business aviation contributes \$150 billion to U.S. economic output and employs more than 1.2 million people. General aviation activities – including sales of new and previously owned airplanes, as well as maintenance and other operational support – generates substantial financial benefits for every state in the nation.
- » The vast majority of GA aircraft used for business purposes worldwide are manufactured, operated, serviced and maintained in the U.S. Even the relatively small numbers of airplanes that are manufactured outside the U.S. often are “completed” (outfitted) in the U.S. with American-made avionics, electronics, systems, engines, paint, interiors and other aircraft components.
- » Business aviation operations are a source of good jobs. Flights made by business airplanes require support. Tens of thousands of pilots, maintenance technicians, schedulers, dispatchers, flight attendants, training professionals, airport employees and other support personnel are employed in business aviation.
- » Companies that utilize business aircraft outperform non-aviation users in several important financial measures, including annual earnings growth, stock and dividend growth, total share price, market capitalization and other financial yardsticks.
- » Business aviation has a small carbon footprint and an exemplary environmental record. Aviation emissions are only a tiny fraction of all transportation emissions, and business aircraft emissions are a small portion of those. The industry has a long history of continually leveraging technology to minimize noise and emissions, while improving safety and efficiency.
- » Only about 3 percent of the approximately 15,000 business aircraft registered in the U.S. are flown by *Fortune* 500 companies, while the remaining 97 percent are operated by a broad cross-section of organizations, including governments, universities, charitable organizations and businesses – large, medium and small.
- » Business aviation reaches 10 times the number of U.S. airports (over 5,000 public-use facilities) than the airlines do. The majority of U.S. airline flights only go to and from 70 major airports, and the total number of U.S. destinations served by air carriers has declined.
- » Business aircraft flights account for just 4 percent of the total traffic at the busiest airports used by the commercial airlines.
- » Business aircraft have a safety record that is comparable to that of the major airlines.
- » Business aviation enables companies to safely transport tools and materials that cannot be carried aboard airlines.
- » Since 9/11, the industry has partnered with government officials to craft and implement enhanced security requirements and best practices that reduce business aviation’s vulnerability to terrorist threats.



# ■ ■ ■ NBAA BUSINESS AVIATION FACT BOOK

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## WHAT IS BUSINESS AVIATION?

It's a fact: Business aviation plays a vital role for citizens, companies and communities across the U.S. The industry is vital to the national economic interest, generating over a million jobs, providing a lifeline to communities with little or no airline service, helping thousands of businesses of all sizes to be more productive and efficient, and providing emergency and humanitarian services to people in need.

As a subset of general aviation (GA), business aviation is commonly defined as the use of general aviation aircraft for business purposes. General aviation, which encompasses all civil aviation activity except that of the commercial airlines, is an integral and vital part of the world's transportation system.

Business aircraft include helicopters, piston-powered propeller-driven airplanes and turbine-powered turboprops and turbojets. Although the worldwide fleet includes ultra-long-range business jets capable of flying 20 or more passengers nonstop between distant international business centers such as New York and

Tokyo, the vast majority of business aircraft seat six passengers in a cabin roughly the size of a large SUV and fly average trips of less than 1,000 miles. To facilitate the conduct of business, many of these aircraft are equipped with phones and computers with Internet access.



### Fast Facts

- ▶ Small companies operate the majority of business aircraft. Most companies (59 percent) operating business aircraft have fewer than 500 employees, and seven in 10 have less than 1,000 employees.
- ▶ Business aviation serves 10 times the number of U.S. airports (more than 5,000) served by commercial airlines (about 500).
- ▶ Business aircraft users have a dominant presence on “best of the best” lists for the most innovative, most admired, best brands and best places to work, as well as dominate the lists of companies strongest in corporate governance and responsibility, revenue growth and market share, indicating that business aviation is the sign of a well-managed global company.



“Business aviation is essential to tens of thousands of companies of all types and sizes that are trying to compete in a marketplace that demands speed, flexibility, efficiency and productivity.”

## WHO USES BUSINESS AVIATION?

Only about 3 percent of U.S. business aircraft are flown by *Fortune* 500 companies, while the remaining 97 percent are operated by a broad cross-section of organizations, including governments, universities, charitable organizations and businesses – large, medium and small. Furthermore, most business aviation flights involve time-critical trips by sales, technical and middle management employees, not trips by top executives.

In fact, business aviation is essential to tens of thousands of companies of all types and sizes that must compete in a marketplace that demands speed, flexibility, efficiency and productivity. The vast majority of the U.S. companies that utilize business aircraft – 85 percent – are small and mid-size businesses, many of which

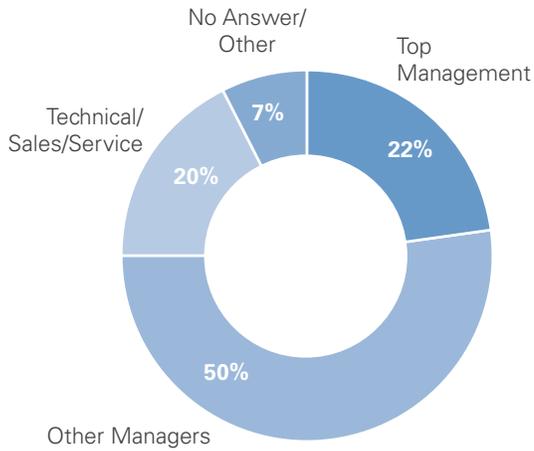
are based in the dozens of communities across the country where the airlines have reduced or eliminated service. Thus, business aviation provides an essential transportation link – a lifeline – between these smaller companies and communities and the rest of the world.

“Several studies have shown that the productivity and efficiency gains from business aviation translate into tangible and quantifiable benefits for companies, shareholders and the national economy.”

While the organizations that rely on business aviation are varied, they all have one thing in common: the need for fast, flexible, safe, secure and cost-effective access to destinations worldwide:

- ◆ Many companies use business aircraft to transport personnel and priority cargo to a variety of far-flung company or customer locations, including sites overseas.
- ◆ Business aircraft often are used to bring customers to company facilities for factory tours, product demonstrations or sales presentations.
- ◆ Companies and individuals, such as salespeople and doctors, use business aircraft to cover regional territories within several hundred miles of their home bases. While the overwhelming majority of business aircraft missions are conducted on demand, some companies have scheduled operations, known as “shuttles.”
- ◆ NBAA Member Companies spend about \$12 billion each

### Passenger Profile by Job Title



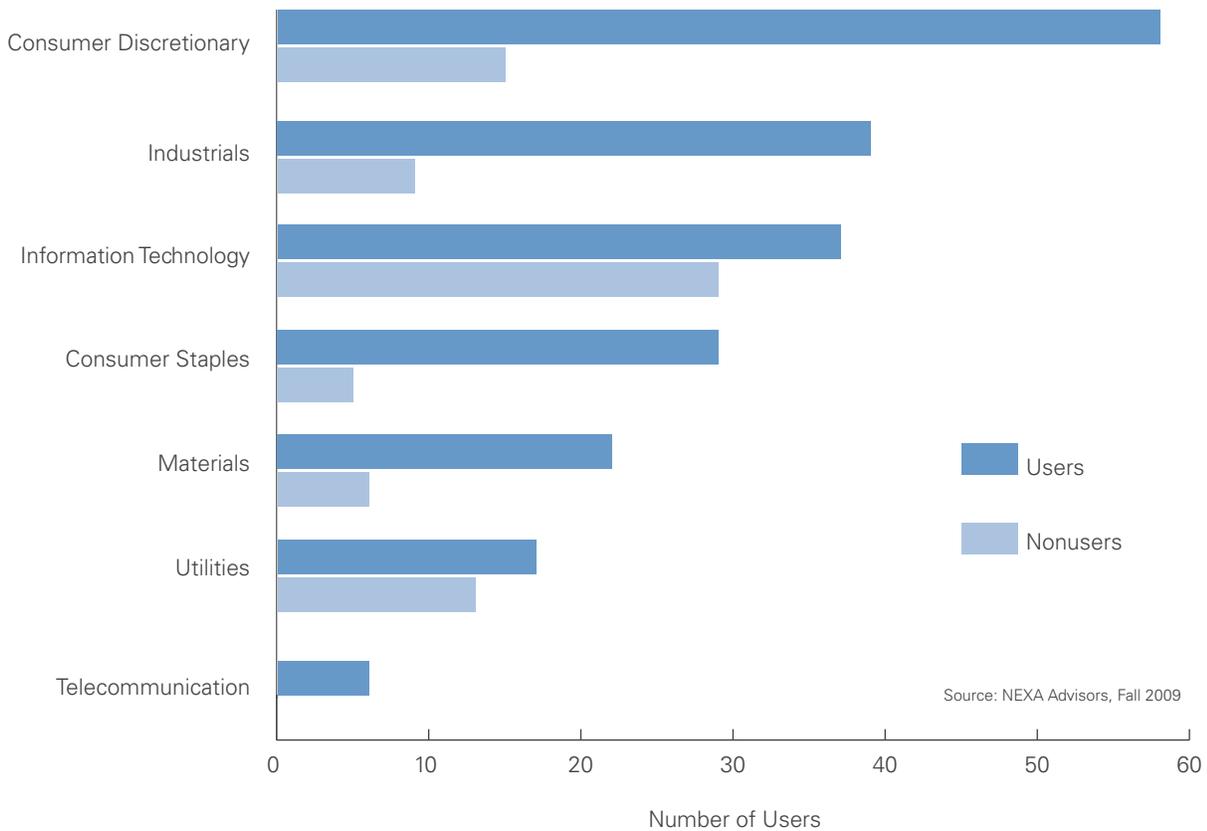
Source: Harris Interactive Survey, 10/2009

### Number of Aircraft Used by Companies



Source: Harris Interactive Survey, 10/2009

### Business Aviation Users vs. Nonusers by Industry Sector Within the S&P 500 (2003–2007)



Source: NEXA Advisors, Fall 2009



year for employee travel with the commercial airlines. Many of these companies do a sophisticated analysis before each mission to determine whether airline travel or business aviation is the mode of transportation best suited to the mission.

The terms “business” and “corporate” often are used interchangeably to refer to business aviation operations because they both entail use of a GA aircraft to support an enterprise. However, the Federal Aviation Administration (FAA) has slightly different definitions for “business aviation” and “corporate aviation.”

- ◆ The FAA defines “business aviation” as “any use of an aircraft (not for compensation or hire) by an individual for transportation required by the business in which the individual is engaged.”
- ◆ In contrast, the FAA defines “corporate aviation” as those flights that utilize professional pilots who operate, but do not own, the aircraft.

#### WHY USE BUSINESS AVIATION?

A company’s decision to utilize business aviation depends on a variety of factors, including the availability

of commercial airline service, both at its headquarters and travel destinations; the number of sites to be visited in a single day; the number of passengers to be transported; the need to discuss proprietary matters en route; the requirement to move specialized and outsized equipment; as well as a host of other considerations. Reasons why organizations use business aviation to meet their transportation challenges include:

- ◆ **Saving employee time.** Efficient employee scheduling and employee time-savings are possible because business aircraft have the ability to fly on demand and nonstop between smaller airfields that usually are closer to a traveler’s destination than a major airport.
- ◆ **Increasing traveler productivity, safety and security en route.** When traveling on business aircraft, passengers can meet, plan and work in a secure office environment, free from interruptions and distractions, which enables them to discuss proprietary information without fear of eavesdropping, industrial espionage or physical threat. Travelers can strategize before meetings and debrief afterwards

or conduct meetings en route. Also, many aircraft are outfitted with advanced communications technologies – including phones, e-mail and Internet access – that enable travelers to remain in constant contact throughout their flight with colleagues on the ground. Most importantly, business aircraft are engineered and built to the highest standards and are typically flown by two-person professional crews, all of which has enabled business aviation to achieve a safety record comparable to that of the major airlines.

- ◆ **Reaching multiple destinations quickly and efficiently.** Companies that need to reach multiple destinations in a single day use business aviation because that type of mission is nearly impossible to accomplish using any other mode of transportation.
- ◆ **Accessing communities with little or no airline service.** Business aviation serves 10 times the number of U.S. airports (more than 5,000) served by commercial airlines (about 500). The ability to use smaller, less-congested airfields located closer to one’s final destination is a vital part of the utility and flexibility



## VIKING RANGE

### A Name-Brand Product from a Small Hometown

For Greenwood, MS-based Viking Range, which employs 1,100 people in the state and whose products are found in more than 80 countries, business aviation is a necessity.

Flying into Greenwood, the hometown of Viking founder Fred Carl, Jr., is impossible via airline, and driving 90 miles from the nearest airline destinations – Memphis, TN or Jackson, MS – is time-consuming. That’s why Viking uses two Cessna Citation jets to bring clients and vendors directly to Greenwood for sales meetings, training sessions and product demos. With its airplanes, Viking can pick up these passengers at airports near their own offices and bring them directly to Greenwood.

“We’ll do everything from short hops to connect with commercial traffic up in Memphis, to seeing clients in Boston, out on the West Coast, or in Mexico and Canada,” says aviation department manager Barry Shelton. “Our productivity and efficiency is tremendously increased by using our planes.”

of business aviation aircraft. It means companies can stay or establish plants or facilities in the growing number of small towns or rural communities with little or no commercial airline service.

- ◆ **Scheduling predictability.**

About 3 percent of all commercial airline flights are cancelled, but nearly one quarter more are delayed. If a commercial flight cancellation or delay causes passengers to miss an airline connection, the odds of getting on the next flight are substantially reduced. Also, some companies are located in towns with very low frequencies of airline flights, leaving company employees with few or no alternatives if a flight is canceled. These types of concerns over delays or cancellations are virtually nonexistent on business aircraft.

- ◆ **Supporting the travel needs of many types of company employees.** Surveys indicate that

more than 70 percent of passengers aboard business airplanes are non-executive employees. Companies often send teams of employees to a given destination on a business aircraft because it is the most cost-effective means of transport.

- ◆ **Moving vital equipment.** When companies need to immediately ship sensitive, critical or outsized equipment, business aviation is often the best solution.

- ◆ **Exercising management control over scheduling.** The near-total scheduling flexibility inherent in business aircraft – even changing itineraries en route – can be a powerful asset. Business aircraft can arrive and depart on the passengers’ schedule, typically waiting for them in the ordinary course of business. Thus, meetings can be moved up, back or extended without penalty, risk or unnecessary scheduling pressures. In

today’s business environment, companies need to be nimble. Business aviation provides flexibility for companies that need to ensure employees can respond quickly to changing demands and circumstances.

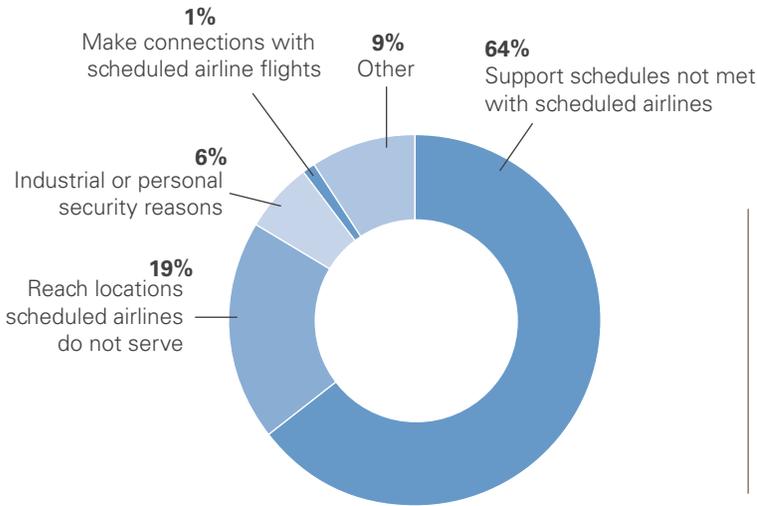
- ◆ **Minimizing non-business hours away from home.**

Business aircraft enable flexible scheduling and quick and easy access to meeting locations, thereby minimizing time away from home and office.

- ◆ **Providing a return to shareholders.** Studies have confirmed that companies that use business aviation to solve their transportation challenges return more to shareholders than companies in the same industry that do not utilize business aviation.

- ◆ **Charging the entrepreneurial spirit.** By minimizing or eliminating many of the barriers to travel, business aircraft enable

## Reasons for Business Aircraft Use



Note: Total does not equal 100 due to rounding.

Source: Harris Interactive Survey, 10/2009

## Types of Locations Flown Into



Note: Each total represents number of locations flown to in a six-month period.

Source: Harris Interactive Survey, 10/2009

companies to quickly respond to business opportunities.

- ◆ **Supporting humanitarian and charity efforts.** Business aviation supports people and communities in crisis by flying people with illnesses to centers for treatment, transporting blood and organs to hospitals, connecting military veterans with their families, and providing emergency relief services to victims of natural disasters.

### STUDIES CONFIRM VALUE OF BUSINESS AVIATION

Surveys of companies using business aircraft have shown that:

- ◆ More than 60 percent of survey respondents use their aircraft to support efficient schedules, including using them to reach remote locations not served by a scheduled airline.
- ◆ Passengers feel they are significantly more productive aboard

business aircraft than they are even in their own offices.

- ◆ Productive collaboration among company employees aboard business aircraft occurs nearly eight times more often than when those same employees are aboard commercial aircraft.
- ◆ Productive collaboration with customers occurs nearly seven times more often than on commercial aircraft.

Perhaps most important, several studies have shown that the productivity and efficiency gains from business aviation translate into tangible and quantifiable benefits for companies, shareholders and the national economy.

### BUSINESS AIRCRAFT UTILIZATION OPTIONS

Many business aircraft are owned by individuals or companies that typically fly with two-person, professionally trained crews whose primary,

if not exclusive, responsibility is to operate the company aircraft. Some individuals and smaller companies that operate business aircraft, especially individual business people who own their airplanes, use one pilot to fly single-engine airplanes or light twin-engine piston, turboprop or jet-powered aircraft.

While most business aircraft are owned by the individuals or companies that fly them, they also sometimes utilize business aviation through arrangements such as chartering, fractional ownership, leasing, time-share agreements, partnerships, aircraft management contracts or interchange agreements. The latter is an arrangement under which a person leases his airplane to another person in exchange for equal time, when needed, on the other person's airplane, at no charge.

On-demand air charter provides companies with instant access to business aircraft. Many charter customers are first-time users



## PROFILE

## DR. LANCE FERGUSON

## Supporting a Medical Practice

Dr. Lance S. Ferguson is an ophthalmologist and surgeon from Lexington, KY who operates a Cessna Citation Mustang.

Flying is an important part of maintaining Ferguson's referral-only surgical practice, which is "predicated on developing trust and great relationships with primary care practitioners," he said. "Making the effort to go out to these doctors' locales to meet them has been a competitive advantage."

A typical flight has Ferguson finishing his last surgery of the day around 3:00 p.m. An hour later, he is ready to embark upon a half-hour flight to visit a doctor elsewhere in Kentucky. By 7:00 p.m. he is back in the airplane, returning home by 7:30.

Ferguson said it would not be feasible for him to drive three hours one-way to make a business meeting. "But if I can do it by flying 30 or 40 minutes, it's much easier on me. I am rested and ready to go the next day."

of business aviation. Air charter flights operate on the passenger's schedule, which provides them with considerable flexibility, as well as safe and convenient access to thousands more destinations than airlines can provide.

Companies that charter on a regular basis sometimes will purchase a block of charter time at discounted rates, a practice that is known as "block charter." Other business aviation customers participate in jet-card programs, which offer cardholders business aircraft access, typically in increments of 25 or 50 hours, without requiring any long-term financial commitment.

Business aircraft users that have a greater need for on-demand air transportation but whose travel requirements do not justify the purchase of an entire aircraft, often participate in fractional ownership programs. Companies or individuals purchase a fraction (as little as a 1/16 share) of an aircraft and receive management and pilot services associated with the aircraft's opera-

tion. Fractional ownership enables companies to experience many of the advantages of business aviation quickly and without many of the startup considerations typically associated with traditional flight departments.

Some business aviation users, who need an aircraft to meet their travel needs but are willing to allow others to use the airplane part of the time, enter into partnerships, time-share or interchange agreements. Other aircraft owners who want to offset the expense of operating their airplane, offer their aircraft for charter under FAR Part 135 regulations.

Companies that purchase or lease an aircraft often set up a flight department – staffed by pilots, maintenance technicians and other aviation professionals – to handle all aspects of their on-demand air transportation operation. However, these companies sometimes utilize vendors for a variety of support services, from contract maintenance to turnkey aircraft management.

Business aircraft generally are not flown for compensation or hire. Thus, the majority of U.S.-registered business aircraft are governed by Part 91 of the Federal Aviation Regulations (FARs). Most of the U.S.-registered GA aircraft that are flown for compensation or hire are regulated by FAR Part 135, which covers commercial operations, including air charter.

### FLIGHT HOURS HISTORICALLY STEADY

FAA data shows that use of the overall aviation system by business aviation is actually flat or down in terms of flight hours in recent years. Indeed, the average turbine business aircraft (turboprops and jets) flies about 10 percent of the amount of flight hours in a year for a commercial airliner.

The table on the facing page details the hours that business aviation, as part of the general aviation segment, has flown over the past several years.

U.S. General Aviation and Air Taxi Activity, 2006–2010 (Estimated Hours Flown in Millions)

General Aviation Use	2006	2007	2008	2009	2010
Personal	9.1	8.7	8.3	8.5	8.0
Business	3.2	3.1	2.5	2.5	2.4
Corporate	3.1	3.2	3.1	2.4	2.7
Instructional	4.3	3.8	4.4	3.4	3.9
Aerial Application	0.9	1.4	0.9	1.0	1.1
Aerial Observation	1.2	1.4	1.4	1.2	1.7
Aerial Other	0.2	0.4	0.3	0.2	.3
External Load	0.1	0.2	0.2	0.1	.1
Other Work	0.2	0.1	0.3	0.2	.3
Sightseeing	0.2	0.2	0.2	0.1	.2
<b>General Aviation Use Total</b>	<b>24.0</b>	<b>23.8</b>	<b>22.8</b>	<b>19.6</b>	<b>20.7</b>
On-Demand FAR Part 135 Use					
Air Taxi	2.7	3.1	2.4	2.2	2.2
Air Tours	0.3	0.5	0.3	0.2	0.3
Air Medical	0.7	0.4	0.6	0.7	0.8
<b>On-Demand FAR Part 135 Use Total</b>	<b>3.7</b>	<b>4.0</b>	<b>3.2</b>	<b>3.1</b>	<b>3.3</b>
<b>Total General Aviation and On-Demand FAR Part 135 Use</b>	<b>27.7</b>	<b>27.9</b>	<b>26.0</b>	<b>22.7</b>	<b>24.0</b>

**Notes:**

Columns may not add to totals due to rounding.

Starting in 2004, FAR Part 135 Air Taxi, Air Tours, and Air Medical use categories were added and tabulated separately from other general use categories.

Beginning in 2004, commuter activity is excluded from all estimates. Commuter activity was included in the Air Taxi use category in 2003 and prior.

Source: FAA Administrator's Fact Book, 2012 and earlier editions

## ■■■ BUSINESS AVIATION MEANS JOBS AND ECONOMIC DEVELOPMENT

It's a fact: Business aviation means jobs. From the smallest U.S. towns to the largest American cities, business aviation plays an important role in regional and state economies. Directly through aircraft manufacturing and airport-related jobs, and indirectly through the purchase of goods and services by firms involved in the manufacture, operation and maintenance of business aircraft, business aviation is a major economic driver throughout the United States.

Nationwide, business aviation employs 1.2 million people, and contributes \$150 billion to U.S. economic output. In some states and regions, the industry is an especially significant generator of employment and local investment. A case in point is Kansas, where aviation accounts for \$7.1 billion, or nearly one-third, of

the state's economy. Most of that activity is related to the major business aircraft manufacturing companies based in Wichita.

Yet even in a smaller state, like Rhode Island, business aviation contributes \$460 per year for every resident in the state.

### **BUSINESS AVIATION IS GOOD BUSINESS**

Business aircraft manufacture is one of the few industries still contributing positively to the nation's balance of trade, and the jobs created through the manufacture of business aircraft are good manufacturing jobs that the U.S. can retain in the



### **Fast Facts**

- ✦ Business aviation contributes \$150 billion annually to the U.S. economy.
- ✦ The industry employs more than 1.2 million people in the U.S.
- ✦ The majority of the world's business aircraft are operated, serviced and maintained in the U.S., creating numerous jobs in every state of the nation.



21st century. The industry produces the vast majority of all business aircraft flown worldwide.

Not only are these aircraft built in the U.S., but the majority of the world's general aviation (GA) aircraft are flown, serviced and maintained in America.

Even the planes manufactured outside the U.S. are often "completed" in America, where engines, avionics, electronics, paint, interiors and other U.S.-made components are installed.

Many of the companies in aircraft completion are small and mid-size businesses involved in the production of goods and services needed to make an aircraft. These might include producers of aluminum, glass, plastic, fabric and other materials, or radio, TV, Internet and other

communications equipment for navigation, coordination with air traffic control and other functions. Of course, the jobs in business aviation go well beyond those involved in aircraft manufacture and completion. The operation of business aircraft employs hundreds of thousands of workers in every state in the country, and includes schedulers, dispatchers, maintenance technicians, pilots, training professionals, insurers and other specialists.

### **GA AIRPORTS ARE ECONOMIC ENGINES**

The mostly small, public-use airports across the country that are used by business aircraft are key economic engines, boosting jobs, local investment and economic activity in communities across the nation.

These community airports create jobs for area residents through the

aviation-related businesses on and near the airport – flight schools, aircraft repair businesses, aircraft

**"The general aviation airports across the country that are used by business aircraft are key economic engines, boosting jobs, local investment and economic activity in communities across the nation."**

manufacturers, fixed-base operators providing fuel and aircraft parking, etc. – as well as businesses indirectly related to the airfield. These include restaurants, hotels, car rental companies, shopping outlets and other companies positively impacted by the flow of passengers, goods and services through the airport.

In turn, these employers generate important tax revenues for cities, counties and states.

Furthermore, airports help keep existing employers in a community and attract new ones to a region because companies are eager to capitalize on the transportation and competitive business advantages offered by airports – most importantly, easy access to world markets. Business developers and venture capitalists look for ready access to air transportation when they make decisions on where to locate new businesses and facilities.

In fact, without an extensive network of airports, the “just-in-time” model of inventory management would be impossible.

Consider Teterboro Airport (TEB), located in Northern New Jersey, which employs 1,700 people. A 2005 economic impact study by the Port Authority of New York & New Jersey found that TEB is responsible for more than 15,000 jobs and \$1.8 billion in annual sales in the region.

Northern New Jersey’s hotel industry also depends on the business it gets from Teterboro. Professional flightcrews and other individuals that

fly into and out of TEB represent nearly one-third of 400,000 available hotel nights in the region, and local municipalities earn \$250,000 to \$500,000 annually in revenue from occupancy taxes at those hotels.

Oklahoma’s Wiley Post Airport is home to a mixture of piston twins and jets, and airport officials report that more than 50 airport businesses employ more than 1,000 people earning \$52 million a year, while direct expenditures from airport activities contribute more than \$100 million a year to the area economy.

Meanwhile, Charles B. Wheeler Downtown Airport (MKC), located in the Kansas City area, is home to jets and single- and twin-engine aircraft. Like many community airports, Wheeler has no scheduled airline service. Nevertheless, a 2002 analysis revealed the direct and indirect economic impact of the airport to the Kansas City metropolitan area is an estimated \$280 million annually.

California’s Van Nuys Airport (VNY) is the world’s busiest general aviation airport. Located in the greater

Los Angeles area, VNY has more than 100 businesses located on its 730-acre facility. An airport study released in 2007 found that the general aviation and passenger activity at the airport, as well as the non-aviation real estate activity at Van Nuys, generated 12,317 direct, indirect and induced jobs in the Los Angeles metropolitan area, as well as \$1.3 billion of business revenue.

More than \$707 million in personal income and local consumption was generated by the airport, as well as nearly \$80 million in state and local taxes.

### STATES RECOGNIZE VALUE

To date, nearly all U.S. states have issued formal proclamations heralding the value of business aviation to bringing jobs and economic benefits to their residents. For example, when Gov. Scott Walker declared 2013 Aviation Week in Wisconsin, he noted that aviation and airports generate about \$7 billion annually in economic activity and support 90,000 jobs, which provide \$3.5 billion in personal income to Wisconsin residents.

## Estimated Billings (in Millions) for U.S.-Manufactured GA Airplane Shipments by Type of Airplane Manufactured Worldwide (2003–2012)

Year	Total Piston	Turboprop	Business Jet	Total Turbine	Grand Total
2003	545	837	8,616	9,453	9,998
2004	692	997	10,229	11,226	11,918
2005	805	1,189	13,161	14,350	15,156
2006	857	1,389	16,569	17,958	18,815
2007	897	1,593	19,347	20,940	21,837
2008	945	1,953	21,874	23,827	24,772
2009	442	1,589	17,443	19,032	19,474
2010	415	1,300	18,000	19,300	19,715
2011	441	1,365	17,235	18,600	19,042
2012	428	1,340	17,105	18,445	18,873

Source: General Aviation Manufacturers Association, 2012 | Note: The 2011 and 2012 data includes the additional of agricultural airplanes manufacturers for piston and turboprop deliveries and also new piston airplane manufacturers. The data cannot be directly compared to 2010 and earlier entries.



## IAM

### Business Aviation Is at Work for This Union

No one has a greater appreciation of the job-creating power of business aviation than R. Thomas Buffenberger, international president of the International Association of Machinists and Aerospace Workers (IAM). His union represents nearly 700,000 aviation and aerospace workers, including the 84,000 who build U.S. business aircraft, so it's little wonder that Buffenberger champions an industry that provides good, high-paying American manufacturing jobs and contributes positively to the country's balance of trade.

IAM, which is headquartered in Washington, DC, also has helped industry groups dispel the myths surrounding the use of general aviation aircraft. "These airplanes are used to conduct the business of America, to make the flow of commerce more efficient and effective," explained Buffenberger.

IAM believes in business aviation so much that it uses a Bombardier Learjet 60 to conduct its own business more efficiently and productively. That airplane, which has traveled to every U.S. state and Canadian province, as well as to 25 countries, has been particularly useful in collective bargaining and organizing efforts, giving union leaders the ability to move quickly and engage employers, as well as union members, face to face.

Although business aviation is a major economic contributor in every state, some states rely on it more than others because of geographic or other characteristics.

In a 2013 proclamation, West Virginia Gov. Earl Ray Tomblin specifically noted the benefit of GA where mountains deny direct roadways. "Given our state's geography, a great many businesses and communities depend on general aviation aircraft and small aircraft of all types for access to medical treatment, mobility, economic opportunity, disaster relief and a wide range of critical resources," he said. Despite its relatively small size, West Virginia has 32 public airports. General aviation contributes \$616 million, or \$333 per capita, to the state's economy, and the state's total aerospace industry has a direct wage and benefits impact of about \$46 million and supports about 3,200 jobs.

Due to the state's geography, the communities of Texas are often linked more effectively by air than by

ground. "Thousands of Texans rely on the aviation industry for employment," Texas Governor Rick Perry wrote in his 2012 proclamation. "General aviation and related activities generated \$14.6 billion in direct, indirect and induced economic activity in the state of Texas." A recent study counted 61,000 Texas aviation jobs with a payroll of \$2.5 billion. Texas also has been ranked the most business-friendly state in the nation by several publications, including *Forbes* magazine, in part because of the state's well-developed network of nearly 400 community airports.

Alaska – where many towns and communities are accessible only by air – also illustrates the many benefits that aviation, including business aviation, provides to a state. In a 2012 General Aviation Appreciation proclamation, Gov. Sean Parnell noted that 10 percent of the state's jobs are related to business flying in the state, "an overall economic impact of \$400 million, or \$571 per capita, ranking Alaska's aviation industry among those of the top 10 states most impacted economically by aviation."

#### General Aviation Contribution to U.S. GDP (2009)

Description	Value Added (\$ Billions)	Percent of GDP
General Aviation (Direct)		
GA Operations	19.7	0.1
GA Aircraft Manufacturing	12.1	0.1
General Aviation (Indirect)		
GA Visitor Expenditures	7.1	0.1
<b>Total General Aviation</b>	<b>38.9</b>	<b>0.3</b>

Source: FAA Air Traffic Organization, 2011

## ■ ■ ■ BUSINESS AIRCRAFT ARE TIME-SAVING PRODUCTIVITY TOOLS

It's a fact: Business aviation is a productivity-enhancing tool used by thousands of companies and organizations of all sizes. These forward-thinking entities utilize business aircraft to minimize travel time; enhance the efficiency, productivity, safety and security of key personnel; increase their presence at outlying company facilities and in the marketplace; and ensure the most expeditious delivery of critical materials, tools and equipment.

Business aircraft are valued because they provide rapid, point-to-point, on-demand transportation.

In fact, business airplanes are so efficient that many users rely on them to reach multiple destinations in a single day. Such one-day, multi-stop

itineraries simply are impossible with other modes of transportation.

Business airplanes can operate directly to and from approximately 5,000 U.S. airports, compared with about 500 served by commercial airlines, thus enabling business air-

craft passengers and priority equipment to get where they are going as quickly as possible.

Those who fly on business airplanes can meet, plan and work en route with unparalleled ease, because many of the aircraft are configured



### Fast Facts

- ✎ Traveling on a business aircraft can significantly improve productivity before, during and after the trip through travel schedules optimized for efficiency, and cabin configurations conducive to individual and team work, often with access to full office facilities, including telecommunications.
- ✎ Optimal schedules using shorter non-stop trips that return earlier also improve productivity by reducing fatigue.
- ✎ Employees use their time onboard company aircraft more effectively and productively than when they are on airline flights. Some passengers even estimate that they are more productive on the company aircraft than they are in the office because of fewer distractions.



similar to an office conference room. Employees, customers and business partners flying on a business airplane can discuss proprietary information in a secure environment without fear of eavesdropping, industrial espionage or physical threat.

Because many business aircraft are equipped with the latest communications technologies – Internet, e-mail and satellite or cell phones – travelers can remain productive and in touch with their colleagues on the ground throughout a flight. This communication capability is critical for companies managing rapidly changing situations common in today’s fast-paced business environment. And when evolving business conditions require changes to travel plans, business aircraft can alter course and fly to a new destination on a moment’s notice, making

aircraft users better able to respond faster to emergencies or strategic opportunities.

Simply put, business aircraft are time-savers and productivity multipliers that enable users to do more, faster. Much like an investment in state-of-the-art computer software,

“Business aircraft are valued because they provide rapid, point-to-point, on-demand transportation.”

a business airplane enables people to get more work done in less time. And as numerous studies have shown, enterprises that are more efficient and productive usually are more profitable as well. In short, the mobility provided by business aircraft is a key to success for many organizations.

## **BUSINESS AIRCRAFT UTILIZATION STRATEGIES**

Business aviation can meet a variety of travel requirements:

- ◆ **Transportation of employees.** The most common use of business aircraft is to transport a company’s own employees to meet numerous organizational objectives: facilitating strategic opportunities, exploring new markets, extending management control, and improving relations with customers, suppliers, investors and the public.
- ◆ **Transportation of customers.** Business aircraft are often used to bring customers to visit a company facility for a briefing on a new product or service. During the flight itself, company personnel can make presenta-

## PROFILE



## BERRY COMPANIES

## Airplane Builds Business, Helps Customers Build Theirs

Berry Companies – which sells construction and materials handling equipment throughout the Midwest – relies on its Cessna Mustang to save time for its customers and employees.

Chairman Fred Berry, Jr. explained that the jet is utilized to transport customers to job sites so they can see what the construction equipment can do. Typically, a salesman accompanies several people from a customer's company on such trips.

Being able to get customers to and from a site quickly is vital, explained Berry. "Customers will give you one day, but not two days [to demonstrate equipment]. We can fly 400 to 600 miles, spend three or four hours on the ground and be back that night, so having an airplane is a big advantage."

The ability to fly people from headquarters to meetings at the company's eight different divisions is also key in providing "face time with people who make things happen," he added.

tions and hold discussions with current or prospective customers.

◆ **Transportation of suppliers.**

Companies can accelerate or improve supply-chain integration by transporting suppliers efficiently via business aircraft. The purpose of the trip may be to improve a supplier's understanding of manufacturing processes, bring multiple suppliers to customer meetings, or simply to conclude supplier negotiations.

- ◆ **Transportation of cargo, parts and mail.** Moving cargo and mail between company facilities and externally among suppliers, customers and potential customers can be productive. Depending on volume, this practice can substantially reduce overnight shipping costs. Also, the direct shipment of parts to remote locations or the delivery of emergency components to keep production flowing often is critical.

◆ **Transportation for humanitarian and charity missions.**

Business aviation supports people and communities in crisis by flying people with illnesses to centers for treatment, transporting blood and organs to hospitals, connecting military veterans with their families, and providing emergency relief services to victims of natural disasters.

**BUSINESS AVIATION:  
INHERENTLY VALUABLE**

Because business aircraft passengers can accomplish more in a single day than is possible via any other transportation mode, business aviation enables key personnel – mostly mid-level managers, sales teams and professional and technical support people – to be more productive and nimble. Such mobility often yields numerous tangible benefits for the aircraft operator.

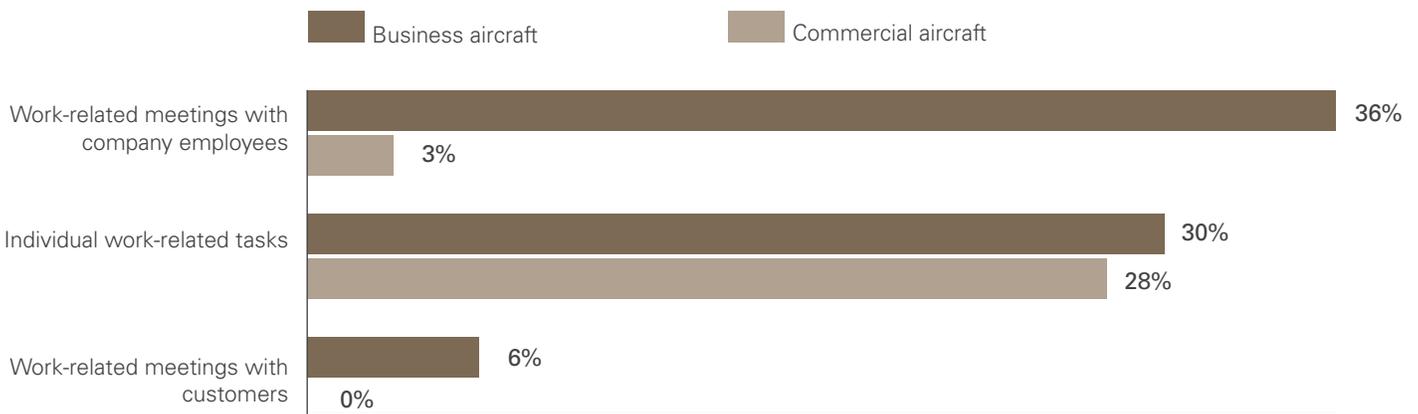
The key benefit is that it conserves one of the most precious of commodities: time. Business aircraft

passengers can take the time needed to connect, communicate and interact with customers, face-to-face. If necessary, travelers can adjust their departure or arrival time to ensure that their customer or partner is satisfied and a job is done right. In an era of globalization, the need to establish and nurture the increasing number of long-distance business relationships has never been more critical.

Another, perhaps more subtle, benefit to aircraft-operating companies is that giving key personnel access to business aviation often enables them to travel quickly and efficiently, conduct a full day's work, and return home the same day.

Similar to the business use of aircraft, government agencies at the federal, state and local levels operate and charter aircraft to provide safe and cost-effective on-demand air transportation. Governments typically utilize aircraft to transport officials; move project teams with cargo; and provide search, rescue

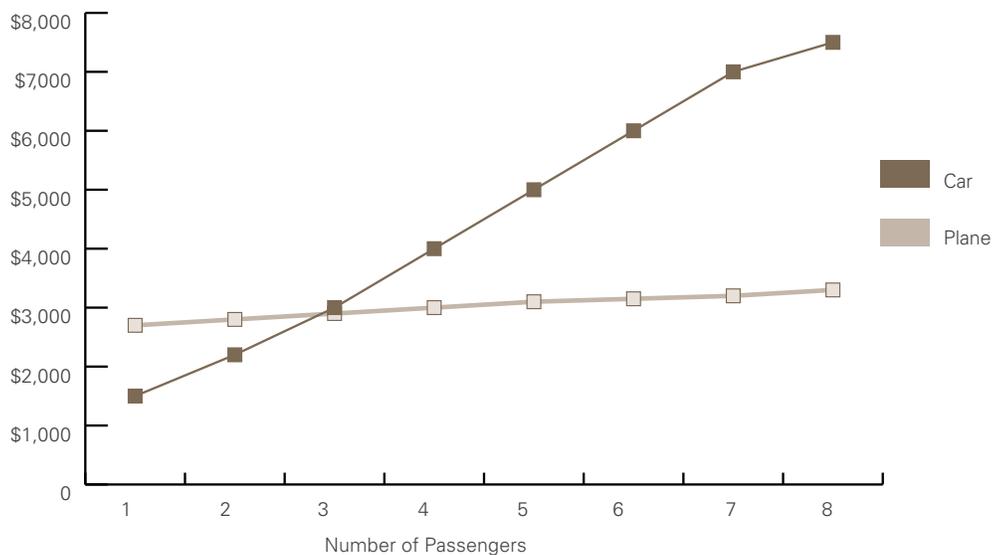
## Time Spent Aboard Aircraft



Source: Harris Interactive Survey, 10/2009

Studies show that employees use their time onboard company aircraft more effectively and productively than when they are on airline flights. Some passengers even estimate that they are more productive on the company aircraft than they are in the office because of fewer distractions.

## Sample State Cost Comparison: Ground vs. Air Transportation



Source: NEXA Advisors, 2012

States have developed cost comparisons to other modes of transportation to justify use of the state aircraft, such as the cost comparison shown above developed by the state of Idaho.

and emergency operations, among other uses.

A 2012 study conducted by NEXA Advisors shows that such government utilization increases agency or departmental efficiency and provides significant taxpayer value.

According to the report, "government use of aircraft provides taxpayer value by providing public safety and security, supporting more efficient, effective government, protecting public health and welfare, facilitating economic growth, improving tax dollar efficiency, promot-

ing good government relations, and improving compliance."

In short, business airplanes help companies and government organizations alike capitalize on two of their most important resources: people and time.

## ■■■ BUSINESS AVIATION STRENGTHENS BUSINESSES, COMMUNITIES

It's a fact: Business aviation provides a critical transportation lifeline to thousands of communities all across the U.S. that have little or no airline service. This means that when a company needs to reach clients, manage far-flung facilities, or seek out new opportunities, business aviation isn't just the most prudent option – it's often the only option.

Just as tens of thousands of American business people board airline flights at the 500 U.S. commercial airports each day, thousands of other working men and women – marketing, engineering and technical support specialists and more – arrive and depart on business aircraft flights at 5,000 U.S. public-use airports, 4,500 of which are not served by scheduled air carriers.

Easy access to air transportation is a key business advantage, and many companies attribute their success, and sometimes their choice of location, to their nearby community airport. Many firms specifically choose to locate an office or plant near a small public airport because of the ready and efficient access it gives the company to the national air transportation system and markets across the nation and around the world.

That is why business aviation is considered an essential tool by 11,000 U.S.-based companies – most of them small to mid-size businesses. These companies and organizations utilize business aircraft because there is no more efficient and flexible transportation option that provides direct access to destinations located far from a company's headquarters.



### Fast Facts

- ✎ Most business aircraft flights are made into secondary airports or airports with infrequent or no scheduled airline service.
- ✎ The more than 5,000 U.S. public-use airports that serve towns both large and small are also engines for local economies, making them important community assets.
- ✎ The airports in small communities also support flights for vital services, including organ transplants, patient transport, emergency rescue, law enforcement, firefighting, postal delivery and other missions.

“A study by Harris Interactive found that a large majority of business aircraft flights are made into airports with infrequent or no scheduled airline service.”



In fact, a study by Harris Interactive found that a large majority of business aircraft flights are made into airports with infrequent or no scheduled airline service. In other words, without business aviation, the old saying “You can’t get there from here,” would be a harsh reality for many companies.

Respondents to the Harris Interactive study also reported that only a small percent of their flights involved the nation’s top 10 airports. Instead, the respondents estimated that their flights in 2009 were largely to airports in communities that didn’t have scheduled airline service at all.

### **ESSENTIAL ROLE OF AIRPORTS**

Although some 500 airports have limited commercial airline service, frequent commercial service is available only at the less than 70 large and medium hub airports in the U.S. For the myriad communities in America that are not serviced by

these few hubs, there is simply no way to get there by air without business aviation. For these communities, general aviation (GA) airports are vital infrastructure.

Basically, the U.S. network of more than 5,000 public-use airports consists of commercial and noncommercial (general aviation) airfields. Commercial service airports – those fields that primarily offer airline flights – come in various sizes – small, medium and large, depending on how many passengers or flights they handle. Typically, these facilities have large passenger terminals and multiple, longer runways designed to accommodate the biggest airliners. The largest commercial airports, such as Chicago’s O’Hare International Airport, serve as hubs in the hub-and-spoke systems of connecting airline service.

Together, the 29 large hub airports account for two-thirds of all U.S.

commercial passenger traffic and have little general aviation activity. These large airports are more prone to delays than smaller, less-congested GA airports.

By contrast, the more numerous general-aviation airports have shorter runways and smaller facilities that are designed for private flyers, from student pilots to business aircraft and charter flights. Most of these smaller noncommercial airports do not have airline service. In some rural areas, GA airports are the only air transportation link to the rest of the country. In major metropolitan areas, smaller airports that cater to general aviation are called “relievers” because they offer light aircraft a less-expensive and more convenient alternative to operating from congested commercial airports.

The public-use GA airports are not only important to air travelers because they serve as portals to

## Top 20 U.S. Airports Ranked by Itinerant GA Operations (2012)

Rank	Airport	State
1	Daytona Beach International (DAB)	FL
2	Van Nuys (VNY)	CA
3	Phoenix Deer Valley (DVT)	AZ
4	Centennial (APA)	CO
5	Kendall-Tamiami Executive (TMB)	FL
6	Fort Lauderdale Executive (FXE)	FL
7	Orlando Sanford International (SFB)	FL
8	Republic Airport (FRG)	NY
9	Long Beach Daugherty Field (LGB)	CA
10	John Wayne Orange County (SNA)	CA
11	Teterboro (TEB)	NJ
12	Boeing Field/King County International (BFI)	WA
13	DeKalb-Peachtree (PDK)	GA
14	Montgomery Field (MYF)	CA
15	Falcon Field (FFZ)	AZ
16	Westchester County (HPN)	NY
17	Melbourne International (MLB)	FL
18	David Wayne Hooks Memorial (DWH)	TX
19	McClellan-Palomar (CRQ)	CA
20	Ernest A. Love Field (PRC)	AZ

Source: FAA Air Traffic Activity Data System, 2013

## Top 20 U.S. Airports Ranked by Itinerant Air Carrier Operations (2012)

Rank	Airport	State
1	Atlanta Hartsfield International (ATL)	GA
2	Chicago O'Hare International (ORD)	IL
3	Los Angeles International (LAX)	CA
4	Denver International (DEN)	CO
5	Dallas-Fort Worth International (DFW)	TX
6	Phoenix Sky Harbor International (PHX)	AZ
7	John F. Kennedy International (JFK)	NY
8	Las Vegas McCarran International (LAS)	NV
9	Charlotte-Douglas International (CLT)	NC
10	San Francisco International (SFO)	CA
11	Miami International (MIA)	FL
12	Seattle-Tacoma International (SEA)	WA
13	Minneapolis-St. Paul International (MSP)	MN
14	Bush Houston Intercontinental (IAH)	TX
15	Orlando International (MCO)	FL
16	Newark Liberty International (EWR)	NJ
17	LaGuardia (LGA)	NY
18	Boston Logan International (BOS)	MA
19	Philadelphia International (PHL)	PA
20	Detroit Metro Wayne County (DTW)	MI

Source: FAA Air Traffic Activity Data System, 2013

the national and international air transportation system; they also are engines for local economies, creating business opportunities and making the airfields important community assets that provide significant quality-of-life benefits to the communities in which they are located.

The national and international network of airports is weakened each time an airfield is closed or when artificial constraints on usage – curfews, noise limits or other operating restrictions – are imposed. Such limits can cut a local community's transportation and economic lifeline to the rest of the world.

### A LIFELINE TO COMMUNITIES

The importance of business aviation to the economic fabric of the United States can be found in the stories of numerous successful companies that rely on business aircraft to connect them with communities across the country.

Sanderson Farms is representative of the many small and medium enterprises that use business aviation to outperform many of its peers. The Laurel, MS company is a fully integrated poultry processing company engaged in the production, processing, marketing and distribution of fresh and frozen chicken products. Its five aircraft are used by executives, technical people and quality managers to easily access the company's facilities in Georgia, Louisiana, North Carolina, Mississippi and Texas.

In explaining the company's dramatic growth, Sanderson Farms Flight Department Manager Zane Lambert said, "I wouldn't attribute all of it to business aviation, but the types of locations where we grew our



## CRUTCHFIELD CORPORATION

### Many Gain From One Plane

Crutchfield Corporation – a specialty direct retailer of consumer electronics – had considered setting up a new call center at its headquarters in Charlottesville, VA, but that community’s low unemployment rate would have made it difficult to add personnel. So the company decided to set up a remote call center.

“We wanted to keep the new center in Virginia for tax reasons, so we initially considered Norfolk, which has a great airport, a superb economic development program, fabulous fiber-optic phone lines, commercial buildings and a great workforce,” explained founder Bill Crutchfield.

But instead of choosing Norfolk, Crutchfield made a “counterintuitive decision” and set up shop in Wise, which is six-hour drive from Charlottesville, but only an hour-long flight in his King Air C90B. Soon the company airplane began flying personnel trainers into Wise to start hiring.

Crutchfield faced numerous challenges in establishing its Wise center, but today the operation is “platinum-standard and state of the art,” and Crutchfield has helped government officials promote the region. As a result, other companies have established facilities in the area, creating approximately 2,000 jobs.

“These new call-center employees are buying houses, furniture and cars, and taking their families to restaurants – all things that stimulate economic activity,” Crutchfield said proudly.

business were in smaller communities with very limited or no airline service. The community where our home office is has no airline service at all. It would be impossible for us to do business and grow our business without our aircraft.”

“Sanderson Farms has always been very conservative,” added Lambert, “and we have a long-term 15- to 20-year plan. The aircraft are assimilated into that plan. Just because the economy is down doesn’t mean we’re going to dump our aircraft. They are an indispensable part of how we do business.”

Another smaller company that uses business aviation to compete on a national basis is Fort Wayne, IN-based LaBov & Beyond Marketing Communications. The company’s business aircraft – a Cessna Citation CJ1 that is based at a local airport infrequently served by the airlines – enables the firm’s employees to live where they want (in the Midwest), but attract and work with clients in

such distant business centers as New York City.

CEO Barry LaBov says that using a business aircraft has meant that the company can compete with larger, national marketing firms, while enabling staff to reside with their families in Fort Wayne. “We have an established community and people who love being in the Midwest,” says LaBov. “For us to move is just not viable; it’s not an option.”

### COMPETITIVE ASSETS FOR COMPANIES

Clearly, utilizing business aircraft makes companies more accessible and responsive. But does aircraft use help enhance a company’s operating or financial performance and contribute to higher shareholder value in the long term? In other words, is the use of a business airplane a sign of a well-managed company?

According to study after study, the unequivocal answer is “yes.”

For example, in the first of its studies conducted between 2009 and 2013 on business aviation and shareholder value, Washington, DC-based NEXA Advisors concluded that Standard & Poor’s (S&P) 500 companies that use business aircraft outperform those that do not. The study also found that using nonfinancial measures, the highest performing companies appearing on several “Best of” lists revealed a remarkable correlation with business aircraft use:

- ◆ Among *Business Week’s* “50 Most Innovative Companies,” 95 percent of the S&P 500 companies on that list were users.
- ◆ Among *Fortune’s* “100 Best Places to Work,” 86 percent of the S&P 500 companies on that list were users.
- ◆ Among *Business Week’s* “25 Best Customer Service Companies,” 90 percent of the S&P 500 companies on that list were users.
- ◆ Among *Business Week/Interbrand’s* “100 Best Brands,”

98 percent of the S&P 500 companies on that list were users.

- ◆ Among *Fortune's* "50 World's Most Admired Companies," 95 percent of the S&P 500 companies on that list were users.
- ◆ Among The CRO's "100 Best Corporate Citizens," 90 percent of the S&P 500 companies on that list were users.

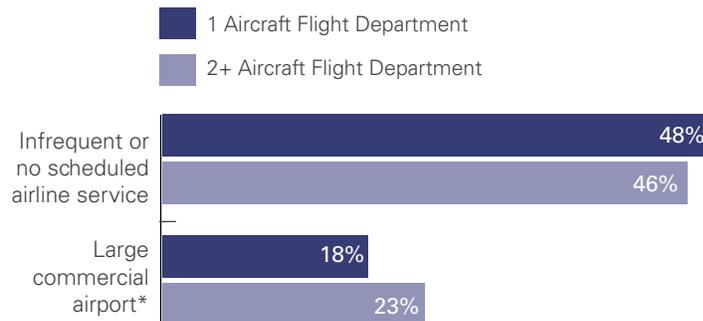
The S&P 500-focused study also confirmed that America's best-performing and most-admired companies rely on business aviation to provide competitive benefits that are reflected in shareholder and enterprise value.

NEXA Advisors' 2010 study revealed that small and medium enterprises (SMEs) also use business aviation to better compete and grow their businesses. An examination of how the S&P SmallCap 600 companies performed in terms of enterprise value, revenue growth, profit growth and asset efficiency from 2005 through 2009 showed that SMEs that used business aviation consistently outperformed nonusers in important shareholder measures:

- ◆ Business aviation users were more successful at returning value to shareholders, with total return (stock price appreciation plus dividends) that was 245 percent higher than that of nonusers.

- ◆ Operationally, users generated more income based on productivity and efficiency, outperforming both in earnings before interest, taxes, depreciation and amortization (EBITDA) and in earnings (230 percent and 219 percent higher, respectively).
- ◆ By maximizing output from their resources, business aircraft users were able to provide superior return on assets, return on equity and asset turnover (70 percent, 40 percent and 21 percent higher, respectively).
- ◆ Users were able to tap more new business opportunities, with 22 percent higher average revenue growth.
- ◆ Investors rewarded the users for their business success. Market capitalization growth for users was 11 percent higher than nonusers.
- ◆ During the "Great Recession," the worst financial crisis in recent history, SMEs that used business aircraft were affected less by the downturn than nonusers: 69 percent of these companies posted greater top line growth in 2008 and 2009.

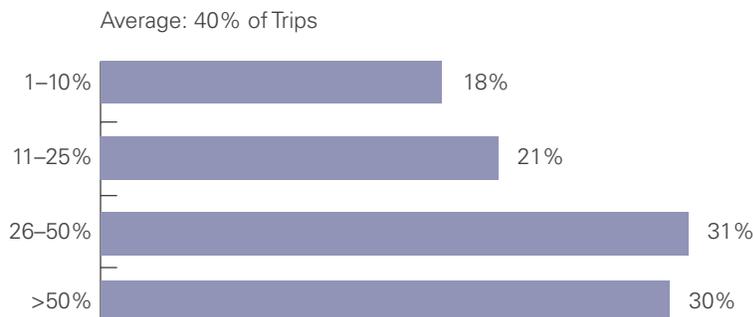
### Types of Airports Flown Into by Number of Aircraft



Source: Harris Interactive Survey, 10/2009

\* General aviation represents, at most, 4% of total operations at the nation's top 10 airports (FAA Air Traffic Activity Data System).

### Percentage of Trips to Communities That Never Had Scheduled Airline Service



Source: Harris Interactive Survey, 10/2009

The financial results for large companies and SMEs indicate that for any size business – small, medium or large – companies using business aircraft consistently outperform companies that do not in terms of shareholder and enterprise value created.

In 2012, NEXA Advisors found that even during the worst economic times since the Great Depression, companies that used business aviation outperformed the field in shareholder value and recovered from the Great Recession more quickly than their peers across a range of industries representing the U.S. economy.

## Seven Key Enterprise Value Drivers Resulting From Business Aircraft Utilization

	Financial	Nonfinancial
<b>Enterprise Value Drivers</b> (typically found as result of business aircraft use)	Revenue Growth	Customer Satisfaction
	Profit Growth	Employee Productivity, Motivation and Satisfaction
	Asset Efficiency	Innovation
		Risk Management and Compliance

Studies show that there is a clear correlation between business aircraft utilization, the associated benefits of use, and the key financial and nonfinancial drivers of enterprise value.

Source: NEXA Advisors, 2010

Generally speaking, during this period companies not using business aviation lost profitability, employees, and even dropped off the S&P 500 rankings at far higher rates than business aviation users.

The most recent NEXA Advisors study, published in 2013, demonstrated that top-performing companies around the world utilize business aviation as a critical tool.

Recent statistics published by Honeywell and other sources confirm that business aircraft purchases outside North America have grown significantly. These growth rates strongly correlate with growth of the value of the top performing companies that use business aviation in these regions.

The 2013 study examined “Best of the Best” global lists for users and non-users, and findings included:

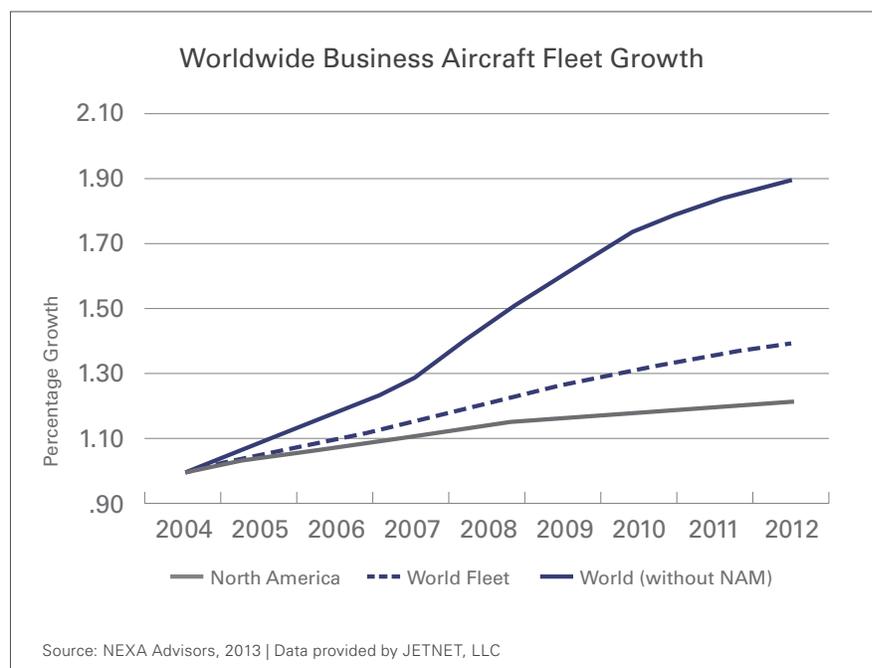
- ◆ Among the “Global 2000,” a compilation of leading companies produced by *Forbes*, 88 percent of the top 50 were business aircraft users.
- ◆ Among the “Global 500,” a *Fortune* compilation of the top global companies by revenues,

88 percent of the top 50 were business aircraft users.

- ◆ Among the “Best Global Green Brands,” an Interbrand compilation of the world’s top brands using sustainable business practices, 94 percent of the top 50 were business aircraft users.
- ◆ Among the “World’s Most Admired Companies,” a compilation of the world’s top companies by corporate reputation, produced by *Fortune*, 98 percent of the top 50 were business aircraft users.

- ◆ Among the “World’s Best Multinational Workplaces” list by Great Place to Work, 88 percent were business aircraft users.

In each study, the findings are the same: companies using business aviation routinely out-perform similar companies that do not use business aviation. That means, using business aviation is the sign of a well-managed company – which is true for companies of all types and all sizes, all around the world.



## ■■■ BUSINESS AVIATION MEANS HELPING COMMUNITIES IN CRISIS

It's a fact: Business aviation is often on the front line in lending a hand to citizens and communities in times of crisis. Although business aircraft are mostly flown to help companies meet their business objectives, not all flights are solely for business reasons. According to the General Aviation Manufacturers Association, general aviation conducted more than 15,000 flights in one recent year in support of missions for humanitarian purposes.

Business aircraft are uniquely suited to providing a first response to natural disasters and other crises because they can operate on short notice into outlying airports with small and sometimes unpaved runways, or even onto roads, that are inaccessible to airliners or automobiles. During a crisis, when other means

of transporting food, supplies and medical specialists into devastated or remote areas are unavailable, business aircraft are literally lifesavers.

### GIVING AID TO THOSE IN NEED

In the aftermath of 2012's Superstorm Sandy, business aviation operators donated their aircraft and

time to fly food, medical supplies, water and other necessities to the New York and New Jersey communities that were hardest hit.

The earthquake that struck the small island nation of Haiti in January 2010 was another prime example of how business aircraft opera-



### Fast Facts

- ✎ New York-area helicopter operators came to the rescue in the aftermath of Superstorm Sandy in 2012, delivering more than 12 tons of urgently needed supplies to one the areas hit hardest by the storm.
- ✎ In the wake of the devastating earthquake that struck Haiti in early 2010, business aircraft conducted more than 700 flights, transporting more than 3,500 passengers and delivering more than 1,400,000 pounds of critical supplies to relief groups on the island.
- ✎ Of companies in a 2009 Harris survey that flew humanitarian missions, 69 percent flew between one and five trips, 13 percent between six and 10 trips and another 16 percent more than 10 trips that year.



tors can quickly mobilize in times of crisis to help solve the transportation challenges facing government agencies and nongovernmental relief organizations. Nearly 100 business aircraft flew the first mercy flights in the days immediately after a local airport re-opened, thus providing a lifeline to Haiti. In the weeks that followed, the types of aircraft that flew desperately needed food, supplies and medical personnel to the island nation reflected the diversity of the business aviation fleet – aircraft from single- and multi-engine piston-powered airplanes, to turboprops, helicopters and jets all flew relief missions.

Similarly, when Hurricane Katrina ravaged the Southeast United States in 2005, business aircraft operators were among the first to come to the rescue of Gulf Coast residents. Re-

lief officials estimated that business aircraft brought 130,000 pounds of supplies into the region in the weeks immediately after the record-setting hurricane.

Sometimes business airplanes are used to supplement the capabilities of government agencies. For example, during wildfire season in Montana, general aviation aircraft are contracted by state firefighting agencies and the U.S. Forest Service to help keep fires under control. These airplanes take aerial spotters aloft to direct emergency and fire control services below.

#### **LENDING A HELPING HAND EVERY DAY**

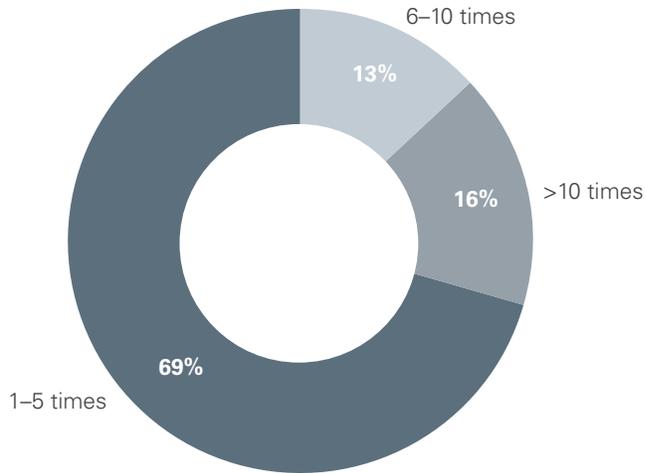
Although business aircraft are indispensable transportation tools in times of crisis, they are also used to fly mercy missions every day.

Business airplanes and helicopters are used in air ambulance and emergency medical services daily in support of a variety of humanitarian and philanthropic organizations, including the Red Cross, Air Care Alliance, Angel Flight, Corporate Angel Network, Honor Flight, Veterans Airlift Command, the Special Olympics and others.

These organizations use the aircraft for critical, often life-saving missions – to transport patients to distant hospitals or treatment centers, to deliver organs, blood or serum for clinical use, to reunite military veterans with their families, to respond to local emergencies such as fires, floods or security threats, and for a host of other purposes.

For example, Corporate Angel Network (CAN) arranges free flights

### Number of Times Business Aircraft Flown for Humanitarian Reasons



Source: Harris Interactive Survey, 10/2009

to treatment centers for cancer patients using the empty seats on business aircraft. With the support of more than 500 American companies, CAN has transported more than 42,000 patients since its founding, and today provides 3,000 patient flights per year.

Angel Flight was created by a group of pilots who believe in the benefit of volunteering and strive to keep all aspects of the organization volunteer-based. This non-profit charitable organization arranges free air transportation to individuals and health care organizations for any legitimate medical need.

Another organization, the Veterans Airlift Command, uses business aircraft to provide free air transportation to wounded warriors, veterans and their families for medical and other

## PROFILE



## C&S WHOLESALE GROCERS

### Humanitarian Flights Are the Heart of Business Aviation

Business aircraft provide the speed, flexibility, efficiency and productivity that companies need to compete in today's competitive global marketplace. However, despite the breakneck pace of business today, many aircraft operators still find time to use their airplanes to help those in need.

One such company is Keene, NH-based C&S Wholesale grocers, one of the largest wholesale food distribution companies in the country. The company first chartered a Beech King Air in the mid-1990s, and with so many of its customers and vendors located far from major airports, C&S soon purchased its own business aircraft.

C&S has been involved in humanitarian flying for years, serving as a member of Corporate Angel Network, Sky Hope Network and AERObridge, through which the company dispatched its 900XP to Haiti following the devastating earthquake of 2010. Other missions of mercy have included flying medical supplies on its Challenger 300 from Dillant Hopkins Airport in New Hampshire to Teterboro Airport in New Jersey following Superstorm Sandy in 2012, and transporting a toddler needing specialized cancer treatments in 2011.

Vice President of Aviation Joe Briggs feels that companies and pilots who fly such missions get as much out of it as the patients they carry. "For us, flying is pretty routine, but these missions are special. We are gratified that what we do day-to-day can be a small part of making things easier for these folks."

purposes through a national network of volunteer aircraft owners and pilots. To date, the organization has flown more than 1.3 million miles in support of completed missions.

Additionally, Honor Flight Network coordinates missions by general aviation airplanes so military veterans can fly to Washington, DC, free of charge to visit the memorials to the wars they served in. For many aging veterans of World War II in particular, Honor Flight was the only way they were able to make the trip. Founded in 2005, the organization flew more than 98,500 veterans of World War II, Korea and Vietnam by the end of the 2012 flying season.

June 2014 will mark the third time the Special Olympics National Games will be held in the United States, and the seventh time that Cessna Aircraft Company is coordinating its Citation Special Olympics Airlift, which enables companies to donate their time and their Citation aircraft to help transport participants to and from the event. In 2010, 161 Citations transported 830 athletes and coaches.

Aircraft operators who are new to charitable flying and want to identify which organization might benefit most from their services often contact The Air Care Alliance, a nationwide league of humanitarian flying organizations whose volunteer pilot members are dedicated to community service. The group serves as a clearinghouse for free air transportation services provided by volunteer pilots and dozens of charitable aviation groups. Participating pilots perform public benefit flying for health care, patient transport, disaster relief, educational experiences for youth, environmental support and other missions of public service.



Photo courtesy of Robert A. McKenzie

## BUSINESS AVIATION HEROs

### Prompt Aid for Victims of Storms and Disasters

When disaster strikes, the business aviation community acts. In the aftermath of Superstorm Sandy in 2012, people and organizations from across the business aviation community mobilized to coordinate pilots, aircraft, flight-planning services and other assets to move relief and supplies into the disaster area.

Facilitating such relief efforts is NBAA's Humanitarian Emergency Response Operator (HERO) database, which allows companies to register their general aviation aircraft, volunteers and other assets for deployment on short notice.

Other companies partner up with non-profit relief organizations like AERObridge. Following Sandy, the Arizona Business Aviation Association (AZBAA) teamed up with AERObridge to successfully transport nearly 8,000 pounds of donated supplies to New York and New Jersey. "It was wonderful to be able to demonstrate what business aviation can do for the community," said AZBAA President Ken Casey. "We had unbelievable support from the companies involved."

In May 2011, attorney Robert McKenzie was among those who responded to the needs of survivors of the tornado that devastated Joplin, MO. An airlift by Chicago-area businesses was assembled in less than 24 hours and involved aircraft ranging from single-engine piston airplanes to jets.

"Business airplanes are meant to get company personnel from point to point quickly. When used for disaster relief, that advantage is magnified," said McKenzie. "Just in my Cessna 182, I carried thousands of surgical gloves, basic necessities like toothpaste and toothbrushes, shampoo, soaps, clothing, blankets, survival supplies and even 20 tarps," he noted.

A few months later, as Hurricane Irene gathered strength over the Caribbean in August 2011, some pilots didn't wait for the storm to make landfall. Bob Showalter, chairman of Orlando's Showalter Flying Service, flew supplies to the Bahamas in his Piper Aztec the day before the hurricane hit. Other Florida-based aircraft soon joined in. Showalter Flying Service and another fixed base operator, Banyan Air Service, also paired up to provide their facilities as bases for the airlift.

## MAKING SAFETY AND SECURITY TOP PRIORITIES

It's a fact: Safety and security have always been top priorities for business aircraft operators. The record for business aviation safety is comparable to that for the commercial airlines, and the industry employs a host of voluntary and regulatory measures to ensure airports, airplanes, pilots and passengers are secure.

Business airplanes, which are among the most sophisticated aircraft flying, are equipped with the latest safety equipment, including collision avoidance systems, ground proximity warning systems, severe-weather detection units, head-up displays and enhanced and synthetic vision systems.

In addition, business aircraft professionals are among the most highly

trained personnel in the aviation industry. Pilots and maintenance technicians are required to undergo extensive initial instruction in order to qualify to operate and maintain business aircraft, and recurrent training ensures that the skills of these professionals remain sharp.

Perhaps most importantly, the business aviation community is committed to the furtherance of a safety cul-

ture that is engrained in the people and organizations that fly business aircraft. Dedicated operators have a mindset that sees safety as a way of life in which a systematic, unwavering adherence to safe, standard operating procedures is paramount.

To ensure the widespread use of safety best practices throughout the industry, NBAA provides aircraft operators with guidance on all



### Fast Facts

- ✦ Business aviation has achieved a safety record that is comparable to that of the major airlines.
- ✦ Besides complying with stringent government safety and security regulations, business aircraft operators participate in a variety of voluntary programs designed to enhance safety and security.
- ✦ Numerous federal officials, including the inspector general of the Department of Homeland Security, have found that general aviation "does not present a serious homeland security vulnerability."



matters related to the safe operation of aircraft, both in the air and on the ground. The NBAA Safety Committee also created a list of Top 10 Safety Focus Areas to make operators aware of areas for improvement and available association resources. Additionally, for 60 years NBAA has presented Flying Safety Awards to recognize companies for exceptional achievement in maintaining safe flying operations.

### **SAFETY MANAGEMENT SYSTEMS AND IS-BAO**

Safety management systems (SMS) are the logical extension of the industry's ongoing commitment to enhancing safety. Through the use of a formal SMS, aircraft operators can proactively identify potential hazards and systematically manage those risks.

The International Civil Aviation Organization, which establishes worldwide standards for aviation, has specified that an SMS require-

ment be incorporated into national safety regulations for operators of non-commercial aircraft weighing more than 12,500 pounds maximum takeoff weight or those that are turbojet-powered, which covers most business airplanes.

To meet this SMS requirement, the International Business Aviation Council, of which NBAA is a founding member, developed the International Standard for Business Aircraft Operations (IS-BAO). This code of best practices is designed to help flight departments worldwide achieve high levels of safety and professionalism.

At the core of the IS-BAO standard is a scalable SMS tool that can be used by any business aircraft operator, from a single-aircraft/single-pilot operation to a large multi-aircraft flight department. Many national regulatory agencies have recognized and endorsed IS-BAO as a preferred way to meet the SMS requirement.

### **VOLUNTARY PARTICIPATION IN SAFETY PROGRAMS**

Besides meeting stringent government safety regulations, business aircraft operators are involved in a number of voluntary programs designed to reduce accidents and incidents. For example, some flight departments participate in flight operational quality assurance programs, which collect and analyze data recorded during flight to improve the safety of flight, air traffic control procedures, and airport and aircraft design and maintenance.

Many business aircraft operators also encourage their personnel to participate in NASA's Aviation Safety Reporting System (ASRS). This program provides a forum in which pilots, flight attendants, mechanics, ground personnel, air traffic controllers and others can voluntarily share information about unsafe situations that they have encountered or observed.

## SECURITY A TOP PRIORITY

For entrepreneurs and companies that rely on business aircraft, security is their highest priority. In fact, one of the reasons why companies utilize business aircraft is for the high level of security they provide.

Business aviation has been a leader in travel security for decades, and in the years since the 9/11 terrorist attacks, the industry has continued working to protect airports, aircraft, aircrews and passengers from terrorist threats. Actions taken include:

- ◆ Pilots at small airports report suspicious activity via a toll-free Airport Watch Program number staffed 24/7 by TSA officials.
- ◆ The aircraft manufacturing and sales community has procedures in place to report suspicious financial transactions during the purchase or sale of an aircraft.
- ◆ U.S. law-enforcement agencies

crosscheck the FAA's airman and aircraft registries against known terrorist and criminal databases.

- ◆ The FAA issues tamper-proof licenses for aviation personnel.
- ◆ Pilots are always required to carry tamper-proof identification.
- ◆ The flight-training industry complies with strict government standards that screen non-U.S. citizens seeking flight training in the U.S.
- ◆ As commercial operations, chartered business aircraft weighing more than 12,500 pounds must comply with TSA-mandated security procedures similar to those of the airlines.
- ◆ Business aircraft flying to or from the U.S. must provide aircraft data and passenger manifests to Customs and Border Protection prior to departure.
- ◆ The industry continues exploring ways to make emerging proposals

from the TSA and other agencies workable and effective.

These and other steps have been effective in protecting the industry from security threats. Numerous federal officials, including the Department of Homeland Security inspector general, have found that general aviation "does not present a serious homeland security vulnerability."

NBAA and the business aviation community will continue to advocate for policies that enhance the security of business aviation without unnecessarily disrupting the mobility and flexibility that it requires.

The industry will also continue to work with federal security officials to review existing programs, evaluate the need for enhancements and help the government allocate scarce resources where they can be most effectively utilized.

## PROFILE



## BISSELL, INC.

### A Clean Safety Record Built on Trust in a Family Atmosphere

Employing tools that help sustain a business and contribute to its growth is a tradition at Bissell that began with the founders, Melville and Anna Bissell, who owned a crockery shop in Michigan. Cleaning up the sawdust that protected the products they received from suppliers was a time-consuming task, so Melville invented and patented a carpet sweeper that changed the company's direction. Still family owned, succeeding generations built the company that today offers a full range of tools that sweep, vacuum and deep clean floors and carpets.

In 1956, Melvin R. Bissell started the flight department with a Cessna 172 that he himself flew. Today the company flies a Challenger 300 and Lear 45 with a staff of seven and three contract pilots. Headquartered in Grand Rapids, MI, most of their flights are regional, 500-mile flights that support the Homecare Division, said Director of Aviation Clint Fereday.

From the start, safety has been an unassailable priority, and in 2013, the company received NBAA's 50 Year Safe Flying Achievement Award. "We strive to be best in class in all we do," said Fereday, adding that the company has earned its IS-BAO Stage II certification. Given the benefits of the atmosphere of a family within a family, when contemplating new members of the aviation staff, he recommends, "hire the personality, not the type rating, and insist on engagement and personal accountability," said Fereday. "We have a contract of trust between us, and as a result, the principals are well taken care of."

### Aircraft Accident Rates per 100,000 Flight Hours (2003–2012)

Year	General Aviation* Total/Fatal	AirTaxi** Total/Fatal	Commuter Air Carriers*** Total/Fatal	Airlines**** Total/Fatal	Corporate/Executive† Total/Fatal	Business†† Total/Fatal
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	0.167/0.011	0.070/0.014	0.56/0.21
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
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
2012P	6.44/1.17	1.07/0.25	1.304/0.000	0.146/0.000	0.141/0.025	0.48/0.13

Source: Compiled by Robert E. Breiling Associates, Inc., 2013, based on NTSB and FAA data

\*All U.S.-registered civil aircraft not operating under FAR Part 121 or 135

\*\*FAR Part 135 non-scheduled air carriers

\*\*\*FAR Part 135 scheduled air carriers

\*\*\*\*FAR Part 121 scheduled and non-scheduled air carriers

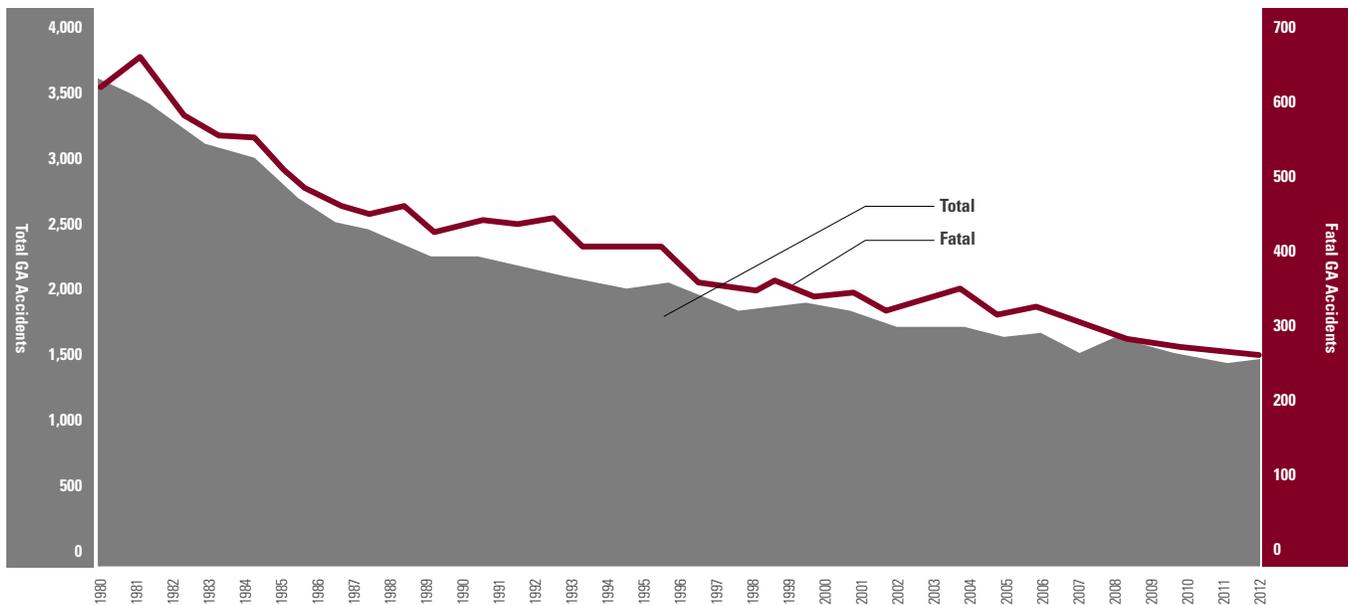
†Aircraft owned or leased and operated by a corporation or business firm for the transportation of personnel or cargo in the furtherance of the corporation's or firm's business and which are flown by professional pilots receiving a direct salary or compensation for piloting.

††The use of aircraft by pilots (those not receiving direct salary or compensation for piloting) in conjunction with their occupation or in the furtherance of a business.

†††NTSB accident data for the corporate/executive fleet in 2008 does not agree with Robert E. Breiling Associates data. Several accidents are missing from NTSB data in comparison to Breiling data.

P = Preliminary data.

### Total Accidents and Fatal Accidents in U.S. General Aviation (1980–2012)



P = Preliminary, R = Revised

Source: General Aviation Manufacturers Association, 2012

## ■■■ A CONTINUING RECORD OF ENVIRONMENTAL STEWARDSHIP AND PROGRESS

It's a fact: Business aviation emissions are only a tiny fraction of all transportation emissions, and the industry has continually leveraged technology to continue building on the work done to minimize the environmental footprint of aircraft.

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

The industry has long supported technology investments and championed operational practices to continually reduce aircraft emissions, which include carbon dioxide (CO<sub>2</sub>) and greenhouse gases (GHG).

For example, business aircraft manufacturers pioneered wing-lets for aircraft, which optimize performance and flight range, and contribute to a more efficient fuel burn, thereby reducing emissions. This equipment is now in place on a large number of general aviation and commercial aircraft.

In addition, the industry continues to reduce engine emissions by applying new technologies, which

means that today's aircraft engines are cleaner, quieter and more fuel-efficient than ever.

Operational improvements advanced by business aviation also have resulted in National Airspace System efficiencies that help the environment. Several years ago, NBAA Members began equipping aircraft, at their own cost, with cockpit technology that enabled reduced vertical separation minimums (RVSM),



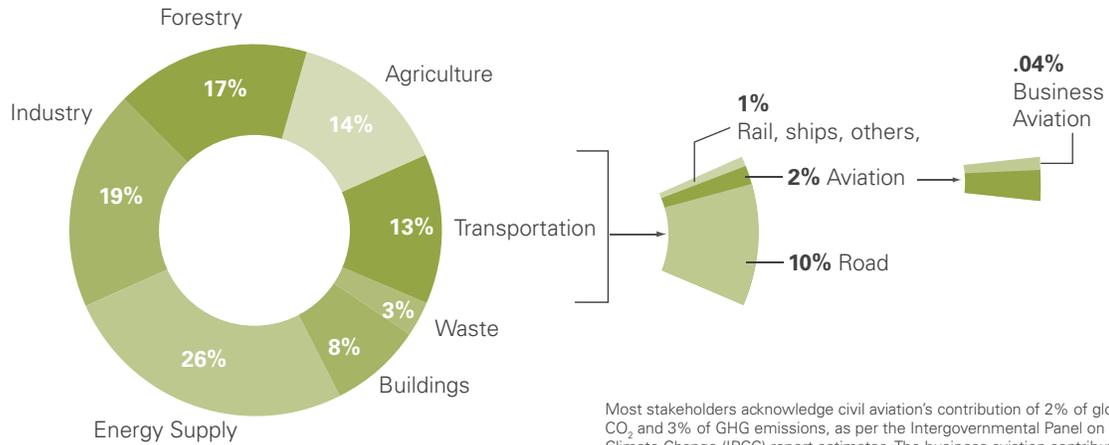
### Fast Facts

- ✎ General aviation aircraft, including those used for business aviation, account for just 0.6 percent of U.S. transportation carbon emissions and a mere 0.2 percent of total global greenhouse gas emissions.
- ✎ The industry continues to reduce engine emissions by applying new technologies, which means that today's aircraft engines are cleaner, quieter and more fuel-efficient than ever.
- ✎ Operational improvements advanced by business aviation also have resulted in National Airspace System efficiencies that help the environment.

**“Although business aviation has a tiny carbon footprint, the industry is committed to further minimizing its impact on climate change.”**



## Contributors to Global Emissions



Most stakeholders acknowledge civil aviation's contribution of 2% of global CO<sub>2</sub> and 3% of GHG emissions, as per the Intergovernmental Panel on Climate Change (IPCC) report estimates. The business aviation contribution is estimated at 2% of aviation emissions or 0.04% of global emissions.

Source: "Business Aviation Commitment on Climate Change," GAMA/IBAC, 2010

## NBAA SUPPORTS BALANCED, EFFECTIVE APPROACH TO ENVIRONMENTAL POLICY

NBAA believes that when it comes to general aviation operations, environmental stewardship is an imperative. The association continually works to develop reasonable and balanced policies that support the industry's twin goals of promoting the mobility and growth of business aviation while minimizing its environmental footprint, in terms of both greenhouse gas and noise emissions.

General aviation aircraft account for a tiny fraction of transportation emissions. The industry's continually improving record is thanks to an ongoing focus on the development of engines, aircraft and operating procedures that reduce emissions. Today, general aviation turbine engines are an average of 30 percent more fuel efficient than those certified in 1976, and 50 percent more fuel efficient than those introduced in the 1960s.

Since the late 1960s, NBAA has been actively engaged in reducing business aircraft noise emissions through efforts such as its Noise Abatement Program. More recently, the association has promoted environmental protection and fuel efficiency through its involvement in industry work groups and government initiatives.

Specifically, NBAA has addressed global environmental issues through its participation on the International Civil Aviation Organization's Committee on Aviation Environmental Protection (ICAO CAEP) as an International Business Aviation Council (IBAC) representative, and it has addressed domestic environmental issues through its participation on the U.S. Joint Programs Development Office's (JPDO) Next Generation initiative.

NBAA also has created an Environmental Issues (EI) Focus Group composed of both staff members and external stakeholders (representing both industry groups and aircraft/engine manufacturers) to develop specific guidance for its Members and the industry.

Looking to the future, NBAA and its Member Companies will continue to explore ways to further reduce the industry's environmental footprint. One effective way to reduce emissions is to continue the work already done to implement a more efficient NextGen aviation system based on satellite technology. FAA data has shown that the full implementation of NextGen air traffic management technologies could reduce aviation emissions by up to 12 percent by 2025.

effectively doubling the system's airspace capacity.

Also, general aviation was at the forefront of the development of automatic dependent surveillance – broadcast, the cornerstone technology of the FAA's NextGen program to modernize and expand the air traffic control system through the use of satellite-based and digital technologies.

NBAA also continues to support further development of area navigation (RNAV) and required navigation performance (RNP) procedures, which produce efficiencies by enabling operators to custom-tailor flight paths, thereby minimizing fuel burn and noise, while preserving operational safety.

**“NBAA believes that when it comes to general aviation operations, environmental stewardship is an imperative. General aviation aircraft account for a tiny fraction of transportation emissions.”**

Never content to rest on the progress made thus far, the business aviation community is committed to further minimizing its impact on climate change.

As evidence of NBAA's commitment to minimizing climate change, the association joined with the U.S. Department of Transportation and the U.S. Department of Agriculture in April 2013 to launch a new initiative aimed at furthering the development of a jet fuel that is not only a renewable resource, but is also completely free of carbon pollutants. NBAA is one of more than 300 members of

the Commercial Aviation Alternative Fuels Initiative, which has the goal of creating a carbon-neutral air fleet by the year 2020. NBAA also is a member of the General Aviation Avgas Coalition, which is supporting development of possible replacements to the 100 low-lead aviation gasoline that many piston-powered general aviation aircraft use today.

### **A MULTI-FACETED APPROACH TO ENVIRONMENTAL PROTECTION**

The introduction of ever-more sophisticated technology, materials and fuels, along with investment and timely implementation of a satellite-based, Next Generation Air Traffic Control system, will help business aviation meet its goal of continued carbon reduction. The growing array of tools that the industry will use to reach its environmental goals include:

- ◆ **Fuel efficiency.** The fuel efficiency of business aircraft has improved 40 percent over the past 40 years. The industry is committed to decrease fuel consumption further so that a business aircraft built in 2050 will be far more fuel-efficient than one manufactured in 2005.
- ◆ **Alternative fuels.** Research continues in the search for commercially viable, sustainable alternative aviation fuels, which hold the promise of substantial reductions in GHG emissions. Continued emphasis on funding research and development will be key to achieving by 2050 a possible CO<sub>2</sub> life-cycle reduction of 40 percent (in absolute terms) from biofuels.

In November 2012, the National Research Council of Canada flew the first civil jet (a Dassault Falcon 20 business jet) powered

by 100-percent unblended biofuel, a significant milestone in the effort to develop alternative fuels. Applied Research Associates and Chevron Lummus Global, using oilseed crops commercialized by Agrisoma Bioscience, refined the biofuel used for the flight.

- ◆ **Operational and infrastructure improvements.** Between 6 and 12 percent in fuel savings and lower CO<sub>2</sub> emissions are likely to come from improved efficiency of the air traffic management and communications, navigation and surveillance systems.
- ◆ **Aircraft noise.** Ever since the introduction of jets, business aircraft operators, manufacturers and airports have developed programs to reduce aircraft noise. “Quiet flying” procedures are in widespread use, and older, noisier aircraft have been phased out of service.
- ◆ **Smart development.** Airport and government officials also have worked to ensure that the land adjacent to airfields only is developed in ways that are compatible with the airport. In addition, governments have provided money to fund the soundproofing of buildings located near airports where necessary.

### **THINK GLOBALLY, ACT LOCALLY**

Although its impact is relatively minimal, business aviation is committed to continuing the environmental stewardship it has demonstrated through decades of leadership in developing and implementing technologies and procedures that reduce environmental impacts.

## LINKS

This *NBAA Business Aviation Fact Book* provides a useful introduction to business aviation and the value it provides to citizens, companies and communities all across the U.S. For more information and resources about the industry, visit any of the web sites below, or contact the NBAA staff members listed.

### NBAA RESOURCES

**NBAA Home Page**  
[www.nbaa.org](http://www.nbaa.org)

**Business Aviation Fact Book**  
[www.nbaa.org/factbook](http://www.nbaa.org/factbook)

**Member Profiles**  
[www.nbaa.org/membership/profiles](http://www.nbaa.org/membership/profiles)

**What Is Business Aviation?**  
[www.nbaa.org/business-aviation](http://www.nbaa.org/business-aviation)

**Types of Business Aircraft**  
[www.nbaa.org/business-aviation/aircraft](http://www.nbaa.org/business-aviation/aircraft)

**Business Aircraft Uses**  
[www.nbaa.org/business-aviation/uses](http://www.nbaa.org/business-aviation/uses)

**General Aviation Airport Facts**  
[www.nbaa.org/airportshandbook](http://www.nbaa.org/airportshandbook)

**Airport Advocate Guide**  
[www.nbaa.org/publications](http://www.nbaa.org/publications)

**Business Aviation Legislative and Regulatory Issues**  
[www.nbaa.org/issues](http://www.nbaa.org/issues)

**Business Aviation Safety**  
[www.nbaa.org/safety](http://www.nbaa.org/safety)  
[www.nbaa.org/safetyawards](http://www.nbaa.org/safetyawards)

**Safety Management Systems**  
[www.nbaa.org/sms](http://www.nbaa.org/sms)

**Business Aviation Security**  
[www.nbaa.org/security](http://www.nbaa.org/security)  
[www.nbaa.org/advocacy/issues/security](http://www.nbaa.org/advocacy/issues/security)  
[www.nbaa.org/ops/security/programs](http://www.nbaa.org/ops/security/programs)

**Best Practices for Business Aviation Security**  
[www.nbaa.org/ops/security/best-practices](http://www.nbaa.org/ops/security/best-practices)

**Environmental Policy**  
[www.nbaa.org/ops/environment](http://www.nbaa.org/ops/environment)

**Noise Abatement Program**  
[www.nbaa.org/quietflying](http://www.nbaa.org/quietflying)

**Humanitarian Emergency Response Operator (HERO) Database**  
[www.nbaa.org/hero](http://www.nbaa.org/hero)

### OTHER RESOURCES

**No Plane No Gain**  
[www.noplanenogain.org](http://www.noplanenogain.org)

**General Aviation Manufacturers Association**  
[www.gama.aero](http://www.gama.aero)

**Alliance for Aviation Across America**  
[www.aviationacrossamerica.org](http://www.aviationacrossamerica.org)

**International Business Aviation Council**  
[www.ibac.org](http://www.ibac.org)

**International Standard for Business Aircraft Operations (IS-BAO)**  
[www.ibac.org/is\\_bao](http://www.ibac.org/is_bao)

**FileSmart**  
[www.filesmart.org](http://www.filesmart.org)

**Corporate Angel Network**  
[www.corpangelnetwork.org](http://www.corpangelnetwork.org)

**The Air Care Alliance**  
[www.aircareall.org](http://www.aircareall.org)

**Angel Flight**  
[www.angelflight.com](http://www.angelflight.com)

**Cessna Special Olympics Airlift**  
[www.cessnaairlift.com](http://www.cessnaairlift.com)

**Honor Flight Network**  
[www.honorflight.org](http://www.honorflight.org)

**Veterans Airlift Command**  
[www.veteransairlift.org](http://www.veteransairlift.org)

### INDUSTRY PUBLICATIONS

Unless otherwise noted, all of the following may be downloaded in PDF format from [www.nbaa.org/business-aviation](http://www.nbaa.org/business-aviation). To inquire about the availability of printed copies, email [publications@nbaa.org](mailto:publications@nbaa.org).

**Business Leaders on Business Aviation:** Collects the voices of 25 CEOs from some of the country's most dynamic and widely known companies, affirming how business aviation works for their companies.

**The Wide Wings and Rotors of General Aviation:** Captures the stories behind the industry's significant economic and community impact throughout the United States.

**2015 PwC Study:**  
"Contribution of General Aviation to the U.S. Economy"

**2013 NEXA Advisors Study, Part V:**  
"Business Aviation and the World's Top-Performing Companies."

**2012 NEXA Advisors Study, Part IV:**  
"Maintaining Shareholder Value Through Turbulent Times: The S&P 500 During the Great Recession 2007–2012."

**2012 NEXA Advisors Study, Part III:**  
"Government Use of Aircraft: A Taxpayer Value Perspective."

**2010 NEXA Advisors Study, Part II:**  
"Business Aviation: An Enterprise Value Perspective, Small and Medium-Size Enterprises."

**2009 NEXA Advisors Study, Part I:**  
"Business Aviation: An Enterprise Value Perspective."

**2009 Harris Interactive Study:** "The Real World of Business Aviation: A Survey of Companies Using General Aviation Aircraft."

**General Aviation Manufacturers Association Publication:** "General Aviation Statistical Databook & Industry Outlook."  
[www.gama.aero/publications](http://www.gama.aero/publications)

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## **ABOUT NBAA**

Founded in 1947, the National Business Aviation Association (NBAA) is the leading organization for companies that rely on general aviation aircraft to help make their businesses more efficient, productive and successful. Join today by visiting [www.nbaa.org/join/factbook](http://www.nbaa.org/join/factbook).

*2014 edition, reprinted 2/2015*

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