2015 General Aviation Statistical Databook & 2016 Industry Outlook

General Aviation Manufacturers Association

General aviation is defined as all aviation other than military and scheduled commercial airlines.

General Aviation:

- Includes over 362,000 general aviation aircraft flying worldwide today, ranging from two-seat training aircraft and utility helicopters to intercontinental business jets, of which over 204,000 aircraft are based in the United States and over 110,000 aircraft are based in Europe.
- Supports $219 billion in total economic output and 1.1 million total jobs in the United States.
- In the U.S., flies almost 23 million hours, of which two-thirds are for business purposes.
- Flies to more than 5,000 U.S. public airports, while scheduled airlines serve less than 400 airports. The European general aviation fleet can access over 4,200 airports.
- Is the primary training arena for most commercial airline pilots.

GAMA

GAMA is an international trade association representing more than 90 of the world's leading manufacturers of general aviation airplanes and rotorcraft, engines, avionics, components, and related services. GAMA's members also operate repair stations, fixed-based operations, pilot and maintenance training facilities, and manage fleets of aircraft. For more information, visit GAMA's Web site at www.GAMA.aero and look for us on Facebook and LinkedIn.

Welcome from GAMA's Chairman

I'm very pleased to present to you GAMA's *2015 General Aviation Statistical Databook & 2016 Industry Outlook*. Chock full of the latest information as well as historical statistics, this Databook is considered *the* industry resource on general aviation (GA) data.

The book in your hands includes the most current information on GA shipments and billings, GA fleet and flight activity, the pilot community, airports and aeronautical facilities, and GA safety information. It's an in-depth look that shows just how expansive the GA marketplace is in today's world.

In the book's opening pages, you'll find highlights of GAMA's activities in 2015. It was quite a year, as the association reached a record number of member companies and created an entirely new associate membership category for companies developing hybrid and electric propulsion aircraft. In addition, GAMA played a lead role in organizing the historic Arsenal of Democracy: World War II Victory Capitol Flyover in Washington, DC that marked 70 years since Victory in Europe Day. We also brought our successful General Aviation Jobs rallies to two more states: Florida and Delaware. And GAMA continued to work effectively with policymakers and regulators around the globe, with impressive results, including reauthorization of the U.S. Export-Import Bank, permanency of the U.S. Research & Development tax credit, multi-year authorization for U.S. "bonus depreciation," revision of basic GA regulations in Europe by the European Aviation Safety Agency (EASA), and EASA's publication of a single-engine commercial operating rule.

One of GAMA's biggest priorities in 2016 is shaping the passage of a multi-year U.S. Federal Aviation Administration reauthorization bill. In November 2015, GAMA wrote to four transportation leaders in the U.S. Congress outlining our priorities to be included in the bill, especially certification reform. You can read the letter on page 2.

I also want to share with you GAMA's other priorities for this year, which are listed in the box to the right. As you can see, we have a lot of work ahead of us, and I look forward to our continued progress on these important topics.

I hope you'll be as proud as I am of GAMA's work as you read through this book. Each day, the association works relentlessly on behalf of its members, both large and small, to ensure global leaders, the public, and the press understand the importance and value of our industry. That's why I'm honored to be a GAMA member and its Chairman in 2016. Here's to another great year.

Best Regards,

Aaron C. Hilkemann

Aaron Hilkemann
GAMA Chairman and
President and CEO, Duncan Aviation

Chairman's Objectives for 2016

In 2016, GAMA seeks to accomplish the following goals:

- Pursue improvements and enable innovation in general and business aviation to enhance safety
- Facilitate improvements in the effectiveness and efficiency of global civil aviation authorities in conducting their certification, operational, and maintenance oversight responsibilities, and reduce regulatory burdens
- Advocate for policies and technologies that enhance general and business aviation growth, access, and environmental sustainability
- Promote greater awareness of the economic impact and societal benefits of general and business aviation globally
- Foster general and business aviation renewal through programs and policies that help ensure a robust fleet, pilot, engineering, and skilled trades population
- Support organizational excellence at GAMA

In November, GAMA sent a letter to four transportation leaders in the U.S. Congress about the upcoming U.S. Federal Aviation Administration (FAA) reauthorization bill. The text of the letter follows.

Dear Chairman Shuster, Chairman Thune, Ranking Member DeFazio and Ranking Member Nelson:

On behalf of the General Aviation Manufacturers Association (GAMA), I am writing today to urge you to introduce legislation for the reauthorization of the FAA in the near term. With the current authorization having expired on September 30, 2015, there has already been one extension of FAA programs. Every day that passes makes it more likely that we will have another, bringing greater uncertainty to the marketplace and loss of momentum in addressing policy areas like certification reform and inconsistent interpretation of FAA regulations.

For GAMA, certification reform and regulatory improvements are key components of any legislative effort. Any reauthorization bill must push the FAA to more fully utilize Organizational Designation Authorization (ODA), which will help the agency manage scarce safety resources more effectively and end unnecessary delays in the certification and regulatory process; invest in training programs that help FAA employees succeed in their safety oversight responsibilities; and measure the performance of both the FAA and industry in their respective certification responsibilities. Additionally, GAMA believes the bill must focus on FAA's international engagement and leadership, which will help improve aviation safety and facilitate the flow of products globally.

GAMA and our member companies have worked with both the U.S. House and U.S. Senate Committees for many years to achieve these objectives. With your leadership, the U.S. Congress has undertaken significant efforts to improve certification. Certification reform will help create jobs and bring continued safety improvements. GAMA believes that these reforms could be passed quickly and with bipartisan support.

GAMA also recognizes that change needs to be discussed more broadly, especially in ensuring financial stability and flexibility at the entire agency. As all of us go into this discussion, we need to be certain that as we try to solve specific problems, we do not create others. FAA's air traffic system is the largest and most complex in the world; it is also the safest and one of the most efficient. To a degree not found in other countries, the economic health and vitality of numerous businesses and communities, small and large, depend on the nation's aviation system. Any change must not weaken this strong foundation, which has made the U.S. aviation system the envy of the world.

In analyzing and evaluating changes to the FAA and the overall management of the aviation system, GAMA believes the following considerations should be a key basis for moving forward:

- Any change must help secure the future growth and health of the general aviation industry given the significant number of good jobs it creates. Changing the funding mechanism to user fees from the fuel tax for general and business aviation would have an unquestionably negative impact, and safeguards must be in place to preserve Congressional decision authority in future revenue decisions.
- Any changes must improve the efficiency and safety of air travel but also sustain the broader public benefits of aviation, including providing airport access and air traffic service for rural and underserved areas and guaranteeing all users are treated equitably in terms of access to airspace. Additionally, if a Board is considered, it must be composed of individuals who will keep the public interest principles of safety, access and rural and small community service inviolable while possessing the expertise to help FAA advance its operational mission, rather than simply be a collection of aviation interests.
- With issues like the safe and timely integration of Unmanned Aerial Systems (UAS) and commercial space transportation into the National Airspace System needing to be addressed, great scrutiny must be given to any proposal that fragments the key operational and safety oversight elements of FAA.

Because the issues involved in FAA reauthorization require thoughtful review, GAMA hopes you will introduce legislation in the near term and allow constructive and collaborative discussions to begin on the way ahead. We look forward to working with you and all members of Congress in addressing these issues, and ensuring that we advance certification reform, aviation manufacturing, and the nation's aviation system as a whole. Thank you for your consideration.

Sincerely,

Peter J. Bunce
President and CEO

U.S. Senator Tom Carper (D-DE) meets with local vocational-tech students following the General Aviation Jobs Rally in New Castle, Delaware.

Jobs Rallies Celebrate Industry's Economic Impact

GAMA highlighted general aviation's significant impact on the U.S. economy by bringing its successful jobs rallies to Florida and Delaware in 2015.

Approximately 500 people attended GAMA's jobs rally at Piper Aircraft in Vero Beach, Florida, on April 7. U.S. Senator Bill Nelson and U.S. Representative Bill Posey joined GAMA Board members representing Florida companies—Avidyne, B/E Aerospace, Embraer, Extant Components Group, and Piper Aircraft—as well as GAMA Chairman Joe Brown, and GAMA President and CEO Pete Bunce for the event.

"General aviation has been a big part of Florida's history and economy," Senator Nelson said. "The state looks forward to many more years of growth and job opportunities in the aviation industry."

In November, about 400 general aviation manufacturing employees, vocational-tech students, veterans, and enthusiasts gathered at Dassault Falcon Jet in New Castle, Delaware, for GAMA's 14th jobs rally. Delaware Governor Jack Markell, U.S. Senators Tom Carper and Chris Coons, and U.S. Representative John Carney made remarks, as did leaders from Aloft AeroArchitects, Dassault Falcon, FlightSafety International, Summit Aviation, and GAMA's Bunce.

Noting the 2,600 jobs and $588 million in economic output that general aviation supports annually in Delaware, Senator Carper remarked, "That's a big impact on a small state." Senator Coons added, "Delaware has roots in the very beginning of the modern aviation industry, and clearly has a role in the aviation industry of today and the future."

Events Across U.S. Mark GA Week

Governors and U.S. members of Congress got a chance to see general aviation firsthand during the second annual General Aviation Maintenance and Manufacturing Week.

Manufacturers with facilities at Dallas Love Field in Texas hosted U.S. Representatives Eddie Bernice Johnson and Pete Sessions, along with Texas State Senator Bob Hall and Texas State Representatives Rodney Anderson and Morgan Meyer, for the event. After an industry breakfast featuring eight GAMA member companies at Signature Flight Support, leaders toured Dallas Airmotive, StandardAero's Associated Air Center, and Gulfstream Aerospace Corporation locations, where they saw manufacturing and completions work taking place. Staff from the offices of U.S. Senator John Cornyn and U.S. Representatives Sam Johnson and Marc Veasey also attended.

That same month, Governor Bruce Rauner visited StandardAero in Springfield, Illinois. "What I'm seeing here is incredibly impressive," Governor Rauner said. "High quality, dedication, outstanding service. That's what it's about."

Additionally, U.S. Representative Joe Barton joined Fort Worth, Texas Mayor Betsy Price for a ribbon-cutting at Bell Helicopter as part of the August events. U.S. Senator Jerry Moran also hosted U.S. Transportation Secretary Anthony Foxx and several GAMA member companies for an aviation roundtable in Wichita, Kansas.

GAMA Hill Day

U.S. Senator John Boozman (R-AR), a Co-Chair of the Senate General Aviation Caucus, left, meets with Jim Hirsch of Air Tractor, Inc., right, and Victor Scott of Aviall, center, during GAMA's annual Hill Day in June. GAMA members visited more than 115 U.S. House of Representatives and U.S. Senate offices to discuss issues of importance to manufacturers, including U.S. Federal Aviation Administration reauthorization and renewal of the U.S. Export-Import Bank.

GAMA Testifies Before U.S. Congress

As the U.S. Congress considered U.S. Federal Aviation Administration (FAA) reauthorization, transportation committees reached out to GAMA members twice in 2015 to provide expert commentary on issues involving how to improve FAA certification processes.

GAMA Vice Chairman Aaron Hilkemann, President and CEO of Duncan Aviation, testified before the U.S. House Transportation and Infrastructure Committee in January on the need for greater consistency in interpreting FAA regulations and developing a timely resolution process for disputes. He highlighted several of the recommendations made by the Consistency of Regulatory Interpretation Aviation Rulemaking Committee to improve the tools, training, and processes.

GAMA Vice Chairman Aaron Hilkemann testifies before the U.S. House Transportation and Infrastructure Committee in January.

In April, GAMA President and CEO Pete Bunce testified before the U.S. Senate Commerce, Science, and Transportation Aviation Subcommittee about the need to improve FAA certification processes and address other regulatory challenges. Bunce told the committee that making these changes would allow government and industry to better use their safety resources and make manufacturers more competitive.

U.S. Export-Import Bank Reauthorized

After months of hard work by GAMA, its member companies, and other organizations, the U.S. Congress renewed and reauthorized the Export-Import Bank of the United States in December, allowing U.S. manufacturers to once again compete on a global playing field.

Knowing the reauthorization fight would be difficult, GAMA began pushing for the Bank's renewal in 2014, including testimony before Congress by then-GAMA Vice Chairman Joe Brown of Hartzell Propeller Inc. and GAMA President and CEO Pete Bunce. Jim Hirsch, President of AirTractor, Inc., also briefed Congressional staff on the Bank's importance to his small business. In 2015, GAMA members continued the drumbeat on this issue, including discussing the Bank's critical role to manufacturers with members of Congress during its annual Hill Day in June.

While the Bank was forced to shutter for five months, GAMA continued to press the issue in public. Following the December vote, Bunce concluded, "The overwhelming bipartisan majorities in both the U.S. House of Representatives and the U.S. Senate who voted to renew the Bank showed their recognition that reestablishing a level playing field in credit agency financing is critical to ensuring fair competition between manufacturers in the international marketplace."

Key Tax Provisions Extended

In December, the U.S. Congress permanently extended the research and development (R&D) tax credit, which will help manufacturers continue to develop and deliver innovative and advanced safety-enhancing products.

In addition, Congress extended bonus depreciation for aircraft bought and placed into service from 2015 to 2020. The depreciation rate starts at 50 percent, then slides to 30 percent depending on when the aircraft is put under contract and when it is placed into service. "The longer time horizon of this bonus depreciation extension will provide manufacturers and our customers greater utilization of this important manufacturing tax incentive," GAMA President and CEO Pete Bunce said.

GAMA Announces New Associate Member Category

As it neared the end of the 45th year since its founding, GAMA opened its doors to a new associate membership category, welcoming manufacturers of electric and hybrid propulsion aircraft to the association in October.

The purpose behind the new category is to couple the associate members' engineering expertise with GAMA's policy and technical experience to better enable the worldwide development, growth, and certification of electric and hybrid propulsion aircraft to benefit all of general aviation.

In making the announcement, GAMA President and CEO Pete Bunce said the association sees "this aerodynamically innovative emerging propulsion technology facilitating totally new aircraft designs that are safe, highly reliable, and may dramatically lower the operational costs of flying." GAMA believes its expertise in working with policymakers and regulatory authorities around the globe will help these new technology companies to speed innovation and introduce their products to the marketplace more quickly, he noted.

LEFT: Colton Koester, Jonathan Smythe, Nathan Koester, and Abri Badger in front of the airplane they helped build.
BELOW: Colton Koester prepares the wing for the fuel tank installation.
BOTTOM: Abri Badger works on bucking rivets.

Building an Airplane, Learning Life Skills

The CHEF Homeschoolers from Cuba City, Wisconsin credit the GAMA/Build A Plane 2015 Aviation Design Challenge with teaching them the "importance of teamwork, creativity, and critical thinking." They put those skills to work to win the third annual competition to promote Science, Technology, Engineering, and Math (STEM) skills among U.S. high school students.

More than 70 schools in 31 states and Washington, DC entered the competition, which required that each team have at least one male and at least one female student. The teams used "Fly to Learn" curricula and training to learn the fundamentals of aerospace engineering and flight, and software powered by X-Plane to apply what they learned to modify and fly a virtual Glasair Sportsman airplane. Each school was scored on how much payload the airplane carried, how much fuel it used, and the time the flight took. Judges from GAMA's engineering team also took into consideration how the students applied the curriculum to their airplane design when selecting the winning school.

"We learned a great deal about STEM, how to test our aircraft consistently, and how to make very finite changes to our plane to get better results," the students wrote in an essay accompanying their entry. "The competition has been an excellent learning experience for us!"

The day before the build began, GAMA President and CEO Pete Bunce flew winners Abri Badger, Colton Koester, Nathan Koester, and Jonathan Smythe on Young Eagle flights in a GAMA aircraft over the Wisconsin Dells and the Mississippi River north of Dubuque, Iowa.

On June 8, the students—along with teacher Tom Smythe and chaperone Steve Badger—arrived at Glasair Aviation in Arlington, Washington, to start building a Glasair Sportsman as part of the manufacturer's well-known "Two Weeks to Taxi" program. The team immediately got to work bucking rivets, fabricating metal and composite brackets, running control cables, sanding the airframe, fabricating and attaching fuel lines, mounting the gear, and attaching the propeller. Their hard work paid off when the airplane taxied on Day 10 of the build, a full day ahead of schedule, which Bunce called a "remarkable accomplishment."

Glasair Aviation staff supported the CHEF Homeschoolers team, as well as the builder, Paolo Buonfante, throughout the two weeks. In addition, Jeppesen CEO Mark Van Tine spent several days at the build, and staff from GAMA and Jeppesen assisted the winning team. During their day off, the students toured Boeing's nearby facility in Everett, Washington, and the Museum of Flight in Seattle with former GAMA Chairman Steve Taylor.

In July, the students visited with several of the competition's sponsors—including Garmin, GE Aviation, Jeppesen, and Wipaire—at AirVenture in Oshkosh, Wisconsin. They also shared their experiences with Wisconsin Lieutenant Governor Rebecca Kleefisch and U.S. Representatives Todd Rokita (R-IN) and Glenn Grothman (R-WI), as well as two of the 2013 Aviation Design Challenge winners.

GAMA appreciates the support of the competition's sponsors in making this educational effort possible. They include: BBA Aviation; Embraer; Garmin International, Inc.; GE Aviation; Gulfstream Aerospace Corporation; Hartzell Propeller Inc.; Jeppesen; Jet Aviation; Lycoming Engines; Rockwell Collins; Sabreliner Aviation; and Wipaire.

Historic Flyover Celebrates World War II Victory

On a bright blue day in May, 56 vintage World War II military airplanes took to the skies over Washington, DC to celebrate 70 years since the end of the war in Europe.

Thousands of viewers literally stopped traffic in the District of Columbia, Maryland, and Virginia as they watched the Arsenal of Democracy: World War II Victory Capitol Flyover. The May 8 event featured the war's iconic aircraft flying in 15 historically sequenced formations, beginning with trainers, followed by combat aircraft commemorating the war's major battles from Pearl Harbor to the final air offensive, and ending with a missing man formation to honor those who never returned from the warfront. Some of the "warbirds" featured in the Flyover included the Curtis P-40 Warhawk, the North American B-25 Mitchell, the Consolidated B-24 Liberator and PBY Catalina, the Douglas SBD Dauntless, the Lockheed P-38 Lightning, the Grumman TBM Avenger, the Vought FG-1D Corsair, and the Boeing B-17 Flying Fortress and B-29 Superfortress.

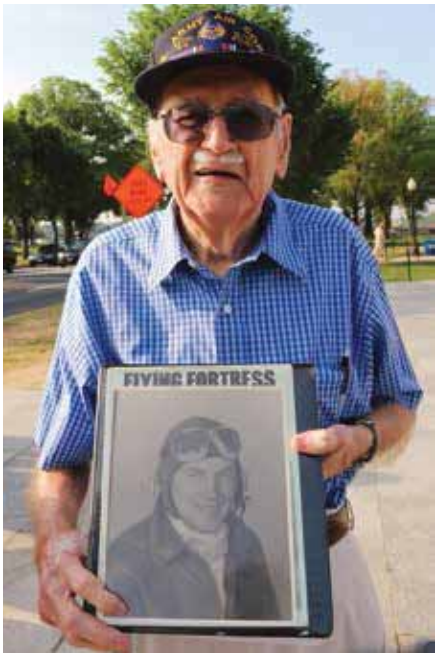
GAMA played a lead role in organizing the event, along with the Commemorative Air Force, the International Council of Air Shows, the National Air Traffic Controllers Association, and the Texas Flying Legends Museum. Three World War II heroes—former U.S. President George H.W. Bush, former U.S. Senator Bob Dole (R-KS), and former U.S. Representative John Dingell (D-MI)—served as the Flyover's Honorary Co-Chairs. Three dozen members of the U.S. Congress served on the Honorary Congressional Committee, which was chaired by U.S. Senator James Inhofe (R-OK) and U.S. Representative Sam Graves (R-MO).

The Flyover was months in the planning, and event organizers worked closely with the U.S. Federal Aviation Administration (FAA), the U.S. Transportation Security Administration, the U.S. National Park Service, the U.S. Capitol Police, the U.S. Secret Service, and the Friends of the National World War II Memorial. In March, the FAA granted the necessary approvals for the Flyover to take place, noting "the educational and historic value of this single signature event in commemorating this significant milestone in history."

Reliving their wartime experience seven decades later, a number of World War II veterans from across the United States flew on the airplanes during practices leading up to the Flyover. During the Flyover itself, Representative Graves led the missing man formation, with U.S. Representative Todd Rokita (R-IN) flying in his back seat.

The day before the Flyover, Wounded Warriors from the recent conflicts in Iraq and Afghanistan had a chance to meet the World War II veterans and fly on the airplanes during practice rides. That night, four World War II veterans—Bud Anderson, Chester Finnegan, Charles McGee, and Karnig Thomasian—recounted their stories of bravery to interviewer David Hartman at a dinner held at the Smithsonian Institution's National Air and Space Museum.

CREDIT: STEVE SCHAPIRO



CREDIT: STEVE SCHAPIRO

"I had this dream of flying airplanes," Anderson, a Triple Ace who flew a P-51 Mustang in the war, said. "Pearl Harbor happened on December 7 [1941]. Two days later, I was gone" to the warfront.

Immediately prior to the Flyover, the Friends of the National World War II Memorial hosted a wreath-laying

CREDIT: TONY GRANATA

TOP: World War II veterans look skyward in Washington, DC to watch the historic Flyover.
ABOVE: Then and now—A veteran remembers his days flying the Boeing B-17 Flying Fortress.
LEFT: Some of the 56 historic World War II aircraft ready for takeoff.

CREDIT: TONY GRANATA

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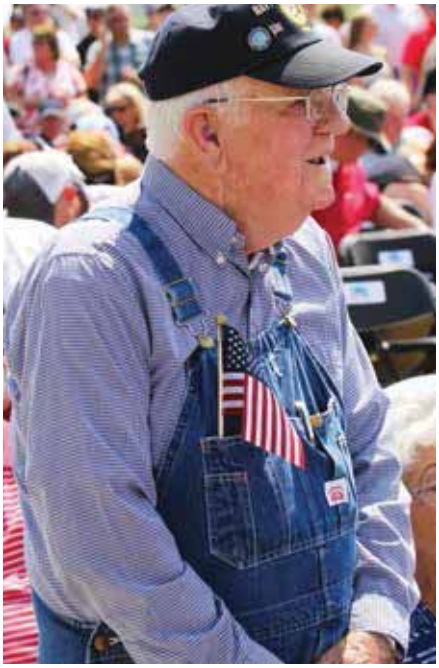


CREDIT: JONATHAN ARCHER

ceremony to commemorate the fallen, where speakers included National Security Adviser Susan Rice, whose father was a Tuskegee Airman. Hundreds of World War II veterans, including former Senators Dole and John Warner (R-VA), attended and had a prime viewing seat for the Flyover that followed along the National Mall.

The Flyover attracted worldwide media interest in countries such as China, Germany, Israel, Japan, Poland, Russia, the U.K., and Ukraine. Earlier that week, GAMA President and CEO Pete Bunce flew in a B-24 Liberator, the Diamond Lil, with "Fox News Sunday" host Chris Wallace for a feature on the program. A video featuring highlights of the Flyover is available on GAMA's Facebook page.

GAMA wishes to thank the following members for supporting the Flyover: Honeywell Aerospace; GE Aviation; Triumph Group, Inc.; ATP (in honor of 14th Air Force Captain William L. Daniels); Jet Aviation; Signature Flight Support; Aviall; Gulfstream Aerospace Corporation; Jeppesen; Textron Aviation/ Bell Helicopter; UTC Aerospace Systems; Aspen Avionics; Bombardier Aerospace; Garmin International; Piper Aircraft; Rockwell Collins; and Ultra Electronics ICE.

TOP LEFT: A historic Boeing B-17 Flying Fortress soars near the Washington Monument during the Flyover.
TOP RIGHT: Tuskagee Airman Charles McGee, seated, enjoys a prime viewing spot for the Flyover.
LEFT: From left, World War II veterans Bud Anderson, Charles McGee, Chester Finnegan, and Karnig Thomasian, with moderator David Hartman and GAMA President and CEO Pete Bunce at a Flyover dinner honoring the veterans at the National Air and Space Museum.
RIGHT: A U.S. Navy veteran of World War II wears the American flag proudly.

New Rules for Commercial Operations Using Single-Engine Airplanes in Europe

In November, the European Aviation Safety Agency (EASA) issued a draft regulation that would allow Commercial Air Transport operations using single-engine turbine airplanes to fly at night and in Instrument Meteorological Conditions. Europe is the last major aviation region of the world that does not permit widespread commercial operations in single-engine airplanes. The proposal would make Europe compliant with standards set by the International Civil Aviation Organization in 2005.

"The staff and leadership of EASA are to be commended for having undertaken a detailed and systematic review of the commercial regulations to create a set of regulatory requirements that expands the utility of general aviation across the European continent," GAMA President and CEO Pete Bunce said when the draft regulation was issued. A final rule is expected in 2016.

A draft rule applying to commercial air transport operations flying single-engine turbine airplanes will "expand the utility of general aviation across the European continent," GAMA President and CEO Pete Bunce said.

GAMA President and CEO Pete Bunce, left, meets with European Aviation Safety Agency (EASA) Executive Director Patrick Ky. GAMA has been working closely with European policymakers on a rule that would rethink the approach to general aviation safety in Europe, which Ky strongly supports.

Revising the Safety Framework for GA in Europe

Efforts continue to rethink general aviation regulation in Europe, an initiative strongly supported by European Aviation Safety Agency (EASA) Executive Director Patrick Ky and senior aviation figures across the European Union. Following a review of EASA's overall legal framework, the European Commission in December issued a major legislative proposal to revise EASA's "Basic Regulation." GAMA has been working throughout this process with European policymakers on the expected rule, which forms the basis for EASA's mandate, scope, working methods, and relationship with national authorities.

The proposal aims to address the lack of proportional rules for general aviation by facilitating a risk-based approach to rulemaking and simplifying airworthiness procedures. As the two-year adoption process begins, GAMA is continuing to urge each of the European institutions responsible to enhance the proposal by promoting more efficient certification practices, better use of bilateral agreements, and flexible, proportionate requirements suited to the entire spectrum of general aviation.

Strengthening the Security Standards for Aircraft Systems and Information

The U.S. Federal Aviation Administration (FAA) in March launched a rulemaking group to develop airworthiness standards and associated guidance to further enhance the security of aircraft systems and information. The FAA has tasked the working group, co-chaired by GAMA and The Boeing Company, to complete its development of Aircraft Systems Information Security/Protection (ASISP) policy and guidance by August 2016.

Currently, the regulator issues special conditions to manage aircraft system security. The ASISP will result in a common set of rules and standards that have proportional applicability to different types of aircraft that will take the place of the special conditions.

The working group is reviewing existing industry standards to determine if they are appropriate. A principal activity is to ensure that the regulations are harmonized between FAA and Agência Nacional de Aviação Civil—Brasil, the European Aviation Safety Agency, and Transport Canada Civil Aviation, which are all members of the working group.

GAMA Presses Regulators Globally on Aircraft Certification

Throughout 2015, GAMA worked closely with regulators around the world to make it easier for manufacturers to bring new, safety-enhancing products and technologies to market.

Promoting International Cooperation

With a vast majority of general aviation aircraft type-certificated and produced in Brazil, Canada, Europe, and the United States, international cooperation between authorities in these four leading states of aviation design facilitates safety and improves the ability of manufacturers to deliver new products and technologies within these countries and globally. By working beyond individual bilateral agreements as a quadrilateral certification management team, regulators in these states are collectively seeking to improve type validation processes and acceptance of equipment and general aviation aircraft.

GAMA is encouraging efforts that promote this coordinated approach. The increased cooperation promises not only greater efficiencies for the governments involved but for industry as well by removing redundant certification activities. While one state-of-design conducts the detailed initial certification of a new product or technology, another state—with which it has a Bilateral Aviation Safety Agreement (BASA)—validates the work already done and focuses its resources on areas critical to the aircraft's safety or where the two states may have significant regulatory differences. These changes can reduce delays and significantly lower certification costs for manufacturers while opening access to markets and making new products and equipment available to operators.

In September, for example, the U.S. Federal Aviation Administration (FAA) worked with bilateral partners the European Aviation Safety Agency (EASA) and Transport Canada Civil Aviation to update their respective Technical Implementation Procedures, including a significant new approach to mutually accept each other's design approvals for parts and equipment, referred to as Technical Standard Order (TSO) Authorizations. This means the importing authority will accept the exporting authority's approval of a TSO article without needing to issue its own redundant validated approval.

Additionally, FAA and EASA simplified administrative procedures for basic Supplemental Type Certificates (STCs), which are approved modifications such as the installation of safety-enhancing equipment like ADS-B and multi-function displays for maps and weather. The validating (second) authority will accept the certifying (original) authority's classification and issue a validated basic STC without conducting a further technical review—which can significantly reduce the cost and time it takes to make these modifications and equipment available in other markets.

Simplifying Modifications and Repairs in Europe

Meanwhile, in July, EASA announced that it would adopt Certification Specifications for Standard Changes & Standard Repairs (CS-STAN), which will simplify the process of making standard upgrades and repairs to a broad swath of general aviation aircraft in Europe. By establishing standard methods and techniques to make simple modifications and repairs to general aviation aircraft, rather than requiring an application to EASA for individual STC design approvals each time a change is made, this new approach will significantly reduce the cost and time involved for both industry and EASA to make modifications and repairs while also increasing safety.

EASA's decision "demonstrates the new, pragmatic mindset throughout the safety agency, one that seeks a proportional approach to regulations that impact general aviation," GAMA President and CEO Pete Bunce noted.

Streamlining Certification for Small Airplanes

Two years after U.S. President Barack Obama signed the Small Airplane Revitalization Act (SARA) into law to help revitalize the lighter end of general aviation, progress remains uneven, with Europe moving more quickly than the United States—even though this was a U.S.-led initiative and most of the world's aircraft operate in U.S. airspace.

SARA—which President Obama signed into law on November 27, 2013, and which passed both chambers of the U.S. Congress unanimously—followed the recommendations of a government-industry group of more than 150 experts, which GAMA co-chaired, to simplify the certification process for Part 23 aircraft. Under the bill, the Obama Administration had a deadline of December 15, 2015 to file a rule to implement the recommendations. However, the Administration had not even filed a Notice of Proposed Rulemaking by that date.

While GAMA noted that the FAA worked diligently to prepare a rule, the FAA, along with other federal departments and agencies, failed to move it through the bureaucratic process. "It is very disappointing that they have not found ways to comply with the law of the land, despite repeated requests by, and assistance from, industry to do so," Bunce said.

Meanwhile, European regulators worked with industry in 2015 to develop a proposed rulemaking package for small airplanes, issued an Advance Notice of Proposed Amendment, and appear ready to move forward on a rule in 2016.

As GAMA continues to push for streamlining the certification of small airplanes in the U.S. and Europe, it is also looking to similarly streamline the regulatory airworthiness standards for Parts 27 and 29 normal-category rotorcraft and transport-category rotorcraft, respectively.

General and Business Aviation Address Climate Change

In 2009, GAMA and other leaders in the general and business aviation industries committed to improving aerodynamic and engine efficiencies to address climate change. With GAMA and our member companies' support, two landmark initiatives on this path stand on the threshold of becoming reality in 2016.

Reducing Carbon Dioxide Emissions

In 2016, the International Civil Aviation Organization (ICAO) should finalize development of the first-ever CO_2 standard for aircraft. Work on the standard—which has been in progress for six years—is expected to be approved by the ICAO General Assembly later in the year.

Beginning with the complex technical work of developing a metric that is appropriate for all types of airplanes, and continuing on to the selection of an appropriate standard, GAMA has emphasized the importance of a standard that is environmentally effective as well as technologically feasible and economically reasonable.

The CO_2 standard is one element in a balanced package of measures that ICAO is working on. To ensure recognition of these critical efforts, GAMA joined other aviation groups in September to oppose a call in the U.S. Congress for the U.S. to ignore ICAO's efforts and unilaterally implement its own regulations on CO_2 emissions from aircraft. GAMA and other industry groups noted the intrinsically global nature of aviation and the destructive economic impact that a patchwork of regulations around the world would have on the aviation industry and the millions of jobs it supports.

Developing Market-Based Measures

Additionally, ICAO resolved in 2013 to develop a global market-based measure (MBM) to replace national or regional schemes, such as the ill-fated European Union Emissions Trading Scheme. ICAO members and industry have worked to refine an acceptable framework that will promote carbon-neutral growth for all of aviation starting in 2020. GAMA's focus throughout has been to ensure that any such framework is environmentally meaningful, takes account of the unique characteristics of the business aviation industry to which it will apply, and is not discriminatory or administratively burdensome for small operators.

The Air Transport Action Group (ATAG), which includes GAMA along with the entire global aviation industry—including business aviation operators, airlines, manufacturers, airports, and air navigation service providers—released an open letter in September to world leaders, urging them to complete the work necessary to develop a global MBM for approval at the ICAO General Assembly in 2016. The letter also asked government leaders worldwide to support the industry's efforts to reduce CO_2 emissions through several measures, including investing in infrastructure, supporting research for technology innovations, promoting more efficient operations, and facilitating the development and commercialization of sustainable alternative fuels.

Moving Toward Unleaded Avgas

Separately, efforts to transition the U.S. piston engine fleet to an unleaded aviation fuel also gained momentum in 2015. The U.S. Congress approved $7 million for Fiscal Year 2016 to continue funding for the Piston Aviation Fuels Initiative (PAFI), a government/industry collaborative effort to identify, evaluate, and deploy unleaded alternative fuels to the 100 low-lead aviation gas currently used, with the goal of minimizing the impact on the piston aircraft fleet. The amount was $1 million more than the Obama Administration requested, and is being used to support a comprehensive testing program necessary for a fleet-wide airworthiness and safety evaluation.

Additionally, after carefully assessing 10 candidate unleaded fuels solicited through a public process, the U.S. Federal Aviation Administration (FAA) in 2015 selected four fuels for testing as potential unleaded avgas replacements. In early 2016, FAA will complete the Phase 1 laboratory and rig testing and select the best two fuel candidates for Phase 2 full-scale engine and aircraft testing. The PAFI program is on schedule to fully evaluate and identify an unleaded avgas replacement by the 2018 deadline. Afterward, the PAFI data will support an FAA authorization to use the replacement fuel so that ASTM, a premier standards-setting body, can issue a production specification for commercialization of the fuel.

GAMA's History and Mission

Founded in 1970, GAMA is devoted to one primary purpose: fostering and advancing the general welfare, safety, interests, and activities of general aviation (GA). This includes promoting a better understanding of GA manufacturing and the important role it plays in creating good jobs and economic opportunity, as well as supporting educational and charitable activities in communities around the globe.

Headquartered in Washington, DC, with an office in Brussels, GAMA represents the interests of its members to government leaders and agencies throughout the world. GAMA's 90-plus members include the world's leading manufacturers of GA airplanes and rotorcraft, engines, avionics, components, and related services. In addition to building nearly all of the GA aircraft flying worldwide, GAMA member companies also operate fleets of airplanes, fixed-based operations, pilot/technician training centers, and maintenance facilities.

Table of Contents

The *2015 General Aviation Statistical Databook & 2016 Industry Outlook* contains detailed aircraft shipment and billing information. The U.S. fleet data in this Databook provides an overview of how the 204,000 active general aviation aircraft currently registered in the United States are operated: from personal and recreational flying to various types of business operations. The European data section contains aircraft registry data from 32 countries—over 110,000 individual aircraft—as well as data about Europe's aviation safety record. The Databook also includes information about other key general aviation markets: Australia, Brazil, Canada, China, New Zealand, and South Africa. In addition, the Databook provides historical data about general aviation safety in both Europe and the U.S.

Aircraft Shipments and Billings

In 2015, over $25 billion in new general aviation aircraft were delivered, but year-end results were mixed across the market segments and among the manufacturers. Results were impacted by economic uncertainty and currency fluctuations in key general aviation markets, such as Brazil and Europe, as well as in emerging markets, like China. By contrast, the North American market, in particular the United States, provided stronger delivery numbers, a reason for cautious optimism.

Piston airplane shipments were down in 2015. The piston market has grown incrementally since 2010, but declined by 6.5% in 2015 compared to 2014, from 1,129 to 1,056 shipments. Two-thirds of piston shipments were to North American customers, a significant increase from the 2014 North American market share of 55.1%. The Asia-Pacific market was the second largest at 13.5%; Europe accounted for 11.4% of shipments.

Piston rotorcraft shipments increased in 2015 by 8.6% from 2014. During the year, the rotorcraft industry delivered 279 piston aircraft.

The delivery of turboprop airplanes also declined, from 603 units in 2014 to 557 units in 2015. The North American market accounted for 56.2% of deliveries, an increase from 51.3% the previous year. Turboprop shipment numbers remain strong in both the Asia-Pacific region—at 16.3%—and in Latin America—at 14.5%. By contrast, Europe saw its smallest market share for turboprop deliveries since GAMA started tracking regional shipment data in 2007: 6.6%. The Middle East and Africa accounted for 6.3% of the market.

The preliminary turbine (*) results for rotorcraft industry point to a decline in civil shipments from 741 in 2014 to 675 in 2015, an 8.9% decline.

Business jet shipments were mostly flat in 2015 compared to 2014. Initial data (**) shows slight growth from 644 to 654 airplane shipments, an increase of 1.6%. The industry's continued investment in new products helped maintain the delivery rate for business jets.

Turbine Aircraft Operators

The worldwide business aircraft fleet continued to grow in 2015. According to JETNET, LLC, at the end of 2015, the turbine fleet consisted of 35,682 airplanes and 20,853 rotorcraft. There was an additional 9,682 piston rotorcraft in operation. The number of active operators is also growing: At the end of 2015, there were 21,339 business airplane operators and 14,147 rotorcraft operators in operation.

After several years of decline, the fractional aircraft fleet has stabilized. According to JETNET, LLC, in 2015, there were 837 aircraft used in fractional operations, up from 823 in 2014, and the number of fractional owners was 4,369, a slight decline from 2014, when there were 4,402 owners.

U.S. Pilot Population

The number of active pilots in the United States continues on a downward trajectory. According to the U.S. Federal Aviation Administration (FAA), there were 590,038 active pilots at the end of 2015, compared to 593,499 active pilots at the end of 2014. Although there was a slight uptick in the student pilot population in 2015 (122,729 compared to the 120,549 the prior year), the number of active private pilots again declined. At the end of 2015, there were 170,718 private pilots, a drop of more than 4,000 pilots from the previous year. Additional data about the pilot population can be found in Chapter 6 of the Databook.

Safety Data

The Databook contains both U.S. and European general aviation safety statistics. According to preliminary data provided by the FAA, 2015 had the second fewest fatal accidents (at 228) and the fewest fatalities on record. A historical overview of general aviation accident data is contained in Chapter 8. GAMA—in coordination with the FAA, the U.S. National Transportation Safety Board, and other stakeholders—continues to take steps to further enhance general aviation safety. The FAA's goal is to have no more than one fatal accident per 100,000 flight hours by 2018.

The European Aviation Safety Agency (EASA) has taken steps to refine how the agency gathers general aviation data. GAMA's Databook contains historical safety data for Europe from 2006 through 2013. The 2014 data identifies approximately 119 fatal general aviation accidents in Europe, resulting in 197 fatalities. GAMA continues to work with European stakeholders to advance GA safety based on data-driven analysis of accidents.

Additional data can be accessed online at www.GAMA.aero. If you have questions about GAMA's Databook, you can contact staff at +1-202-393-1500 or via email at info@GAMA.aero.

(*) Finmeccanica Helicopters Q4 data was not available at the time of publication. Finmeccanica Helicopters will release year-end results on March 16, 2016. GAMA will update the online 2015 report then.

(**) Bombardier Q4 aircraft delivery data will only be available when Bombardier Inc. announces its financial results for 2015 on Thursday, February 18, 2016. GAMA will update its 2015 aircraft shipment report shortly thereafter.

For the purpose of comparison in the Market Overview, GAMA excluded 2014 Q4 data for Bombardier and Finmeccanica in the above text.

General Aviation Shipments and Billings

CHAPTER 1

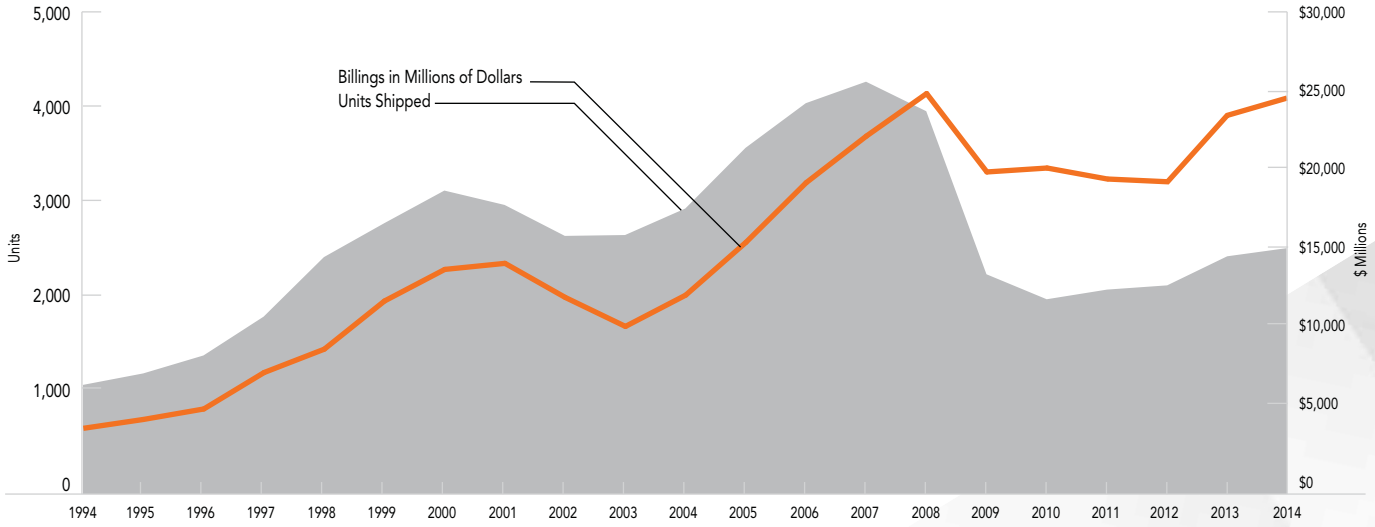
1.1 General Aviation Airplane Shipments by Type of Airplane Manufactured Worldwide (1994–2015)

Year	Grand Total	Single-Engine Piston	Multi-Engine Piston	Total Piston	Turboprop	Business Jet	Total Turbine
1994	**1,132**	544	77	**621**	233	278	**511**
1995	**1,251**	605	61	**666**	285	300	**585**
1996	**1,437**	731	70	**801**	320	316	**636**
1997	**1,840**	1,043	80	**1,123**	279	438	**717**
1998	**2,457**	1,508	98	**1,606**	336	515	**851**
1999	**2,808**	1,689	112	**1,801**	340	667	**1,007**
2000	**3,147**	1,877	103	**1,980**	415	752	**1,167**
2001	**2,998**	1,645	147	**1,792**	422	784	**1,206**
2002	**2,677**	1,591	130	**1,721**	280	676	**956**
2003	**2,686**	1,825	71	**1,896**	272	518	**790**
2004	**2,962**	1,999	52	**2,051**	319	592	**911**
2005	**3,590**	2,326	139	**2,465**	375	750	**1,125**
2006	**4,054**	2,513	242	**2,755**	412	887	**1,299**
2007	**4,277**	2,417	258	**2,675**	465	1,137	**1,602**
2008	**3,974**	1,943	176	**2,119**	538	1,317	**1,855**
2009	**2,283**	893	70	**963**	446	874	**1,320**
2010	**2,024**	781	108	**889**	368	767	**1,135**
2011	**2,120**	761	137	**898**	526	696	**1,222**
2012	**2,164**	817	91	**908**	584	672	**1,256**
2013	**2,353**	908	122	**1,030**	645	678	**1,323**
2014	**2,454**	986	143	**1,129**	603	722	**1,325**
2015	**n/a**	946	110	**1,056**	557	n/a	**n/a**

Bombardier Q4 aircraft delivery data will only be available when Bombardier Inc. announces its financial results for 2015 on Thursday, February 18, 2016. GAMA will update its 2015 aircraft shipment report shortly thereafter.

Source: GAMA

FIGURE 1.1 **General Aviation Airplane Shipments and Billings Worldwide (1994–2014)**



Source: GAMA

1.2 Estimated Billings (in Millions) for General Aviation Airplane Shipments by Type of Airplane Manufactured Worldwide (1994–2015)

Year	Grand Total	Single-Engine Piston	Multi-Engine Piston	Total Piston	Turboprop	Business Jet	Total Turbine
1994	**3,749**	n/a	n/a	**111**	714	2,924	**3,638**
1995	**4,294**	n/a	n/a	**169**	774	3,351	**4,125**
1996	**4,936**	n/a	n/a	**191**	864	3,881	**4,745**
1997	**7,170**	n/a	n/a	**238**	913	6,019	**6,932**
1998	**8,604**	n/a	n/a	**377**	1,011	7,216	**8,227**
1999	**11,560**	n/a	n/a	**440**	930	10,190	**11,120**
2000	**13,496**	n/a	n/a	**512**	1,323	11,661	**12,984**
2001	**13,868**	n/a	n/a	**541**	1,210	12,117	**13,327**
2002	**11,778**	n/a	n/a	**483**	868	10,427	**11,295**
2003	**9,998**	n/a	n/a	**545**	837	8,616	**9,453**
2004	**12,093**	n/a	n/a	**692**	997	10,404	**11,401**
2005	**15,156**	n/a	n/a	**805**	1,189	13,161	**14,350**
2006	**18,815**	n/a	n/a	**857**	1,389	16,555	**17,958**
2007	**21,837**	n/a	n/a	**897**	1,593	19,347	**20,940**
2008	**24,846**	n/a	n/a	**945**	1,953	21,948	**23,901**
2009	**19,474**	n/a	n/a	**442**	1,589	17,443	**19,032**
2010	**19,715**	n/a	n/a	**415**	1,300	18,000	**19,300**
2011	**19,042**	n/a	n/a	**441**	1,365	17,235	**18,600**
2012	**18,895**	n/a	n/a	**428**	1,359	17,108	**18,467**
2013	**23,450**	n/a	n/a	**571**	1,821	21,058	**22,879**
2014	**24,499**	n/a	n/a	**635**	1,849	22,015	**23,864**
2015	**n/a**	n/a	n/a	**601**	1,651	n/a	**n/a**

Starting in 2011, the data includes the addition of agricultural airplanes, new piston airplane manufacturers, and some helicopter manufacturers. The data cannot be directly compared to 2010 and earlier entries. Refer to Tables 1.4b and 1.4c for make and model detail.

Source: GAMA

1.3 Customer Delivery Region (in Percent of Total) for General Aviation Airplane Shipments by Type of Airplane Manufactured Worldwide (2007–2015)

Year	Piston					Turboprop					Business Jet				
	North America	Europe	Asia-Pacific	Latin America	Middle East & Africa	North America	Europe	Asia-Pacific	Latin America	Middle East & Africa	North America	Europe	Asia-Pacific	Latin America	Middle East & Africa
2007	66.5	16.3	9.2	5.4	2.7	57.2	16.3	8.6	14.4	3.4	58.3	24.9	4.2	7.5	5.2
2008	68.1	15.2	7.5	7.3	2.0	57.3	21.9	6.0	7.4	7.4	53.8	25.9	4.7	9.4	6.3
2009	59.4	21.2	9.5	6.8	2.8	57.8	17.5	8.7	8.1	7.8	49.4	26.3	8.6	9.2	6.4
2010	53.4	18.6	13.7	8.8	5.5	43.2	15.2	16.8	14.7	10.1	42.1	22.8	11.8	14.3	9.0
2011	57.7	12.0	15.6	10.0	4.6	52.6	14.1	14.4	13.6	5.3	50.0	20.2	12.9	10.1	6.8
2012	50.4	19.6	16.3	9.7	4.1	48.6	12.6	17.4	14.5	6.9	49.7	20.8	11.8	11.6	6.1
2013	52.8	17.2	15.1	10.0	5.0	57.1	10.5	14.0	13.2	5.3	52.4	15.6	11.9	11.1	9.0
2014	55.1	19.7	12.1	8.9	4.3	51.3	7.7	19.4	15.3	6.3	52.2	19.5	10.9	9.4	7.9
2015	66.7	11.4	13.5	6.3	2.2	56.2	6.6	16.3	14.5	6.3	n/a	n/a	n/a	n/a	n/a

Source: GAMA

1.4a **Worldwide Business Jet Shipments by Manufacturer (2002–2015)**

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Airbus	**2**	**0**	**0**	**9**	**11**	**13**	**11**	**13**	**15**	**10**	**9**	**6**	**5**	**4**
Airbus Corporate Jet (all models)	2	0	0	9	10	12	9	11	-	-	-	-	-	-
ACJ318	-	-	-	-	-	-	-	-	2	2	2	1	0	1
ACJ319	-	-	-	-	-	-	-	-	8	6	6	4	1	1
ACJ320	-	-	-	-	-	-	-	-	3	1	0	0	4	1
ACJ321	-	-	-	-	-	-	-	-	-	-	-	1	0	0
ACJ330	-	-	-	-	-	1	1	1	1	1	1	0	0	1
ACJ340	-	-	-	-	1	0	1	1	1	0	0	0	0	0
Avcraft (prev. Fairchild)	**4**	**9**	**9**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Envoy 3	4	9	9	1	-	-	-	-	-	-	-	-	-	-
Boeing Business Jets	**11**	**7**	**3**	**4**	**13**	**7**	**6**	**6**	**12**	**8**	**12**	**7**	**10**	**11**
Boeing Business Jet	9	4	2	3	12	7	3	3	4	8	2	5	3	4
Boeing Business Jet 2	2	3	1	1	1	0	1	0	2	0	2	1	2	1
Boeing Business Jet 3	-	-	-	-	-	-	2	1	4	0	0	0	0	1
Boeing Business Jet 747	-	-	-	-	-	-	-	-	-	-	8	0	0	0
Boeing Business Jet 767	-	-	-	-	-	-	-	1	0	0	0	0	0	0
Boeing Business Jet 777	-	-	-	-	-	-	-	1	2	0	0	0	1	1
Boeing Business Jet 787	-	-	-	-	-	-	-	-	-	-	-	1	4	4
Bombardier Business Aircraft	**101**	**70**	**130**	**188**	**213**	**224**	**247**	**173**	**150**	**182**	**179**	**180**	**204**	**n/a**
Learjet 31A	9	2	-	-	-	-	-	-	-	-	-	-	-	-
Learjet 40/XR	-	-	17	21	26	57	48	33	16	24	24	1	-	-
Learjet 45/XR	27	17	22	28	30									
Learjet 60/XR	17	12	9	18	15	23	26	13	12	19	15	10	1	n/a
Learjet 70/75	-	-	-	-	-	-	-	-	-	-	-	18	33	n/a
Challenger 300/350	-	1	28	50	55	51	60	33	29	37	48	55	54	n/a
Challenger 604/605	31	24	29	36	29	35	44	36	38	43	34	32	36	n/a
Global 5000	-	-	4	17	18	46	52	51	49	53	54	62	80	n/a
Global 6000/Express	17	14	20	13	22									
CL 850/870/890	-	-	1	5	18	12	17	7	6	6	4	2	0	n/a
Dassault Falcon Jet	**66**	**49**	**63**	**51**	**61**	**70**	**72**	**77**	**95**	**63**	**66**	**77**	**66**	**55**
Falcon 50EX	10	8	5	5	5	2	1	-	-	-	-	-	-	-
Falcon 900C	4	3	3	1	-	-	-	-	-	-	-	-	-	-
Falcon 900EX	17	6	1	-	-	-	-	-	-	-	-	-	-	-
Falcon 900DX	-	-	-	2	4	10	4	1	3	-	-	-	-	-
Falcon 900EX EASy	-	4	14	16	16	18	19	17	17	1	-	-	-	-
Falcon 900LX	-	-	-	-	-	-	-	-	4	11	7	11	8	-
Falcon 2000	35	12	11	6	6	1	-	-	-	-	-	-	-	-
Falcon 2000DX	-	-	-	-	-	-	3	1	-	-	-	-	-	-
Falcon 2000EX	-	16	10	-	-	-	-	-	-	-	-	-	-	-
Falcon 2000EX EASy	-	-	19	21	30	33	24	3	-	-	-	-	-	-
Falcon 2000LX	-	-	-	-	-	-	-	23	30	20	22	8	-	-
Falcon 2000LXS	-	-	-	-	-	-	-	-	-	-	-	3	18	-
Falcon 2000S	-	-	-	-	-	-	-	-	-	-	-	12	13	-
Falcon 7X	-	-	-	-	-	6	21	32	41	31	37	43	27	-
Falcon 2000S/2000LXS/900LX/7X	-	-	-	-	-	-	-	-	-	-	-	-	-	55
Embraer	**8**	**13**	**13**	**20**	**27**	**36**	**38**	**122**	**145**	**99**	**99**	**119**	**116**	**120**
Phenom 100/E	-	-	-	-	-	-	2	97	100	41	29	30	19	12
Phenom 300	-	-	-	-	-	-	-	1	26	42	48	60	73	70
Legacy 450	-	-	-	-	-	-	-	-	-	-	-	-	-	3
Legacy 500	-	-	-	-	-	-	-	-	-	-	-	-	3	20
Legacy 600/650	8	13	13	20	27	36	36	18	11	13	17	21	18	12
Lineage 1000/E190 Head of State	-	-	-	-	-	-	-	5	5	3	2	4	3	3
Shuttles (ERJs and E-Jets)	-	-	-	-	-	-	-	1	3	0	3	4	0	0
Emivest (prev. Sino Swearingen)	**0**	**0**	**0**	**0**	**1**	**1**	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**0**
SJ30-2	-	-	-	-	1	1	0	2	0	0	0	0	0	0
Gulfstream Aerospace Corporation	**85**	**74**	**78**	**89**	**113**	**138**	**156**	**94**	**99**	**99**	**94**	**144**	**150**	**154**
G100/150 (prev. IAI Astra)	9	24	22	26	42	59	68	19	24	21	11	23	33	34
G200 (prev. IAI Galaxy)	15													
G300/350/400/450 (prev. GIV/GIVSP)	29	50	56	63	71	79	88	75	75	78	83	121	117	120
G500/G550 (prev. GV/GVSP), G650	32													
Honda Aircraft Company	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**
HA-420 HondaJet	-	-	-	-	-	-	-	-	-	-	-	-	-	2
ONE Aviation Corp. (prev. Eclipse Aero)	**0**	**0**	**0**	**0**	**1**	**98**	**161**	**0**	**0**	**0**	**0**	**0**	**12**	**7**
Eclipse 500	-	-	-	-	1	98	161	-	-	-	-	-	-	-
Eclipse 550	-	-	-	-	-	-	-	-	-	-	-	-	12	7
Textron Aviation (Beechcraft)	**94**	**100**	**115**	**141**	**140**	**162**	**160**	**98**	**73**	**52**	**32**	**6**	**0**	**0**
Premier I/A	29	29	37	30	23	54	31	16	11	11	3	-	-	-
Hawker 400XP	19	24	28	53	53	41	35	11	12	1	-	-	-	-
Hawker 750	-	-	-	-	-	-	23	13	5	7	-	-	-	-
Hawker 800XP	46	47	50	58	8	-	-	-	-	1	-	-	-	-
Hawker 850XP	-	-	-	-	56	35	15	3	1	0	-	-	-	-
Hawker 900XP	-	-	-	-	-	32	50	35	28	22	17	-	-	-
Hawker 4000	-	-	-	-	-	-	6	20	16	10	12	6	-	-

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1.4a **Worldwide Business Jet Shipments by Manufacturer (2002–2015)** *Continued*

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Textron Aviation (Cessna Aircraft)	**305**	**196**	**181**	**247**	**307**	**388**	**466**	**289**	**178**	**183**	**181**	**139**	**159**	**166**
CE-510 Citation Mustang	-	-	-	-	1	45	101	125	73	43	38	20	8	8
CE-525 Citation CJ1	30	22	20	14	-	-	-	-	-	-	-	-	-	-
CE-525 Citation CJ1+	-	-	-	4	25	34	20	14	3	2	-	-	-	-
CE-525 Citation M2	-	-	-	-	-	-	-	-	-	-	-	12	46	41
CE-525A Citation CJ2	86	56	27	23	1	-	-	-	-	-	-	-	-	-
CE-525A Citation CJ2+	-	-	-	-	36	44	56	21	17	15	19	15	2	-
CE-525B Citation CJ3	-	-	6	48	72	78	88	40	20	22	21	15	6	-
CE-525B Citation CJ3+	-	-	-	-	-	-	-	-	-	-	-	-	10	23
CE-525C Citation CJ4	-	-	-	-	-	-	-	-	19	48	44	33	28	33
CE-550 Citation Bravo	41	31	25	21	18	-	-	-	-	-	-	-	-	-
CE-560 Citation Encore	36	21	24	13	12	-	-	-	-	-	-	-	-	-
CE-560 Citation Encore+	-	-	-	-	-	23	28	5	5	4	-	-	-	-
CE-560 Citation Excel	81	48	23	-	-	-	-	-	-	-	-	-	-	-
CE-560 Citation XLS	-	-	32	64	73	82	72	7	-	-	-	-	-	-
CE-560 Citation XLS+	-	-	-	-	-	-	8	37	22	27	31	31	22	21
CE-680 Citation Sovereign	-	-	9	46	57	65	77	33	16	19	22	5	-	-
CE-680 Citation Sovereign+	-	-	-	-	-	-	-	-	-	-	-	8	28	18
CE-680A Citation Latitude	-	-	-	-	-	-	-	-	-	-	-	-	-	16
CE-750 Citation X	31	18	15	14	12	17	16	7	3	3	6	-	-	-
CE-750 Citation X+	-	-	-	-	-	-	-	-	-	-	-	-	9	6
Total Number of Airplanes	**676**	**518**	**592**	**750**	**887**	**1,137**	**1,317**	**874**	**767**	**696**	**672**	**678**	**722**	**n/a**
% Change	-13.8%	-23.4%	14.3%	26.7%	18.3%	28.2%	15.8%	-33.6%	-12.2%	-9.3%	-3.4%	0.9%	6.5%	n/a
Total Billings for Airplanes ($M)	**10,427**	**8,616**	**10,404**	**13,161**	**16,555**	**19,347**	**21,948**	**17,443**	**18,000**	**17,235**	**17,108**	**21,058**	**22,015**	**n/a**
% Change	-13.9%	-17.4%	20.7%	26.5%	25.8%	16.9%	13.4%	-20.5%	3.2%	-4.2%	-0.7%	23.1%	4.5%	n/a

Source: GAMA

1.4b **Worldwide Turboprop Airplane Shipments by Manufacturer (2002–2015)**

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Air Tractor	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**130**	**168**	**174**	**145**	**113**
AT-402A	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	0	1	0	0	0
AT-402B	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	9	21	33	20	11
AT-502A	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	3	1	2	1	0
AT-502B	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	57	81	70	61	36
AT-504	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	4	6	2	3	3
AT-602	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	10	10	18	14	14
AT-802	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	26	18	9	10	8
AT-802A	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	21	30	40	36	29
AT-802AF	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	10
AT-802F	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	2
Daher (prev. SOCATA)	**34**	**34**	**31**	**31**	**42**	**46**	**60**	**36**	**38**	**38**	**38**	**40**	**51**	**55**
TBM 700	34	34	31	31	-	-	-	-	-	-	-	-	-	-
TBM 850	-	-	-	-	42	46	60	36	38	38	38	40	-	-
TBM 900	-	-	-	-	-	-	-	-	-	-	-	-	51	55
Extra Aircraft	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**1**	**2**	**0**
EA500	-	-	-	-	-	-	-	-	-	-	2	1	2	-
Maule Air Incorporated	**0**	**1**	**2**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
M-7-420AC	0	0	0	0	0	0	1	0	0	0	0	0	0	0
MT-7-420	0	1	2	0	0	0	0	0	0	0	0	0	0	0
Pacific Aerospace Corporation	**0**	**2**	**8**	**10**	**5**	**10**	**15**	**12**	**11**	**10**	**10**	**6**	**4**	**5**
PAC 750XL	0	2	8	10	5	10	15	12	11	10	10	6	4	5
Piaggio Aerospace	**14**	**12**	**16**	**14**	**19**	**21**	**30**	**24**	**11**	**14**	**5**	**2**	**2**	**3**
P.180 Avanti	14	12	16	13	-	-	-	-	-	-	-	-	-	-
P.180 Avanti II	-	-	-	1	19	21	30	24	11	14	5	2	2	-
P.180 Avanti Evo	-	-	-	-	-	-	-	-	-	-	-	-	-	3
Pilatus	**45**	**61**	**70**	**80**	**90**	**98**	**100**	**105**	**84**	**69**	**67**	**69**	**76**	**74**
PC-6 Porter	n/a	n/a	n/a	n/a	n/a	6	3	5	5	6	5	4	10	4
PC-12	45	61	70	80	90	92	97	100	79	63	62	65	66	70
Piper Aircraft, Inc.	**25**	**24**	**26**	**40**	**49**	**53**	**52**	**29**	**25**	**32**	**32**	**34**	**36**	**27**
PA-46-500 TP Meridian	25	24	26	40	49	53	52	29	25	32	32	34	36	27
Quest Aircraft Company	**0**	**0**	**0**	**0**	**0**	**1**	**7**	**24**	**14**	**13**	**15**	**28**	**30**	**32**
Kodiak 100	-	-	-	-	-	1	7	24	14	13	15	28	30	32
Textron Aviation (Beechcraft)	**82**	**81**	**102**	**114**	**140**	**157**	**172**	**119**	**90**	**92**	**89**	**135**	**127**	**117**
King Air C90	21	18	27	35	52	46	66	44	28	29	27	27	21	15
King Air B200 / B250	26	38	39	37	42	58	54	37	24	25	22	36	35	28
King Air 350	24	24	36	42	46	53	52	38	38	38	40	72	71	74
1900D	11	1	-	-	-	-	-	-	-	-	-	-	-	-
Textron Aviation (Cessna Aircraft)	**80**	**57**	**64**	**86**	**67**	**79**	**101**	**97**	**95**	**93**	**107**	**105**	**94**	**102**
CE-208 Caravan 675	14	8	13	11	8	11	12	12	8	10	11	11	13	9
CE-208B Grand Caravan	66	49	51	75	59	68	89	85	87	83	96	94	81	93
Thrush Aircraft, Inc.	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**35**	**51**	**51**	**36**	**29**
S2R-T34	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	30	39	20	10	8
S2RHG-T65	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	1	0	1	0	0
S2R-T660	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	1	0	1	1	7

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1.4b **Worldwide Turboprop Airplane Shipments by Manufacturer (2002–2015)** *Continued*

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Thrush Aircraft, Inc. (cont.)														
S2R-G10	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	3	3	2	1	0
S2R-H80	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	0	9	27	24	14
Total Number of Airplanes	**280**	**272**	**319**	**375**	**412**	**465**	**538**	**446**	**368**	**526**	**584**	**645**	**603**	**557**
% Change	-33.6%	-2.9%	17.3%	17.6%	9.9%	12.9%	15.7%	-17.1%	-17.5%	n/a	11.0%	10.4%	-6.5%	-7.6%
Total Billings for Airplanes ($M)	**868**	**837**	**997**	**1,189**	**1,389**	**1,593**	**1,953**	**1,589**	**1,300**	**1,365**	**1,359**	**1,821**	**1,849**	**1,651**
% Change	-28.3%	-3.5%	19.1%	19.3%	16.9%	14.6%	22.7%	-18.7%	-18.2%	n/a	-0.4%	33.9%	1.5%	-10.7%

Source: GAMA

1.4c **Worldwide Piston-Engine Airplane Shipments by Manufacturer (2002–2015)**

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Adam Aircraft	**0**	**0**	**0**	**2**	**4**	**3**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
A500	-	-	-	2	4	3	-	-	-	-	-	-	-	-
Air Tractor	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**1**	**0**
AT-401B	-	-	-	-	-	-	-	-	-	-	1	0	1	-
Alpha Aviation	**0**	**0**	**0**	**0**	**5**	**13**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
120T	-	-	-	-	-	2	-	-	-	-	-	-	-	-
160A	-	-	-	-	5	9	1	-	-	-	-	-	-	-
160Ai	-	-	-	-	-	2	0	-	-	-	-	-	-	-
American Champion	**53**	**63**	**94**	**89**	**60**	**70**	**54**	**26**	**37**	**29**	**18**	**26**	**30**	**19**
7EC Champ	-	-	-	-	1	21	7	1	0	3	0	3	1	1
7ECA Aurora	3	2	2	3	2	4	3	2	2	1	0	0	2	1
7GCAA Adventurer	12	9	12	12	6	6	2	1	2	0	0	0	0	0
7GCBC Citabria Explorer	13	12	24	26	16	8	8	4	4	6	3	1	3	0
8GCBC Scout	11	8	18	9	14	8	10	8	15	13	7	6	7	6
8KCAB Super Decathlon	14	32	38	39	21	23	24	10	14	6	8	10	14	6
8KCAB Xtreme Decathlon	-	-	-	-	-	-	-	-	-	-	-	6	3	5
Aviat Aircraft	**38**	**47**	**42**	**47**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
A-1A Husky	-	-	-	-	-	-	-	-	-	-	-	-	-	-
A-1B Husky	34	37	30	41	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Husky Pup	-	3	3	1	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
S-2C Pitts	4	7	9	5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Columbia Aircraft (prev. Lancair)	**24**	**51**	**78**	**114**	**185**	**152**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Columbia 300	24	19	-	-	-	-	-	-	-	-	-	-	-	-
Columbia 350	-	32	28	25	39	34	-	-	-	-	-	-	-	-
Columbia 400	-	-	50	89	146	118	-	-	-	-	-	-	-	-
Cirrus Aircraft	**397**	**469**	**553**	**600**	**721**	**710**	**549**	**266**	**264**	**255**	**253**	**276**	**308**	**301**
Cirrus SR20	105	112	91	116	150	112	115	28	42	48	84	32	31	31
Cirrus SR22	292	355	459	475	565	588	427	238	165	105	81	112	117	128
Cirrus SR22T	-	-	-	-	-	-	-	-	57	102	88	132	160	142
Cirrus SRV	-	2	3	9	6	10	7	-	-	-	-	-	-	-
Commander Aircraft	**7**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Commander 114B	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Commander 114TC	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Commander 115	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Commander 115TC	6	-	-	-	-	-	-	-	-	-	-	-	-	-
CubCrafters	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**47**	**58**	**63**	**60**	**52**
CC11-100 Sport Cub S2	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	2	0	2	0	0
CC11-160 Carbon Cub SS	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	38	57	52	53	47
CC18-180 Top Cub	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	7	1	9	7	5
Daher (prev. SOCATA)	**70**	**40**	**5**	**9**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
TB-9 Tampico	3	2	0	1	-	-	-	-	-	-	-	-	-	-
TB-10	7	7	3	4	-	-	-	-	-	-	-	-	-	-
TB-20	44	19	0	1	-	-	-	-	-	-	-	-	-	-
TB-21	14	9	2	3	-	-	-	-	-	-	-	-	-	-
TB-200	2	3	0	0	-	-	-	-	-	-	-	-	-	-
Diamond Aircraft	**155**	**228**	**261**	**329**	**438**	**471**	**308**	**163**	**130**	**185**	**156**	**139**	**202**	**144**
HK-36	-	-	-	-	-	-	-	13	10	3	3	1	0	1
DA-20	70	75	58	54	55	58	69	14	31	40	32	14	16	22
DA-40	85	153	203	207	220	232	154	98	57	72	93	102	136	75
DA-42	-	-	-	68	163	181	85	38	32	70	28	22	50	44
DA-62	-	-	-	-	-	-	-	-	-	-	-	-	-	2
Discovery Aviation (prev. Liberty)	**0**	**0**	**0**	**2**	**29**	**38**	**33**	**13**	**14**	**3**	**0**	**0**	**0**	**0**
XL2	-	-	-	2	29	38	33	13	14	3	0	0	0	0
Extra Aircraft	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**27**	**29**	**31**	**27**
EA300	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	27	29	31	27
Flight Design GmbH	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**89**	**76**	**89**	**88**	**59**
ASTM CT Series	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	89	76	89	88	59
Mahindra Aerospace (prev. GippsAero)	**0**	**19**	**20**	**22**	**20**	**17**	**19**	**11**	**14**	**10**	**14**	**12**	**17**	**14**
Airvan 8	-	19	20	22	20	17	19	11	14	10	14	12	17	14

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1.4c **Worldwide Piston-Engine Airplane Shipments by Manufacturer (2002–2015)** *Continued*

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Maule Air Incorporated	**46**	**31**	**25**	**27**	**38**	**36**	**27**	**7**	**4**	**4**	**9**	**6**	**2**	**13**
M-4-180A, V	-	-	-	1	7	5	-	-	-	-	-	-	1	-
M-7-235, A, B, C	21	12	8	11	8	6	7	1	3	-	1	-	1	-
M-7-260, C	3	4	3	4	2	4	4	4	-	1	3	4	-	-
MT-7-235	12	7	1	2	9	2	6	2	-	-	1	-	-	-
MT-7-260	1	-	-	2	4	-	-	-	-	-	-	-	-	-
MX-7-180, A, B, C, AC	4	6	5	3	4	6	4	-	1	1	1	1	-	12
MXT-7-160	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MXT-7-180, A, AC	5	2	8	4	4	12	6	-	-	2	3	-	-	-
M-8-235	-	-	-	-	-	1	-	-	-	-	-	-	-	-
M-9-235	-	-	-	-	-	-	-	-	-	-	-	1	-	1
Mooney International Corporation	**10**	**36**	**37**	**85**	**75**	**79**	**65**	**19**	**2**	**0**	**0**	**0**	**1**	**11**
M20M Bravo	-	5	9	20	5	1	-	-	-	-	-	-	-	-
M20R Ovation	-	-	-	-	-	-	-	-	-	-	-	-	-	-
M20R Ovation 2	8	30	28	65	63	20	21	4	0	0	0	0	0	3
M20S Eagle	-	-	-	-	-	-	-	-	-	-	-	-	-	-
M20S Eagle 2	2	1	-	-	-	-	-	-	-	-	-	-	-	-
M20TN Acclaim	-	-	-	-	7	58	44	15	2	0	0	0	1	8
Pacific Aerospace Corporation	**0**	**0**	**6**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
CT/4E Airtrainer	-	-	6	-	-	-	-	-	-	-	-	-	-	-
Piper Aircraft, Inc.	**265**	**205**	**163**	**193**	**189**	**168**	**216**	**61**	**135**	**104**	**126**	**154**	**136**	**111**
PA-28-161 Warrior III	29	31	18	37	19	27	23	8	23	15	20	2	3	20
PA-28-181 Archer III	38	49	19	16	29	16	7	1	21	2	4	48	45	25
PA-28R-201 Arrow IV	26	16	12	9	5	8	1	0	4	0	2	1	8	5
PA-32-301FT Piper 6X	-	10	24	18	10	12	0	-	-	-	-	-	-	-
PA-32-301XTC Piper 6XT	-	11	14	16	11	-	-	-	-	-	-	-	-	-
PA-32R-301 Saratoga II HP	5	9	9	8	10	-	-	-	-	-	-	-	-	-
PA-32-301T Saratoga II TC	45	28	31	37	37	39	12	-	-	-	-	-	-	-
PA-34-220T Seneca V	43	28	10	12	26	22	27	7	22	21	17	22	10	8
PA-44-180 Seminole	60	16	11	29	11	14	24	5	16	16	22	23	22	17
PA-46-350P Malibu Mirage M350	19	7	15	11	31	30	21	7	26	33	49	42	37	34
PA-46R-350T Matrix	-	-	-	-	-	-	101	33	23	17	12	16	11	2
Quartz Mountain Aerospace	**0**	**0**	**0**	**0**	**0**	**0**	**11**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
QMA 11E	-	-	-	-	-	-	11	-	-	-	-	-	-	-
Symphony Aircraft (prev. OMF)	**0**	**19**	**1**	**10**	**5**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Symphony 160	-	19	1	10	5	-	-	-	-	-	-	-	-	-
TECNAM Aircraft	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**197**	**190**	**191**
ASTM - LSA	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	108	108	102
P2002JF	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	33	18	20
P92JS	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	15	7	4
P2002JR	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	2	0	0
P2008JC	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	19	36	24
P2006T	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	20	21	21
P2010P Twenty Ten	-	-	-	-	-	-	-	-	-	-	-	-	-	20
Textron Aviation (Beechcraft)	**83**	**82**	**93**	**99**	**118**	**111**	**103**	**56**	**51**	**54**	**36**	**70**	**72**	**41**
Beechcraft Bonanza A/G36	51	55	62	71	80	73	63	36	22	24	12	35	32	23
Beechcraft Bonanza B36TC	5	-	-	-	-	-	-	-	-	-	-	-	-	-
Beechcraft Baron B/G58	27	27	31	28	38	38	40	20	29	30	24	35	40	18
Textron Aviation (Cessna Aircraft)	**559**	**588**	**654**	**822**	**865**	**807**	**733**	**355**	**261**	**413**	**283**	**206**	**220**	**271**
CE-162 SkyCatcher	-	-	-	-	-	-	-	1	22	168	19	-	-	-
CE-172R Skyhawk	57	58	32	37	87	133	55	16	8	26	27	0	0	-
CE-172S Skyhawk	258	291	204	314	322	240	228	110	77	77	113	106	155	143
CE-182T Skylane	109	118	196	241	140	161	109	58	64	40	48	13	0	33
CE-T182T Turbo Skylane	79	47	133	118	187	140	105	75	36	37	19	26	0	-
CE-206H Stationair	18	16	22	29	25	20	17	3	4	11	16	3	0	-
CE-T206H Turbo Stationair	38	58	67	83	104	111	95	46	42	53	40	37	43	51
CE-350 Corvalis	-	-	-	-	-	1	14	5	1	0	1	0	0	-
CE-240 TTx (prev. CE-400 Corvalis TTx)	-	-	-	-	-	1	110	41	7	1	0	21	22	44
Tiger Aircraft	**14**	**18**	**19**	**15**	**3**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
AG-5B Tiger	14	18	19	15	3	-	-	-	-	-	-	-	-	-
WACO Classic Aircraft	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**5**	**6**	**7**	**11**	**10**
2T-1A-2	-	-	-	-	-	-	-	-	-	-	-	1	6	6
YMF-5D	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	5	6	6	5	4
XtremeAir GmbH	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**9**	**9**	**8**	**9**	**0**
XA41	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	4	2	2	0	n/a
XA42	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	5	7	6	9	n/a
Total Number of Airplanes	**1,721**	**1,896**	**2,051**	**2,465**	**2,755**	**2,675**	**2,119**	**977**	**912**	**1,207**	**1,072**	**1,282**	**1,378**	**1,264**
% Change	-4.0%	10.2%	8.2%	20.2%	11.8%	-2.9%	-20.8%	-53.9%	-6.7%	n/a	-11.2%	n/a	7.5%	-8.3%
Total Billings for Airplanes ($M)	**483**	**545**	**692**	**805**	**857**	**897**	**945**	**442**	**415**	**441**	**428**	**571**	**635**	**601**
% Change	-10.7%	12.9%	27.0%	16.3%	6.5%	4.7%	5.3%	-53.1%	-7.7%	n/a	-3.0%	n/a	11.1%	-5.3%

Table 1.4c includes all piston engine airplanes delivered by the manufacturers listed, including type-certified piston-engine airplanes under airworthiness standards other than Part/CS-23, such as those type certified under EASA CS-Very Light Aircraft and CS-Light Sport Aircraft, as well as Special Light Sport Aircraft.

Source: GAMA

1.4d **Worldwide Rotorcraft Shipments by Manufacturer (2002–2015), Select Data (Including Select Military Data)**

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Airbus Helicopters (prev. Eurocopter)	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**378**	**334**	**364**	**324**	**279**
HC120 (prev. EC120)	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	9	11	11	7	2
AS350 B2	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	57	36	32	23	9
H125 (prev. AS350 B3)	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	142	124	174	122	90
H130 (prev. EC130)	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	42	43	35	58	69
AS355 NP	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	5	7	5	3	3
H135 (prev. EC135)	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	53	56	48	34	31
H145 (prev. EC145)	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	35	28	24	28	37
AC365 N3	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	7	7	8	4	4
H155 (prev. EC155)	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	12	7	10	10	8
H175 (prev. EC175)	-	-	-	-	-	-	-	-	-	-	-	-	3	4
H215 (prev. AS332)	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	1	0	0	2	3
H225 (prev. EC225)	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	15	15	17	30	19
Military (All Models)	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	141	87	94	81
Bell Helicopters (Civil Total)	**92**	**105**	**111**	**123**	**159**	**181**	**n/a**	**n/a**	**132**	**125**	**188**	**213**	**178**	**175**
206B	10	10	7	16	20	28	-	-	5	-	-	-	-	-
206L/LT	12	6	18	22	21	24	-	-	15	14	9	11	13	12
407	33	46	40	41	67	73	-	-	62	55	85	110	86	99
412	25	29	33	29	35	39	-	-	28	20	39	36	26	12
427	5	7	9	5	7	10	-	-	1	4	4	-	-	-
429	-	-	-	-	-	-	-	-	20	28	43	56	53	52
430	7	7	4	10	9	7	-	-	-	-	-	-	-	-
Huey II	-	-	-	-	-	-	-	-	1	4	8	-	-	-
H-1 (Military)	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	28	21	25	24	24
V22 (Military	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	35	38	41	37	24
Brantly	**1**	**1**	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
B-2B	1	1	0	2	0	0	0	0	0	0	0	0	0	0
Enstrom Helicopter Corp. (Civil Total)	**12**	**17**	**23**	**29**	**23**	**19**	**10**	**6**	**4**	**n/a**	**5**	**17**	**16**	**20**
F-28/280	4	7	5	15	10	6	1	1	1	n/a	2	4	2	5
480	8	10	18	14	13	13	9	5	3	n/a	3	13	14	15
F-28/280 (Military)	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	0	0	0	0
480 (Military)	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	11	10	10	0
Finmeccanica Helicopters (prev. AgustaWestland)	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**131**	**102**	**n/a**
AW119Ke	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	16	13	n/a
AW109Power	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	5	1	n/a
GRANDNEW	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	27	13	n/a
AW139	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	81	65	n/a
AW101	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	2	0	n/a
AW189	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	0	10	n/a
SW4	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	0	0	n/a
W3	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	0	0	n/a
Military (All Models)	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	83	78	n/a
Hélicoptères Guimbal	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**27**	**44**
Cabri G2	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	27	44
MD Helicopters	**12**	**16**	**10**	**3**	**13**	**18**	**52**	**40**	**12**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**
500	5	3	1	0	n/a	3	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
520N	3	1	0	2	n/a	3	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
530	0	3	1	0	n/a	2	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
600	0	1	4	1	n/a	3	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
900	4	8	4	0	n/a	7	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Robinson Helicopter Company	**255**	**422**	**690**	**806**	**749**	**823**	**893**	**433**	**162**	**356**	**517**	**523**	**329**	**347**
R22	107	128	234	243	97	159	164	25	40	56	40	42	42	34
R44 Raven I / II	148	294	456	563	652	664	729	408	112	212	286	289	186	196
R66	-	-	-	-	-	-	-	-	10	88	191	192	101	117
Schweitzer	**32**	**38**	**48**	**58**	**61**	**70**	**51**	**27**	**29**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**
300C	13	20	13	12	12	11	16	10	14	n/a	n/a	n/a	n/a	n/a
300CB/300CBi	17	15	27	40	44	51	27	13	6	n/a	n/a	n/a	n/a	n/a
330/333	2	3	8	6	5	8	8	4	9	n/a	n/a	n/a	n/a	n/a
Sikorsky	**6**	**23**	**34**	**49**	**52**	**79**	**78**	**58**	**42**	**n/a**	**n/a**	**63**	**59**	**29**
S-70	0	0	1	0	0	0	0	0	0	0	0	0	0	0
S-76	6	23	29	30	36	50	53	34	21	n/a	n/a	26	17	13
S-92	0	0	4	19	16	29	25	24	21	n/a	n/a	37	42	16
Military (All Models)	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	168	172	149

Finmeccanica Helicopters Q4 data was not available at time of publication. Q4 data will be published on March 16, 2016 by Finmeccanica. GAMA will update the online 2015 shipment report then at www.GAMA.aero.

Source: GAMA, Aerospace Industries Association, and company reports.

1.5 U.S.-Manufactured General Aviation Airplane Shipments by Type (1946–2015)

Year	Grand Total	Single-Engine Piston	Multi-Engine Piston	Total Piston	Turboprop	Business Jet	Total Turbine	Companies Reporting	Factory Net Billings ($ Millions)
1946	**35,000**	n/a	n/a	**35,000**	-	-	-	-	$111
1947	**15,594**	n/a	n/a	**15,594**	-	-	-	15	$58
1948	**7,037**	n/a	n/a	**7,037**	-	-	-	12	$32
1949	**3,405**	n/a	n/a	**3,405**	-	-	-	11	$18
1950	**3,386**	n/a	n/a	**3,386**	-	-	-	13	$19
1951	**2,302**	n/a	n/a	**2,302**	-	-	-	12	$17
1952	**3,058**	n/a	n/a	**3,058**	-	-	-	8	$27
1953	**3,788**	n/a	n/a	**3,788**	-	-	-	7	$34
1954	**3,071**	n/a	n/a	**3,071**	-	-	-	7	$43
1955	**4,434**	n/a	n/a	**4,434**	-	-	-	7	$68
1956	**6,738**	n/a	n/a	**6,738**	-	-	-	8	$104
1957	**6,118**	n/a	n/a	**6,118**	-	-	-	9	$100
1958	**6,414**	n/a	n/a	**6,414**	-	-	-	10	$102
1959	**7,689**	6,849	840	**7,689**	-	-	-	9	$130
1960	**7,588**	6,569	1,019	**7,588**	-	-	-	8	$151
1961	**6,756**	5,995	761	**6,756**	-	-	-	8	$124
1962	**6,697**	5,690	1,007	**6,697**	-	-	-	7	$137
1963	**7,569**	6,248	1,321	**7,569**	-	-	-	7	$153
1964	**9,336**	7,718	1,606	**9,324**	9	3	**12**	8	$199
1965	**11,852**	9,873	1,780	**11,653**	87	112	**199**	8	$318
1966	**15,768**	13,250	2,192	**15,442**	165	161	**326**	10	$445
1967	**13,577**	11,557	1,773	**13,330**	149	98	**247**	14	$360
1968	**13,698**	11,398	1,959	**13,357**	248	93	**341**	14	$426
1969	**12,457**	10,054	2,078	**12,132**	214	111	**325**	14	$585
1970	**7,292**	5,942	1,159	**7,101**	135	56	**191**	13	$337
1971	**7,466**	6,287	1,043	**7,330**	89	47	**136**	11	$322
1972	**9,774**	7,898	1,548	**9,446**	179	149	**328**	12	$558
1973	**13,646**	10,780	2,413	**13,193**	247	206	**453**	12	$828
1974	**14,166**	11,562	2,135	**13,697**	250	219	**469**	12	$909
1975	**14,056**	11,439	2,116	**13,555**	305	196	**501**	12	$1,033
1976	**15,449**	12,783	2,120	**14,903**	359	187	**546**	12	$1,226
1977	**16,907**	14,057	2,195	**16,252**	428	227	**655**	12	$1,488
1978	**17,811**	14,398	2,634	**17,032**	548	231	**779**	12	$1,781
1979	**17,050**	13,286	2,843	**16,129**	639	282	**921**	12	$2,165
1980	**11,860**	8,640	2,116	**10,756**	778	326	**1,104**	12	$2,486
1981	**9,457**	6,608	1,542	**8,150**	918	389	**1,307**	12	$2,920
1982	**4,266**	2,871	678	**3,549**	458	259	**717**	11	$2,000
1983	**2,691**	1,811	417	**2,228**	321	142	**463**	10	$1,470
1984	**2,431**	1,620	371	**1,991**	271	169	**440**	9	$1,681
1985	**2,029**	1,370	193	**1,563**	321	145	**466**	9	$1,431
1986	**1,495**	985	138	**1,123**	250	122	**372**	9	$1,262
1987	**1,085**	613	87	**700**	263	122	**385**	9	$1,364
1988	**1,143**	628	67	**695**	291	157	**448**	11	$1,923
1989	**1,535**	1,023	87	**1,110**	268	157	**425**	11	$1,804
1990	**1,144**	608	87	**695**	281	168	**449**	14	$2,008
1991	**1,021**	564	49	**613**	222	186	**408**	14	$1,968
1992	**941**	552	41	**593**	177	171	**348**	16	$1,840
1993	**964**	516	39	**555**	211	198	**409**	16	$2,144
1994	**929**	444	55	**499**	208	222	**430**	13	$2,357
1995	**1,077**	515	61	**576**	255	246	**501**	13	$2,842
1996	**1,171**	607	42	**649**	289	233	**522**	13	$3,048
1997	**1,562**	898	86	**984**	236	342	**578**	12	$4,593
1998	**2,212**	1,434	94	**1,528**	271	413	**684**	12	$5,761
1999	**2,530**	1,634	114	**1,748**	265	517	**782**	13	$7,843
2000	**2,816**	1,810	103	**1,913**	315	588	**903**	15	$8,558
2001	**2,631**	1,581	147	**1,728**	303	600	**903**	14	$8,641
2002	**2,207**	1,366	130	**1,496**	187	524	**711**	12	$7,719
2003	**2,137**	1,519	71	**1,590**	163	384	**547**	13	$6,434
2004	**2,355**	1,706	52	**1,758**	194	403	**597**	13	$6,816
2005	**2,857**	2,024	71	**2,095**	240	522	**762**	13	$8,667
2006	**3,147**	2,208	79	**2,287**	256	604	**860**	16	$10,367
2007	**3,279**	2,097	77	**2,174**	290	815	**1,105**	16	$11,941
2008	**3,079**	1,700	91	**1,791**	333	955	**1,288**	15	$13,348
2009	**1,585**	770	32	**802**	269	514	**783**	13	$9,082
2010	**1,334**	679	67	**746**	224	364	**588**	12	$7,875
2011	**1,465**	639	67	**706**	395	364	**759**	16	$8,266
2012	**1,518**	645	63	**708**	463	347	**810**	17	$8,017
2013	**1,615**	674	80	**754**	527	334	**861**	17	$11,069
2014	**1,631**	716	72	**788**	468	375	**843**	16	$11,688
2015	**n/a**	740	43	**783**	420	n/a	**n/a**	17	n/a

Source: GAMA

1.6 U.S.-Manufactured General Aviation Airplane Billings (in Millions of Dollars) by Type (1978–2015)

Year	Grand Total	Single-Engine Piston	Multi-Engine Piston	Total Piston	Turboprop	Business Jet	Total Turbine
1978	**1,781**	516	493	**1,009**	394	378	**772**
1979	**2,165**	523	555	**1,078**	548	540	**1,088**
1980	**2,486**	391	403	**794**	875	816	**1,691**
1981	**2,920**	327	348	**675**	1,120	1,125	**2,245**
1982	**2,000**	200	220	**420**	590	990	**1,580**
1983	**1,470**	145	115	**260**	460	750	**1,210**
1984	**1,681**	147	133	**280**	436	966	**1,402**
1985	**1,431**	126	68	**194**	524	713	**1,237**
1986	**1,262**	80	43	**123**	430	709	**1,139**
1987	**1,364**	80	18	**98**	477	789	**1,266**
1988	**1,918**	66	12	**78**	596	1,242	**1,838**
1989	**1,804**	104	24	**128**	524	1,149	**1,673**
1990	**2,008**	68	24	**92**	644	1,272	**1,916**
1991	**1,968**	n/a	n/a	**93**	527	1,348	**1,875**
1992	**1,840**	n/a	n/a	**96**	460	1,284	**1,744**
1993	**2,144**	n/a	n/a	**76**	595	1,473	**2,068**
1994	**2,357**	n/a	n/a	**81**	595	1,681	**2,276**
1995	**2,842**	n/a	n/a	**123**	653	2,066	**2,719**
1996	**3,048**	n/a	n/a	**142**	715	2,191	**2,906**
1997	**4,580**	n/a	n/a	**200**	727	3,653	**4,380**
1998	**5,761**	n/a	n/a	**330**	763	4,668	**5,431**
1999	**7,843**	n/a	n/a	**385**	658	6,800	**7,458**
2000	**8,558**	n/a	n/a	**446**	934	7,178	**8,112**
2001	**8,641**	n/a	n/a	**471**	742	7,428	**8,170**
2002	**7,719**	n/a	n/a	**389**	487	6,843	**7,330**
2003	**6,434**	n/a	n/a	**440**	411	5,583	**5,994**
2004	**6,816**	n/a	n/a	**568**	555	5,693	**6,248**
2005	**8,667**	n/a	n/a	**712**	749	7,205	**7,954**
2006	**10,367**	n/a	n/a	**722**	853	8,792	**9,645**
2007	**11,941**	n/a	n/a	**712**	1,001	10,227	**11,228**
2008	**13,348**	n/a	n/a	**836**	1,172	11,340	**12,513**
2009	**9,082**	n/a	n/a	**389**	872	7,821	**8,693**
2010	**7,875**	n/a	n/a	**368**	724	6,782	**7,506**
2011	**8,266**	n/a	n/a	**368**	831	7,068	**7,898**
2012	**8,017**	n/a	n/a	**374**	867	6,776	**7,643**
2013	**11,069**	n/a	n/a	**456**	1,358	9,255	**10,613**
2014	**11,688**	n/a	n/a	**484**	1,316	9,888	**11,204**
2015	**n/a**	n/a	n/a	**477**	1,282	n/a	**n/a**

Source: GAMA

1.7 U.S.-Manufactured General Aviation Airplane Exports by Type and Billings (1978–2015)

Year	Single-Engine Piston	Multi-Engine Piston	Turboprop	Business Jet	Total Airplanes Exported		Billings Exported	
					Units	% of Shipments	(in $ Millions)	% of Total Billings
1978	2,712	652	166	82	3,612	20.3%	$486.7	27.3%
1979	2,942	774	181	98	3,995	23.4%	$600.9	27.8%
1980	2,565	635	245	110	3,555	29.9%	$756.4	30.4%
1981	1,546	363	259	102	2,270	24.0%	$749.0	25.7%
1982	718	227	135	82	1,162	27.2%	$650.2	32.5%
1983	298	119	66	30	513	19.1%	$316.5	21.5%
1984	199	79	25	31	334	13.7%	$260.7	15.5%
1985	208	69	49	28	354	17.4%	$230.0	16.1%
1986	272	69	68	32	441	29.5%	$343.6	27.2%
1987	252	60	78	49	439	40.5%	$469.3	34.4%
1988	220	52	91	62	425	37.2%	$626.8	32.7%
1989	385	46	78	57	566	36.9%	$587.0	32.5%
1990	224	57	86	91	458	40.0%	$872.2	43.4%
1991	204	25	74	79	382	37.4%	$807.0	41.0%
1992	196	16	90	51	353	39.0%	$608.7	33.0%
1993	149	23	109	68	349	36.2%	$856.8	40.0%
1994	84	42	84	67	277	29.8%	$684.2	29.0%
1995	130	30	85	70	315	29.3%	$815.9	28.7%
1996	126	24	135	60	345	30.5%	$903.0	28.9%
1997	199	25	126	99	449	28.6%	$1,504.6	32.2%
1998	268	30	131	106	535	24.1%	$1,640.1	27.9%
1999	237	23	42	158	562	22.3%	$2,503.8	31.6%
2000	285	24	112	148	569	20.2%	$1,957.5	22.9%
2001	175	42	118	170	505	19.2%	$2,380.6	27.5%
2002	135	23	79	136	372	16.8%	$1,980.9	25.4%
2003	168	22	52	94	336	15.7%	$1,218.2	18.9%
2004	181	9	55	88	333	14.1%	$1,419.6	20.8%
2005	301	18	66	172	557	19.5%	$2,585.9	29.8%
2006	535	30	74	252	891	28.3%	$4,395.5	42.4%
2007	665	33	131	313	1,142	34.8%	$4,587.0	38.4%
2008	556	40	175	410	1,161	37.7%	$5,863.8	43.9%
2009	341	15	121	255	732	46.2%	$4,612.7	50.8%
2010	299	45	151	194	689	51.6%	$4,867.8	61.8%
2011	249	50	121	112	486	36.3%	$4,585.8	55.5%
2012	263	40	243	174	720	47.7%	$4,791.1	59.8%
2013	255	49	245	142	691	42.8%	$5,616.9	50.7%
2014	273	37	248	138	696	42.7%	$5,419.2	46.4%
2015	170	23	203	n/a	n/a	n/a	n/a	n/a

Source: GAMA

1.8 European-Manufactured General Aviation Airplane Shipments by Type (2008–2015)

Year	Grand Total	Single-Engine Piston	Multi-Engine Piston	Total Piston	Turboprop	Business Jet	Total Turbine	Companies Reporting	Factory Net Billings ($ Millions)
2008	**579**	223	85	**308**	190	81	**271**	6	$3,966.6
2009	**416**	125	38	**163**	165	88	**253**	6	$4,552.5
2010	**380**	98	41	**139**	133	108	**241**	6	$5,556.0
2011	**468**	204	70	**274**	121	73	**194**	7	$3,987 .9
2012	**446**	231	28	**259**	112	75	**187**	8	$4,063 .3
2013	**657**	420	42	**462**	112	83	**195**	10	$4,533.9
2014	**722**	449	71	**520**	131	71	**202**	10	$3,825.3
2015	**612**	354	67	**421**	132	59	**191**	9	$3,736.2

An aircraft is considered manufactured in Europe when produced under an EASA production approval.
EASA rules require production approvals for all aircraft including CS-VLA and CS-SLSA models.

Source: GAMA

U.S. and Canada General Aviation Fleet, Flight Activity, and Forecast

CHAPTER 2

2.1 Active U.S. General Aviation and On-Demand Part 135 Aircraft by Primary Use and Aircraft Type (2014)

		General Aviation FAR Part 91 Use												On-Demand FAR Part 135 Use		
Aircraft Type	**Total Active (77.9% of 268,443)**	**Personal/ Recreational**	**Business (w/o crew)**	**Business (with crew)**	**Instruc-tional**	**Aerial Apps.**	**Aerial Obs.**	**Other Aerial App.**	**External Load**	**Other Work**	**Sight-seeing**	**Air Medical**	**Other**	**Air Taxi**	**Air Tours**	**Air Medical**
Total All Aircraft	**204,408**	**135,716**	**15,794**	**11,888**	**13,163**	**3,126**	**5,958**	**948**	**268**	**1,154**	**1,663**	**625**	**4,912**	**6,937**	**418**	**1,839**
% Std. Error	1.4%	2.0%	1.7%	1.0%	1.6%	1.0%	1.2%	0.9%	0.7%	1.3%	1.6%	1.4%	1.2%	0.7%	0.7%	0.6%
Piston Total	**139,182**	**102,546**	**12,776**	**2,225**	**10,398**	**931**	**3,127**	**296**	**0**	**632**	**834**	**473**	**2,699**	**2,018**	**139**	**88**
One-Engine Piston	126,036	95,705	10,333	1303	9,419	908	2,747	205	0	612	707	409	2,383	1140	102	62
Two-Engine Piston	13,146	6,841	2,443	922	979	23	380	91	0	21	127	64	316	878	37	25
Turboprop Total	**9,777**	**1,410**	**1,190**	**2,190**	**121**	**1,564**	**591**	**272**	**3**	**231**	**6**	**24**	**454**	**1,462**	**35**	**225**
One-Engine Turboprop	4,590	735	627	558	33	1,557	33	118	0	71	3	15	229	538	32	40
Two-Engine Turboprop	5,188	675	563	1,632	88	8	557	154	3	160	3	8	225	923	2	185
Business Jet	**12,362**	**1,412**	**777**	**6,801**	**68**	**0**	**34**	**17**	**0**	**56**	**0**	**2**	**499**	**2,524**	**0**	**173**
Rotorcraft Total	**9,966**	**1,158**	**305**	**295**	**1,596**	**538**	**2,054**	**354**	**259**	**91**	**109**	**125**	**696**	**867**	**218**	**1,300**
Piston Total	3,154	889	188	19	1,233	221	334	25	9	26	84	0	50	71	5	0
Turbine Total	6,812	269	117	276	364	317	1,719	329	250	65	25	125	646	796	214	1,300
- One-Engine Turbine	5,127	218	101	134	356	298	1,669	253	204	54	25	63	294	535	209	713
- Two-Engine Turbine	1,685	50	16	142	8	19	50	76	46	11	0	62	352	262	5	587
Gliders	**1,791**	**1,415**	**2**	**0**	**310**	**0**	**2**	**0**	**0**	**0**	**29**	**0**	**33**	**0**	**0**	**0**
Lighter-Than-Air	**2,908**	**2,176**	**3**	**0**	**60**	**0**	**0**	**0**	**0**	**49**	**586**	**0**	**8**	**0**	**26**	**0**
Experimental Total	**26,191**	**23,800**	**664**	**378**	**317**	**92**	**137**	**8**	**6**	**86**	**98**	**2**	**483**	**66**	**0**	**53**
Amateur-Built	18,873	17,752	575	16	108	57	72	1	0	8	2	0	247	34	0	1
Exhibition	1,893	1,609	23	0	24	0	9	0	0	40	96	0	93	0	0	0
Exp. Light-Sport	4,204	3831	4	160	123	2	19	0	0	30	0	0	34	0	0	0
Other Experimental	1,221	608	63	202	62	33	38	7	6	7	0	2	109	31	0	52
Special Light-Sport	**2,231**	**1,798**	**77**	**0**	**294**	**0**	**13**	**0**	**0**	**9**	**0**	**0**	**40**	**0**	**0**	**0**

Source: FAA Survey

2.2 U.S. General Aviation and On-Demand Part 135 Total Hours Flown by Use and Aircraft Type (2014)

		General Aviation FAR Part 91 Use												On-Demand FAR Part 135 Use		
Aircraft Type	**Total Hours**	**Personal/ Recreational**	**Business (w/o crew)**	**Business (with crew)**	**Instruc-tional**	**Aerial Apps.**	**Aerial Obs.**	**Other Aerial App.**	**External Load**	**Other Work**	**Sight-seeing**	**Air Medical**	**Other**	**Air Taxi**	**Air Tours**	**Air Medical**
Total All Aircraft	**23,271,185**	**6,859,729**	**1,744,557**	**2,839,737**	**3,818,247**	**940,095**	**1,496,471**	**170,050**	**161,006**	**250,113**	**176,010**	**109,820**	**1,051,554**	**2,630,797**	**293,823**	**729,177**
% Std. Error	1.0%	0.9%	2.5%	3.0%	3.2%	5.7%	5.2%	9.0%	14.8%	9.3%	9.8%	13.5%	3.2%	3.9%	14.4%	6.7%
Piston Total	**11,967,414**	**5,133,724**	**1,304,427**	**259,012**	**3,021,393**	**217,712**	**743,061**	**31,768**	**-**	**103,198**	**86,968**	**44,188**	**379,976**	**553,555**	**63,697**	**24,260**
One-Engine Piston	10,394,829	4,736,933	1,083,712	120,163	2,671,710	215,920	631,637	17,050	-	101,365	82,623	38,116	338,358	293,773	47,034	15,960
Two-Engine Piston	1,572,584	396,791	220,715	138,849	349,683	1,792	111,424	14,718	-	1,833	4,345	6,071	41,618	259,783	16,663	8,299
Turboprop Total	**2,612,979**	**208,803**	**175,289**	**466,952**	**51,078**	**562,357**	**199,119**	**47,344**	**401**	**56,959**	**960**	**9,100**	**130,727**	**586,263**	**22,442**	**95,184**
One-Engine Turboprop	1,279,507	109,244	90,742	152,237	12,290	541,351	21,339	22,958	8	20,675	824	5,679	53,625	200,905	20,744	26,885
Two-Engine Turboprop	1,333,472	99,559	84,547	314,715	38,788	21,007	177,781	24,386	393	36,284	136	3,422	77,102	385,358	1,698	68,299
Business Jet	**3,881,105**	**268,824**	**160,101**	**1,947,463**	**16,110**	**-**	**4,560**	**3,456**	**31**	**19,646**	**475**	**1,119**	**332,589**	**1,045,745**	**3,342**	**77,643**
Rotorcraft Total	**3,242,338**	**113,794**	**47,017**	**96,098**	**620,348**	**140,516**	**534,290**	**86,750**	**156,801**	**46,813**	**52,741**	**50,465**	**157,809**	**419,915**	**202,468**	**516,514**
Piston Total	818,363	79,188	25,878	4,025	459,655	46,532	95,994	2,731	4,533	9,095	36,086	-	20,777	24,687	8,688	-
Turbine Total	2,423,975	34,605	21,138	92,073	160,693	93,984	438,297	84,019	152,268	37,717	16,655	49,971	137,032	395,228	193,780	516,514
- One-Engine Turbine	1,871,158	29,621	16,858	46,852	151,430	89,391	416,810	57,337	126,084	31,889	16,589	33,955	88,031	293,843	190,711	281,755
- Two-Engine Turbine	552,817	4,985	4,280	45,221	9,263	4,593	21,486	26,682	26,184	5,828	66	16,016	49,001	101,385	3,069	234,759
Gliders	**78,553**	**47,388**	**-**	**-**	**23,029**	**-**	**-**	**-**	**-**	**-**	**4,376**	**-**	**3,422**	**-**	**-**	**-**
Lighter-than-air	**79,709**	**36,218**	**966**	**-**	**2,533**	**-**	**-**	**-**	**-**	**13,475**	**25,296**	**-**	**-**	**-**	**675**	**-**
Experimental Total	**1,243,590**	**948,147**	**51,461**	**69,999**	**30,200**	**19,405**	**14,518**	**732**	**3,299**	**9,771**	**4,908**	**4,944**	**44,205**	**25,226**	**1,199**	**15,577**
Amateur-Built	833,614	733,323	41,492	887	15,299	5,721	3,919	245	-	293	2,449	-	19,103	10,239	51	592
Exhibition	78,950	62,050	1,786	6	1,555	-	308	-	-	5,177	2,115	33	5,920	-	-	-
Exp. Light-Sport	142,467	120,050	2,796	7,344	4,248	45	1,132	-	-	2,831	6	-	4,015	-	-	-
Other Experimental	188,559	32,725	5,387	61,761	9,098	13,639	9,158	487	3,299	1,471	338	4,910	15,167	14,986	1,148	14,985
Special Light-sport	**165,497**	**102,832**	**5,081**	**71**	**53,556**	**-**	**777**	**-**	**-**	**251**	**286**	**5**	**2,545**	**93**	**-**	**-**

Source: FAA Survey

The Federal Aviation Administration's (FAA) annual general aviation survey categorizes the **uses of general aviation aircraft** as follows:

- personal (and recreational) flying;
- business transportation without a paid crew (that is, an individual using an aircraft for business without a paid, professional crew); and
- business transportation with a paid, professional crew (previously called "corporate").

In addition, the following forms of business operations are included in general aviation operations:

- instructional flying (operations under the supervision of a flight instructor including solo flight);
- sight-seeing (commercial sight-seeing operations under FAR Part 91); and
- on-demand FAR Part 135 operations including air taxi (that is, charter), air tours, and airmedical operations.

2.3 Active U.S. General Aviation and On-Demand Part 135 Aircraft by Type (1980–2014) and Forecast (2015–2035)

		Airplane			Rotorcraft		Balloons, Dirigibles, Gliders	Experimental	Light-Sport Aircraft		
Year	Total Aircraft	Piston	Turboprop	Business Jet	Piston	Turbine			Total	Experimental	Special
1980	**211,039**	193,012	4,089	2,992	2,794	3,207	4,945	-	-	-	-
1981	**213,219**	193,367	4,659	3,170	3,250	3,724	5,049	-	-	-	-
1982	**209,778**	189,195	5,186	3,996	2,419	3,749	5,233	-	-	-	-
1983	**213,292**	191,479	5,453	3,898	2,541	3,998	5,923	-	-	-	-
1984	**220,941**	197,442	5,808	4,320	2,936	4,160	6,275	-	-	-	-
1985	**210,853**	188,191	5,607	4,374	2,877	3,541	6,263	-	-	-	-
1986	**219,325**	195,647	5,244	4,481	2,921	4,022	7,010	-	-	-	-
1987	**217,202**	194,454	5,274	4,358	2,813	3,520	6,783	-	-	-	-
1988	**210,246**	187,536	5,259	4,188	2,584	3,822	6,857	-	-	-	-
1989	**219,738**	193,815	6,324	4,402	3,244	4,232	7,721	-	-	-	-
1990	**212,230**	187,774	5,652	4,375	3,459	3,938	7,032	-	-	-	-
1991	**196,874**	173,518	4,941	4,126	2,390	3,848	8,051	-	-	-	-
1992	**185,650**	162,881	4,786	4,004	2,348	3,631	8,000	-	-	-	-
1993	**177,120**	149,156	4,116	3,663	1,846	2,875	5,037	10,426	-	-	-
1994	**172,935**	142,152	4,092	3,914	1,627	3,101	5,906	12,144	-	-	-
1995	**188,089**	152,788	4,995	4,559	1,863	3,967	4,741	15,176	-	-	-
1996	**191,129**	153,551	5,716	4,424	2,507	4,063	4,244	16,625	-	-	-
1997	**192,414**	156,056	5,619	5,178	2,259	4,527	4,092	14,680	-	-	-
1998	**204,710**	162,963	6,174	6,066	2,545	4,881	5,580	16,502	-	-	-
1999	**219,464**	171,923	5,679	7,120	2,564	4,884	6,765	20,528	-	-	-
2000	**217,534**	170,513	5,762	7,001	2,680	4,470	6,701	20,407	-	-	-
2001	**211,446**	163,314	6,596	7,787	2,292	4,491	6,545	20,421	-	-	-
2002	**211,244**	161,087	6,841	8,355	2,351	4,297	6,377	21,936	-	-	-
2003	**209,708**	160,938	7,689	7,997	2,123	4,403	6,008	20,550	-	-	-
2004	**219,426**	165,189	8,379	9,298	2,315	5,506	5,939	22,800	-	-	-
2005	**224,352**	167,608	7,942	9,823	3,039	5,689	6,454	23,627	170	-	-
2006	**221,942**	163,743	8,063	10,379	3,264	5,895	6,278	23,047	1,273	-	-
2007	**231,607**	166,907	9,514	10,385	2,769	6,798	5,940	23,228	6,066	-	-
2008	**228,663**	163,013	8,906	11,042	3,498	6,378	5,652	23,364	6,811	-	-
2009	**223,877**	157,123	9,055	11,268	3,499	6,485	5,480	24,419	6,547	5,077	1,470
2010	**223,370**	155,419	9,369	11,484	3,588	6,514	5,684	24,784	6,528	4,878	1,650
2011	**n/a**	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2012	**209,034**	143,160	10,304	11,793	3,292	6,763	5,006	26,715	-	4,631	2,001
2013	**199,927**	137,655	9,619	11,637	3,137	6,628	4,278	24,918	-	4,157	2,056
2014	**204,408**	139,182	9,777	12,362	3,154	6,812	4,699	26,191	-	4,204	2,231
Forecast											
2015	**198,780**	135,610	9,390	11,915	3,335	7,105	4,190	24,880	-	-	2,355
2016	**198,740**	134,580	9,330	12,105	3,435	7,375	4,180	25,220	-	-	2,515
2017	**198,855**	133,590	9,295	12,325	3,530	7,645	4,185	25,605	-	-	2,680
2018	**198,940**	132,570	9,280	12,555	3,620	7,915	4,170	25,990	-	-	2,840
2019	**199,105**	131,590	9,285	12,815	3,705	8,165	4,155	26,380	-	-	3,010
2020	**199,410**	130,690	9,315	13,115	3,785	8,410	4,130	26,795	-	-	3,170
2021	**199,790**	129,815	9,360	13,440	3,865	8,655	4,115	27,210	-	-	3,330
2022	**200,255**	128,960	9,445	13,790	3,940	8,895	4,100	27,630	-	-	3,495
2023	**200,740**	128,105	9,545	14,165	4,015	9,130	4,085	28,040	-	-	3,655
2024	**201,310**	127,265	9,690	14,575	4,090	9,360	4,060	28,460	-	-	3,810
2025	**201,970**	126,450	9,855	15,000	4,165	9,595	4,060	28,875	-	-	3,970
2026	**202,730**	125,660	10,060	15,460	4,240	9,830	4,055	29,300	-	-	4,125
2027	**203,610**	124,910	10,305	15,945	4,315	10,070	4,065	29,725	-	-	4,275
2028	**204,540**	124,170	10,565	16,455	4,395	10,310	4,070	30,155	-	-	4,420
2029	**205,535**	123,480	10,845	16,995	4,475	10,555	4,065	30,555	-	-	4,565
2030	**206,680**	122,865	11,155	17,565	4,555	10,805	4,055	30,975	-	-	4,705
2031	**207,905**	122,295	11,485	18,155	4,640	11,055	4,050	31,385	-	-	4,840
2032	**209,280**	121,815	11,840	18,775	4,725	11,310	4,045	31,795	-	-	4,975
2033	**210,770**	121,405	12,200	19,430	4,810	11,575	4,035	32,210	-	-	5,105
2034	**212,435**	121,115	12,580	20,105	4,900	11,850	4,030	32,625	-	-	5,230
2035	**214,260**	120,945	12,970	20,815	4,990	12,120	4,020	33,040	-	-	5,360
Average Annual Growth											
2014–35	**0.4%**	**-0.6%**	**1.5%**	**2.8%**	**2.1%**	**2.8%**	**-0.2%**	**1.4%**	**-**	**-**	**4.3%**

See methodology under Table 2.4 for explanation.

Source: FAA Survey and Forecast

2.4 U.S. General Aviation and On-Demand Part 135 Estimated Hours Flown (in Thousands) by Type (1980–2014) and Forecast (2015–2035)

		Airplane			Rotorcraft		Balloons, Dirigibles, Gliders	Experimental	Light-Sport Aircraft		
Year	Total Hours	Piston	Turboprop	Business Jet	Piston	Turbine			Total	Experimental	Special
1980	**41,016**	34,747	2,240	1,332	736	1,603	359	-	-	-	-
1981	**40,704**	34,086	2,155	1,387	930	1,754	391	-	-	-	-
1982	**36,457**	29,950	2,168	1,611	579	1,771	379	-	-	-	-
1983	**35,249**	28,911	2,173	1,473	572	1,700	420	-	-	-	-
1984	**36,119**	29,194	2,506	1,566	592	1,903	358	-	-	-	-
1985	**31,456**	25,666	1,921	1,498	521	1,468	382	-	-	-	-
1986	**31,782**	24,805	2,661	1,527	742	1,682	364	-	-	-	-
1987	**30,883**	24,969	2,010	1,411	602	1,506	384	-	-	-	-
1988	**31,114**	24,291	2,195	1,554	533	1,974	568	-	-	-	-
1989	**32,332**	24,907	2,892	1,527	692	1,918	396	-	-	-	-
1990	**32,096**	25,832	2,319	1,396	716	1,493	341	-	-	-	-
1991	**29,862**	23,919	1,628	1,071	549	2,214	483	-	-	-	-
1992	**26,747**	21,417	1,582	1,076	423	1,842	407	-	-	-	-
1993	**24,455**	19,321	1,192	1,212	391	1,308	338	785	-	-	-
1994	**24,092**	18,823	1,142	1,238	369	1,408	388	724	-	-	-
1995	**26,612**	20,251	1,490	1,455	337	1,624	261	1,194	-	-	-
1996	**26,909**	20,091	1,768	1,543	591	1,531	227	1,158	-	-	-
1997	**27,713**	20,744	1,655	1,713	344	1,740	192	1,327	-	-	-
1998	**28,100**	20,402	1,765	2,226	430	1,912	295	1,071	-	-	-
1999	**31,231**	22,529	1,797	2,721	552	2,077	309	1,246	-	-	-
2000	**29,960**	21,493	1,986	2,648	530	1,661	362	1,280	-	-	-
2001	**27,017**	19,194	1,773	2,654	474	1,479	287	1,157	-	-	-
2002	**27,040**	18,891	1,850	2,745	454	1,422	333	1,345	-	-	-
2003	**27,329**	19,013	1,922	2,704	448	1,687	263	1,292	-	-	-
2004	**28,126**	18,142	2,161	3,718	514	2,020	249	1,322	-	-	-
2005	**26,982**	16,434	2,106	3,771	617	2,439	267	1,339	9	-	-
2006	**27,705**	16,525	2,162	4,077	918	2,528	211	1,218	66	-	-
2007	**27,852**	16,257	2,661	3,938	704	2,541	215	1,275	260	-	-
2008	**26,009**	15,074	2,457	3,600	751	2,470	209	1,155	293	-	-
2009	**23,763**	13,634	2,215	3,161	755	2,248	178	1,286	286	171	115
2010	**24,802**	13,979	2,325	3,375	794	2,611	181	1,226	311	173	138
2011	**n/a**	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2012	**24,403**	13,206	2,733	3,418	731	2,723	180	1,243	-	151	169
2013	**22,876**	12,352	2,587	3,488	636	2,312	135	1,191	-	135	173
2014	**23,271**	11,967	2,613	3,881	818	2,424	159	1,244	-	142	165
Forecast											
2015	**23,566**	12,366	2,581	3,723	715	2,635	133	1,212	-	-	202
2016	**23,689**	12,112	2,585	3,874	738	2,780	133	1,251	-	-	218
2017	**23,830**	11,885	2,592	4,013	760	2,925	133	1,289	-	-	234
2018	**23,961**	11,675	2,597	4,163	780	3,033	132	1,330	-	-	250
2019	**24,131**	11,506	2,606	4,313	796	3,133	132	1,377	-	-	267
2020	**24,355**	11,384	2,618	4,475	815	3,232	132	1,416	-	-	283
2021	**24,618**	11,282	2,637	4,651	833	3,331	131	1,452	-	-	300
2022	**24,919**	11,205	2,662	4,836	851	3,429	131	1,489	-	-	317
2023	**25,237**	11,144	2,694	5,019	868	3,525	130	1,523	-	-	334
2024	**25,545**	11,076	2,736	5,192	886	3,615	130	1,558	-	-	351
2025	**25,874**	11,025	2,784	5,361	903	3,708	130	1,594	-	-	369
2026	**26,215**	10,975	2,843	5,534	921	3,801	130	1,627	-	-	386
2027	**26,580**	10,929	2,910	5,713	938	3,895	130	1,661	-	-	403
2028	**26,974**	10,898	2,984	5,900	957	3,990	130	1,694	-	-	420
2029	**27,405**	10,883	3,065	6,103	975	4,087	131	1,726	-	-	436
2030	**27,869**	10,872	3,152	6,322	994	4,186	130	1,759	-	-	453
2031	**28,354**	10,875	3,245	6,544	1,013	4,285	130	1,792	-	-	470
2032	**28,858**	10,878	3,344	6,775	1,033	4,386	130	1,826	-	-	486
2033	**29,409**	10,911	3,447	7,015	1,053	4,491	130	1,860	-	-	503
2034	**29,999**	10,962	3,555	7,257	1,073	4,609	130	1,894	-	-	519
2035	**30,626**	11,034	3,665	7,512	1,094	4,727	130	1,929	-	-	536
Average Annual Growth											
2014–35	**1.4%**	**-0.5%**	**1.7%**	**3.6%**	**2.2%**	**3.2%**	**-0.1%**	**2.4%**	**-**	**-**	**5.1%**

Source: FAA Survey and Forecast

Key changes to survey methodology by year:

- 2003: Aircraft operating in commuter operations were excluded.
- 2004: The survey coverage was expanded for turbine airplanes and rotorcraft, accounting for part of the increase in hours.
- 2007: The estimate of Light-Sport Aircraft increased significantly due to mandatory registration.
- 2009: The FAA began publishing data for Special Light-Sport Aircraft separately.
- 2011: Data is unavailable at the time of publication.
- 2012: The general aviation survey results includes "Experimental Light-Sport" data in the "Experimental" category.

2.5 Active U.S. General Aviation and On-Demand FAR Part 135 Average Hours Flown Per Aircraft by Year (1998–2014)

Year	All Aircraft	Airplane			Rotorcraft		Balloons, Dirigibles, Gliders	Experimental	Light-Sport Aircraft	
		Piston	Turboprop	Business Jet	Piston	Turbine			Total	Special
1998	**137**	125	286	367	169	392	53	65	-	-
1999	**145**	133	319	385	217	448	47	61	-	-
2000	**142**	130	353	393	198	398	56	64	-	-
2001	**138**	128	290	341	254	347	50	59	-	-
2002	**128**	117	270	329	193	331	53	61	-	-
2003	**130**	118	250	338	211	383	44	63	-	-
2004	**128**	110	258	400	222	367	42	58	-	-
2005	**120**	98	265	384	203	429	41	57	55	-
2006	**125**	101	268	393	281	429	34	53	52	-
2007	**120**	97	280	379	254	374	36	55	43	-
2008	**114**	93	276	326	215	387	37	50	43	-
2009	**106**	87	245	281	216	347	32	53	44	78
2010	**111**	90	248	294	221	401	32	50	48	84
2011	**n/a**	n/a	n/a	n/a	n/a	n/a	n/a	n/a	-	n/a
2012	**117**	92	265	290	222	403	36	47	-	85
2013	**114**	90	269	300	203	349	32	48	-	84
2014	**114**	86	267	314	260	356	34	48	-	74

Data for 2011 is unavailable at time of publication.

Source: FAA Survey

2.6 Active General Aviation and On-Demand FAR Part 135 Aircraft and Hours Flown (in Thousands) by U.S. State or Territory (2007–2014)

State or Territory	2007		2008		2009		2010		2012		2013		2014		
	Active Aircraft	Hours Flown	Active Aircraft	Hours Flown	Active Aircraft	Hours Flown	Active Aircraft	Hours Flown	Active Aircraft	Hours Flown	Active Aircraft	Hours Flown	Aircraft Population	Active Aircraft	Hours Flown
Alabama	3,719	372	3,549	546	3,145	299	5,095	643	4,763	527	2,825	244	4,847	4,221	535
Alaska	6,111	783	6,076	701	6,017	688	6,113	681	5,703	696	5,526	675	8,182	5,641	772
Arizona	7,636	807	5,767	579	6,896	809	7,531	1,135	6,070	666	5,658	718	7,026	5,301	731
Arkansas	2,575	338	2,291	354	2,661	346	3,028	354	3,053	366	3,065	328	3,512	2,584	311
California	23,813	2,540	25,292	2,651	24,811	2,555	22,830	2,350	21,316	2,309	20,560	2,331	26,365	20,516	2,166
Colorado	5,441	663	6,268	626	4,973	525	5,483	716	5,412	772	5,338	611	7,062	5,592	715
Connecticut	2,296	380	2,228	445	1,868	355	1,566	201	1,657	281	1,342	175	1,676	1,431	182
Delaware	2,494	410	1,830	313	2,261	221	1,934	220	1,885	212	1,350	349	2,197	856	131
D.C.	41	15	29	88	80	4	17	4	415	107	52	13	506	441	151
Florida	16,341	2,198	16,143	2,382	16,804	2,047	16,126	1,839	14,754	1,958	14,450	1,868	18,619	15,028	2,052
Georgia	4,758	568	6,674	709	5,970	805	5,843	618	5,228	566	5,932	571	6,298	4,966	487
Hawaii	531	106	530	93	499	148	741	179	486	203	448	141	492	415	121
Idaho	2,747	319	2,816	234	3,282	300	2,860	204	2,966	301	2,666	322	3,285	2,405	263
Illinois	6,872	723	5,480	423	6,786	655	6,112	574	5,202	444	5,169	530	6,435	4,697	434
Indiana	4,862	358	3,764	294	4,008	412	3,151	255	3,675	266	3,280	359	4,712	3,810	354
Iowa	2,982	298	3,361	294	2,935	281	2,629	232	3,064	371	3,024	236	3,589	2,913	242
Kansas	3,044	442	3,814	397	3,805	366	3,547	344	3,138	543	3,704	378	5,728	4,431	530
Kentucky	2,073	186	1,726	131	1,780	137	2,082	157	1,934	159	1,797	142	2,081	1,600	109
Louisiana	2,857	756	3,136	777	2,970	913	3,512	862	3,264	1,017	3,156	757	3,985	3,480	650
Maine	1,463	128	1,284	112	1,230	81	1,347	86	1,188	107	1,203	80	1,767	1,384	99
Maryland	2,699	309	2,671	248	2,971	176	2,774	235	2,505	274	2,184	245	3,258	2,647	216
Massachusetts	2,738	317	2,417	310	2,539	224	2,426	244	2,663	477	2,279	218	2,724	2,173	225
Michigan	6,443	512	8,668	572	6,068	477	6,112	471	5,663	468	4,999	410	7,334	5,361	445
Minnesota	5,086	552	4,840	453	5,187	413	4,690	415	4,365	383	4,720	437	6,900	4,869	401
Mississippi	1,939	381	1,298	233	2,237	296	2,543	354	2,037	300	2,033	243	2,461	1,693	254
Missouri	4,616	376	3,596	272	4,119	412	3,847	303	3,953	399	3,479	328	4,414	3,309	361
Montana	3,110	349	2,152	239	2,576	188	2,536	164	1,755	158	2,065	211	3,270	2,400	213
Nebraska	2,127	255	2,074	201	2,314	197	2,076	183	2,013	191	2,159	194	2,519	1,873	173
Nevada	3,512	573	3,093	377	2,022	276	2,030	343	2,246	319	2,322	323	3,589	2,782	418
New Hampshire	1,425	107	1,624	150	1,361	123	1,316	148	1,187	103	1,170	103	1,508	1,141	134
New Jersey	3,369	315	4,076	742	3,232	331	2,954	315	2,379	294	2,593	434	3,810	3,198	391
New Mexico	4,221	461	3,519	276	2,663	190	3,411	246	2,562	201	2,493	137	3,393	2,570	206
New York	5,661	600	6,074	549	5,577	463	6,457	787	5,116	478	5,131	477	6,377	4,888	594
North Carolina	5,917	928	5,376	644	6,004	637	5,883	723	5,451	463	5,627	559	6,771	5,281	480
North Dakota	1,236	171	1,276	348	1,101	106	1,366	217	1,376	341	1,412	275	1,751	1,325	241
Ohio	6,189	741	6,200	700	6,329	608	5,823	631	6,319	578	5,117	537	7,529	5,793	716
Oklahoma	4,021	841	4,911	794	4,229	809	4,794	910	3,915	566	4,001	862	5,990	3,743	756
Oregon	6,029	725	4,614	431	5,234	559	5,200	784	4,692	653	4,626	569	6,290	4,611	607
Pennsylvania	5,881	624	7,410	851	6,539	652	6,012	662	5,386	562	5,091	510	8,124	5,842	621
Puerto Rico	348	54	620	78	319	50	397	154	345	36	235	54	376	308	41
Rhode Island	243	43	299	20	234	19	352	36	2,538	193	319	43	361	284	38
South Carolina	3,214	260	2,845	300	2,425	189	2,634	205	1,478	153	2,414	186	3,398	2,801	183
South Dakota	1,143	151	1,554	112	1,843	176	1,024	96	3,557	429	1,080	167	1,898	1,454	130
Tennessee	4,286	524	4,438	559	3,820	315	3,993	362	18,500	2,140	3,718	411	4,360	3,240	372
Texas	20,235	2,450	18,117	2,071	19,416	2,042	17,595	2,039	2,601	433	16,811	2,243	23,906	18,232	2,002
Utah	2,057	386	2,583	443	1,859	262	2,298	325	545	30	1,906	284	2,754	2,420	425
Vermont	431	39	628	35	553	35	603	49	4,451	549	495	22	758	587	40
Virginia	4,642	703	5,605	691	3,961	376	5,178	645	7,249	679	5,184	499	5,916	4,555	484
Washington	7,722	949	7,198	691	6,604	614	7,585	602	855	47	6,612	513	9,541	6,718	480
West Virginia	1,101	82	1,247	95	1,160	97	1,292	80	4,485	352	886	66	1,005	718	73
Wisconsin	5,872	487	3,911	297	5,134	376	5,694	318	1,010	120	5,002	318	6,294	4,753	387
Wyoming	1,287	167	1,493	144	1,299	118	836	88	492	124	1,149	156	1,363	1,036	99
Other US Territories	154	32	182	15	166	10	-	-	174	44	70	15	136	90	32
Grand Total	231,607	27,854	228,663	26,009	223,877	23,763	223,370	24,802	209,034	24,403	199,927	22,876	268,443	204,408	23,271

Columns may not add up due to rounding procedures.
Beginning in 2007, the survey asked the state in which the aircraft was "primarily flown" rather than where the aircraft was "based."

Estimates by state and region may vary from previous years. State of registration is assigned if state primarily flown was not answered or cannot be coded.
Data for 2011 is unavailable at the time of publication.

Source: FAA Survey

2.7 U.S. Experimental Aircraft Fleet and Flight Hours (in Thousands) (1994–2014)

Year	Aircraft Fleet						Hours Flown					
	Amateur-Built	Exhibition	Experimental Light-Sport	Other	Total Experimental	% of GA Fleet	Amateur-Built	Exhibition	Experimental Light-Sport	Other	Total Experimental	% of GA Hours
1994	8,833	637	-	2,674	**12,144**	**7.0%**	391	44	-	289	**724**	**3.0%**
1995	9,328	2,245	-	3,603	**15,176**	**8.1%**	482	260	-	452	**1194**	**4.5%**
1996	11,566	2,094	-	2,965	**16,625**	**8.7%**	524	192	-	442	**1158**	**4.3%**
1997	10,261	1,798	-	2,620	**14,679**	**7.6%**	698	246	-	382	**1,326**	**4.8%**
1998	13,189	1,630	-	1,684	**16,503**	**8.1%**	729	73	-	269	**1,071**	**3.8%**
1999	16,858	1,999	-	1,671	**20,528**	**9.4%**	883	122	-	242	**1,247**	**4.0%**
2000	16,739	1,973	-	1,694	**20,406**	**9.4%**	887	113	-	279	**1,279**	**4.3%**
2001	16,736	2,052	-	1,633	**20,421**	**9.7%**	794	102	-	261	**1,157**	**4.3%**
2002	18,168	2,190	-	1,578	**21,936**	**10.4%**	976	127	-	242	**1,345**	**5.0%**
2003	17,028	2,031	-	1,491	**20,550**	**9.8%**	963	103	-	226	**1,292**	**4.7%**
2004	19,165	2,070	-	1,565	**22,800**	**10.4%**	990	116	-	216	**1,322**	**4.7%**
2005	19,817	2,120	-	1,691	**23,628**	**10.5%**	987	113	-	239	**1,339**	**5.0%**
2006	19,316	2,103	-	1,629	**23,048**	**10.4%**	899	103	-	216	**1,218**	**4.4%**
2007	19,538	2,101	-	1,589	**23,228**	**10.0%**	896	102	-	277	**1,274**	**4.6%**
2008	19,767	2,096	-	1,501	**23,364**	**10.2%**	872	92	-	192	**1,155**	**4.4%**
2009	20,794	2,063	5,077	1,562	**29,496**	**13.2%**	983	88	171	215	**1,457**	**6.1%**
2010	21,270	2,029	4,878	1,485	**29,662**	**13.3%**	911	98	173	217	**1,399**	**5.6%**
2011	n/a	n/a	n/a	n/a	**n/a**	**n/a**	n/a	n/a	n/a	n/a	**n/a**	**n/a**
2012	18,843	1,923	4,631	1,317	**26,715**	**12.8%**	847	88	151	157	**1,243**	**5.1%**
2013	17,503	1,908	4,157	1,350	**24,918**	**12.5%**	785	78	135	193	**1,191**	**5.2%**
2014	18,873	1,893	4,204	1,221	**26,191**	**12.8%**	834	79	142	189	**1,244**	**5.3%**

Beginning in 1994, experimental includes aircraft with an experimental airworthiness certificate. These include research and development, amateur-built, exhibition, racing, crew training, and market survey aircraft and aircraft used to show compliance with the Federal Aviation Regulations.

Source: FAA Survey

2.8 **Total Fuel Consumed and Average Fuel Consumption Rate by Aircraft Type (2014)**

Fuel Type	Fixed-Wing			Rotorcraft		Other Aircraft	Experimental	Special Light-Sport	Total All Aircraft
	Piston	Turboprop	Turbojet	Piston	Turbine				
Jet Fuel									
Avg. Rate (GPH)	39.6	79.0	292.5	23.9	54.7	-	89.0	-	**166.0**
Estimated Fuel Use (Thousand Gal.)	6,195.2	175,675.3	1,132,953.5	210.8	132,278.0	-	6,848.0	-	**1,454,161.2**
% Standard Error	10.8%	1.4%	1.1%	12.2%	1.1%	-	9.6%	-	**1.0%**
100 Low-Lead									
Avg. Rate (GPH)	13.5	59.9	19.3	13.4	18.9	2.2	21.3	5.3	**15.3**
Estimated Fuel Use (Thousand Gal.)	147,362.5	22,999.8	26.2	10,676.3	63.8	23.1	17,749.9	357.6	**199,259.3**
% Standard Error	1.7%	2.9%	30.9%	2.8%	31.1%	14.7%	11.0%	3.9%	**2.0%**
100 Octane									
Avg. Rate (GPH)	13.6	18.0	-	14.3	-	4.7	8.7	5.4	**15.2**
Estimated Fuel Use (Thousand Gal.)	5,255.6	53.4	-	179.4	-	1.2	188.4	13.3	**6,549.9**
% Standard Error	7.7%	22.0%	-	26.5%	-	16.6%	10.7%	12.0%	**20.1%**
Automotive Gasoline									
Avg. Rate (GPH)	8.9	-	-	-	-	4.1	5.4	5.0	**6.9**
Estimated Fuel Use (Thousand Gal.)	2,812.2	-	-	-	-	7.8	1,646.4	470.0	**4,954.5**
% Standard Error	12.3%	-	-	-	-	18.9%	3.6%	4.7%	**4.7%**
Other Fuel									
Avg. Rate (GPH)	22.9	61.8	440.2	-	30.6	19.8	7.0	4.3	**26.4**
Estimated Fuel Use (Thousand Gal.)	3,795.2	163.9	1,219.1	-	20.1	1,603.8	45.0	1.2	**6,848.5**
% Standard Error	10.5%	17.7%	30.1%	-	40.6%	8.6%	15.0%	41.3%	**19.8%**
Total Fuel Use									
Avg. Rate (GPH)	13.8	76.1	292.5	13.5	54.6	17.5	21.3	5.1	**72.0**
Estimated Fuel Use (Thousand Gal.)	165,420.7	198,895.5	1,135,060.3	11,074.6	132,363.4	1,635.9	26,477.8	842.1	**1,671,770.3**
% Standard Error	1.7%	1.3%	1.1%	2.8%	1.1%	8.0%	8.8%	3.1%	**2.1%**

Some data points are suppressed or contain no reports of a type of aircraft using that fuel.

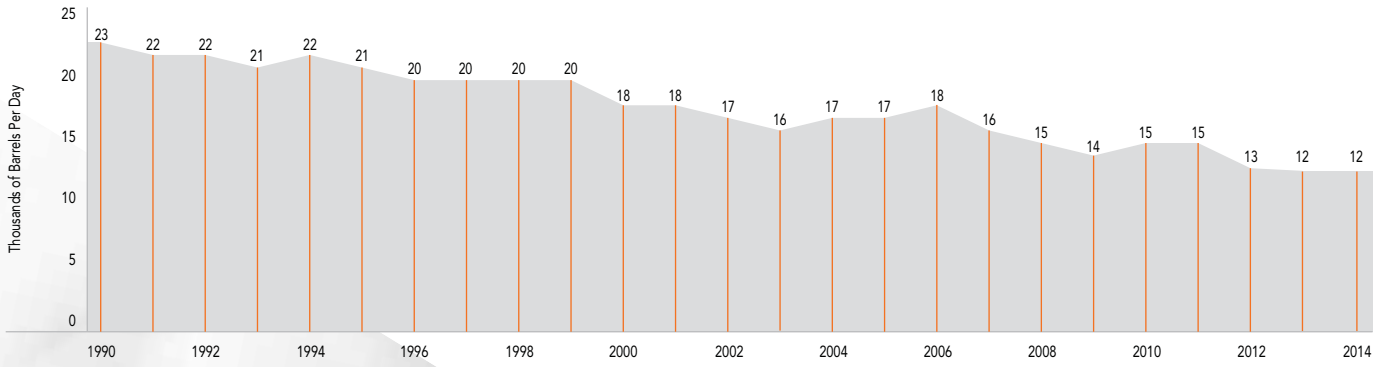
Source: FAA Survey

2.9 **U.S. Refinery and Blender Net Production of Aviation Gasoline (1990–2014) (in Thousand Barrels Per Day)**

Year	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9
1990	23	22	22	21	22	21	20	20	20	20
2000	18	18	17	16	17	17	18	16	15	14
2010	15	15	13	12	12	-	-	-	-	-

Source: U.S. Energy Information Administration

FIGURE 2.1 **Refinery and Blender Net Production of Aviation Gasoline (1990–2014)**



Source: U.S. Energy Information Administration

2.10 U.S. General Aviation Fuel Consumption (2000–2014) and Forecast (2015–2035) (in Millions of Gallons)

Year	Airplane				Rotorcraft		Experimental and Other Aircraft	Light-Sport	Total Fuel Consumed		
	Piston		Turbine		Piston	Turbine			Avgas	Jet Fuel	Total
	Single-Engine	Multi-Engine	Turboprop	Business Jet							
2000	200.8	108.4	176.3	736.7	8.4	59.0	15.2	-	332.8	972.0	**1,304.8**
2001	180.4	76.4	149.1	726.7	7.2	42.6	15.3	-	279.2	918.3	**1,197.6**
2002	177.9	74.2	152.3	745.5	6.8	40.5	17.8	-	276.7	938.3	**1,215.0**
2003	181.8	66.7	154.5	729.0	6.8	48.8	17.1	-	272.4	932.3	**1,204.7**
2004	167.5	80.1	167.0	1,004.9	7.9	59.0	17.5	-	272.9	1,230.9	**1,503.8**
2005	173.1	89.7	196.1	1,181.3	14.6	149.2	17.7	-	295.0	1,526.7	**1,821.7**
2006	164.9	79.9	190.1	1,303.9	16.7	148.6	21.6	0.3	283.4	1,642.6	**1,926.0**
2007	157.6	83.0	205.2	1,148.0	9.3	132.4	22.6	1.2	273.6	1,485.6	**1,759.2**
2008	143.0	69.5	230.4	1,313.2	10.7	162.1	23.3	1.5	248.1	1,705.7	**1,953.8**
2009	132.3	57.1	208.7	1,104.6	10.7	133.6	25.8	1.4	227.4	1,447.0	**1,674.4**
2010	133.1	53.9	187.1	1,122.9	10.7	124.8	21.6	1.5	220.7	1,434.8	**1,655.6**
2011E	129.3	52.9	188.0	1,181.8	10.5	120.8	21.3	1.5	215.5	1,490.7	**1,706.2**
2012	126.6	51.8	190.7	1,232.2	10.7	119.5	21.7	1.5	212.3	1,542.4	**1,754.7**
2013	117.2	53.9	188.6	945.0	8.8	126.0	16.5	0.9	197.3	1,259.6	**1,456.9**
2014	116.1	53.3	187.3	1,049.2	9.5	133.6	16.8	1.0	196.6	1,370.0	**1,566.6**
Forecast											
2015	117.5	52.7	185.3	1,080.0	9.9	142.2	17.2	1.0	198.3	1,407.5	**1,605.8**
2016	115.0	51.9	184.7	1,118.0	10.2	148.5	17.7	1.1	195.9	1,451.2	**1,647.0**
2017	112.5	51.4	184.3	1,152.6	10.5	155.5	18.2	1.2	193.8	1,492.3	**1,686.1**
2018	110.4	51.0	183.7	1,189.5	10.7	160.4	18.7	1.3	192.1	1,533.5	**1,725.6**
2019	108.7	50.5	184.3	1,226.3	11.0	165.7	19.3	1.3	190.8	1,576.3	**1,767.2**
2020	107.2	50.2	184.3	1,266.0	11.2	170.9	19.8	1.4	189.9	1,621.2	**1,811.1**
2021	106.3	49.6	184.6	1,302.5	11.4	174.4	20.1	1.5	188.9	1,661.6	**1,850.5**
2022	105.3	49.3	185.5	1,340.8	11.7	178.6	20.5	1.6	188.4	1,705.0	**1,893.4**
2023	104.7	49.1	186.8	1,377.6	11.9	182.7	21.0	1.7	188.4	1,747.1	**1,935.4**
2024	104.1	48.8	189.7	1,410.9	12.1	186.5	21.4	1.8	188.2	1,787.1	**1,975.3**
2025	103.4	48.4	192.1	1,442.3	12.4	191.2	21.8	1.8	187.9	1,825.6	**2,013.5**
2026	102.7	48.2	194.1	1,473.9	12.6	194.1	22.0	1.9	187.5	1,862.1	**2,049.5**
2027	102.0	48.3	198.2	1,506.3	12.8	197.9	22.5	2.0	187.5	1,902.4	**2,089.9**
2028	101.5	48.0	203.0	1,540.3	13.0	201.7	22.9	2.1	187.5	1,945.0	**2,132.4**
2029	101.1	48.1	207.4	1,577.2	13.3	206.6	23.3	2.2	187.9	1,991.3	**2,179.2**
2030	100.6	48.3	212.7	1,617.4	13.6	209.5	23.7	2.2	188.4	2,039.6	**2,228.0**
2031	100.2	48.6	218.3	1,657.6	13.8	214.4	24.1	2.3	189.1	2,090.3	**2,279.4**
2032	99.8	49.0	224.3	1,698.9	14.1	219.5	24.5	2.4	189.9	2,142.7	**2,332.5**
2033	99.6	49.5	230.0	1,741.6	14.4	224.7	25.0	2.5	190.9	2,196.3	**2,387.2**
2034	99.6	50.0	236.1	1,783.4	14.6	230.7	25.4	2.6	192.2	2,250.1	**2,442.3**
2035	99.7	50.6	242.2	1,827.7	14.9	236.6	25.8	2.7	193.8	2,306.4	**2,500.2**
Average Annual Growth											
2014–35	**-0.7%**	**-0.2%**	**1.2%**	**2.7%**	**2.2%**	**2.8%**	**2.1%**	**5.0%**	**-0.1%**	**2.5%**	**2.3%**

E = Estimated

Source: FAA Survey and Forecast

2.11 **Average Age of Registered U.S. General Aviation Fleet (2006–2014)**

Aircraft Type	Engine Type	Seats	Average Age in 2006 in Years	Average Age in 2007 in Years	Average Age in 2008 in Years	Average Age in 2009 in Years	Average Age in 2010 in Years	Average Age in 2011 in Years	Average Age in 2012 in Years	Average Age in 2013 in Years	Average Age in 2014 in Years
Single-Engine	Piston	1–3	38	38	48.1	-	-	-	-	-	-
		4	36	36	38.2	-	-	-	-	-	-
		5–7	31	32	33.5	-	-	-	-	-	-
		8+	44	43	49.3	-	-	-	-	-	-
		All	-	-	-	42.2	46.3	n/a	43.4	40.7	44.8
	Turboprop	All	10	14	13.6	16.1	15.2	n/a	14.9	12.5	13.5
	Jet	All	34	35	44.4	44.0	44.1	n/a	n/a	n/a	n/a
	Helicopter – Piston	All	-	-	-	-	n/a	n/a	20.8	17.1	21.4
	Helicopter – Turbine	All	-	-	-	-	n/a	n/a	22.9	22.3	22.1
Multi-Engine	Piston	1–3	32	33	48.9	-	-	-	-	-	-
		4	35	35	36.0	-	-	-	-	-	-
		5–7	36	39	39.3	-	-	-	-	-	-
		8+	39	40	41.6	-	-	-	-	-	-
	All	All	-	-	-	41.2	39.0	n/a	40.2	38.5	41.9
	Turboprop	All	26	27	28.8	28.0	27.0	n/a	26.1	25.2	27.6
	Jet	All	16	16	16.2	17.0	16.2	n/a	15.3	14.7	15.8
	Helicopter – Turbine	All	-	-	-	-	-	-	17.5	14.7	17.6
All Aircraft			**35**	**35**	**39.3**	**39.5**	**37.3**	**n/a**	**35.1**	**33.2**	**36.7**

Source: GAMA

2.12 U.S. General Aviation Operations (in Thousands) at FAA and Contract Towers (1992–2015)

Year	General Aviation Operations at Towers						Grand Total
	FAA Control Towers			Contract Towers			
	Total	Itinerant & Overflight	Local	Total	Itinerant & Overflight	Local	
1992	**36,945**	21,281	15,664	**1,409**	767	642	**38,355**
1993	**35,228**	20,377	14,851	**1,373**	760	613	**36,601**
1994	**34,092**	20,208	14,484	**1,561**	855	706	**36,254**
1995	**32,265**	18,886	13,379	**3,661**	1,974	1,687	**35,927**
1996	**29,250**	17,575	11,675	**6,049**	3,249	2,801	**35,298**
1997	**28,232**	17,097	11,135	**8,601**	4,572	4,029	**36,833**
1998	**28,522**	17,157	11,365	**10,118**	5,240	4,877	**38,046**
1999	**29,110**	17,422	11,688	**10,890**	5,597	5,292	**40,000**
2000	**27,002**	16,286	10,717	**12,876**	6,558	6,318	**39,879**
2001	**24,784**	14,949	9,835	**12,843**	6,484	6,359	**37,627**
2002	**24,092**	14,553	9,539	**13,562**	6,898	6,634	**37,653**
2003	**22,598**	13,577	9,021	**12,926**	6,654	6,272	**35,524**
2004	**21,762**	13,190	8,572	**13,205**	6,817	6,388	**34,968**
2005	**20,705**	12,430	8,275	**13,456**	6,885	6,571	**34,161**
2006	**19,728**	11,897	7,830	**13,392**	6,844	6,549	**33,120**
2007	**19,367**	11,616	7,751	**13,768**	6,961	6,807	**33,135**
2008	**18,336**	10,828	7,509	**12,953**	6,540	6,413	**31,289**
2009	**17,429**	10,770	6,659	**12,156**	6,585	5,571	**29,585**
2010	**16,741**	10,430	6,310	**11,837**	6,517	5,319	**28,577**
2011	**16,324**	10,206	6,118	**11,737**	6,374	5,363	**28,061**
2012	**16,265**	10,111	6,154	**11,878**	6,479	5,399	**28,143**
2013	**16,027**	9,857	6,170	**11,998**	6,438	5,560	**28,025**
2014	**15,791**	9,707	6,084	**11,951**	6,356	5,595	**27,742**
2015E	**14,484**	8,801	5,683	**11,208**	6,000	5,208	**25,692**

E = Estimated
Location operations at FAA Control Towers captures all civil local operations.
Facilities includes Control Towers, TRACONs, CERAPs and RAPCONs.
Traffic Count for GA Operation Data are provided by OPSNET.
Source: FAA Air Traffic Activity

2.13 Summary of U.S. General Aviation Operations and Contacts (in Thousands) at FAA Facilities (1999–2015)

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014E	2015F
GA IFR Aircraft Handled at FAA Air Route Traffic Control Centers	8,807.7	8,744.4	8,024.0	8,180.7	7,999.8	8,350.4	8,367.7	8,197.0	8,294.3	7,670.7	6,331.6	6,550.3	6,557.3	6,472.1	6,439.1	6,741.0	6,851.0
GA Instrument Operations at FAA & Contract Facilities	20,897.8	21,221.7	19,705.5	19,655.8	18,629.8	18,619.5	17,985.9	-	-	-	-	-	-	-	-	-	-
GA Total TRACON Operations	-	20,799.2	19,274.9	19,212.5	18,094.2	18,006.8	17,388.9	17,005.3	16,747.4	15,763.0	14,151.1	13,863.6	13,503.1	13,423.6	13,047.7	13,017.6	12,939.6
Total Aircraft Contacts at FSS	2,524.0	2,438.0	2,196.0	2,170.0	2,050.0	1,976.0	-	-	-	-	-	-	-	-	-	-	-

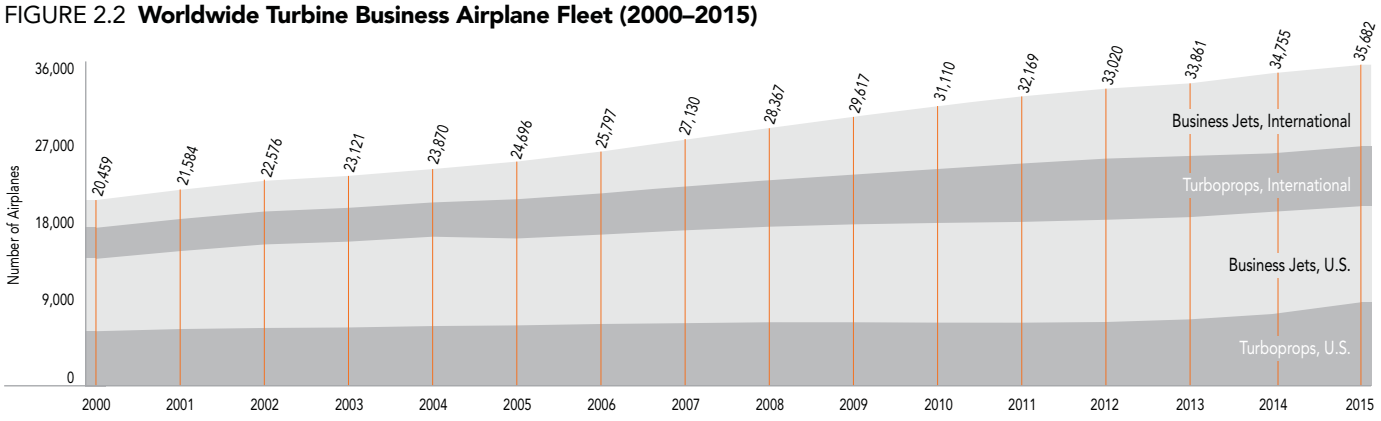
E = Estimated. F = Forecast.
Facilities include Control Towers, TRACONs, CERAPs, and RAPCONs.
Traffic Count for GA Operation Data provided by ATADS.
FAA suspended tracking of IFR operations at Contract Facilities in 2005.
GA Total TRACON Operations were titled "GA Instrument Operations at Airports with FAA Traffic Control Facilities" in previous publications.
FAA suspended tracking of Flight Service Station (FSS) contacts in 2004.
Source: FAA Air Traffic Activity

2.14 Canada—Registered Aircraft by Type and Weight Group (1983–2015)

Year	Number of Registered Aircraft by Type									By Weight Group		Total Aircraft
	Aeroplanes	Ultralights	Amateur-Builts	Helicopters	Gliders	Balloons	Gyroplanes	Airships	Ornithopters	≤ 12,500 lbs	12,500 > lbs	
1983	22,354	1,282	n/a	1,410	560	177	116	n/a	n/a	n/a	n/a	**25,899**
1984	22,330	1,971	n/a	1,326	572	197	118	n/a	n/a	n/a	n/a	**26,514**
1985	22,231	2,376	n/a	1,276	582	219	117	n/a	n/a	n/a	n/a	**26,801**
1986	22,105	2,706	n/a	1,264	589	247	116	n/a	n/a	n/a	n/a	**27,027**
1987	22,270	2,946	n/a	1,299	602	279	121	n/a	n/a	n/a	n/a	**27,517**
1988	22,469	3,105	n/a	1,338	613	308	122	n/a	n/a	n/a	n/a	**27,955**
1989	22,463	3,212	n/a	1,366	614	339	127	n/a	n/a	n/a	n/a	**28,121**
1990	22,278	3,363	n/a	1,416	609	361	128	n/a	n/a	27,173	982	**28,155**
1991	21,973	3,477	n/a	1,433	601	384	135	n/a	n/a	23,553	981	**28,003**
1992	21,795	3,607	n/a	1,502	602	405	155	n/a	n/a	27,070	996	**28,066**
1993	21,452	3,744	n/a	1,533	597	424	162	n/a	n/a	26,977	935	**27,912**
1994	21,212	3,840	n/a	1,582	601	444	169	n/a	n/a	26,885	963	**27,848**
1995	21,169	3,956	n/a	1,605	601	440	166	n/a	n/a	26,914	1,023	**27,937**
1996	21,089	4,070	n/a	1,643	592	440	168	n/a	n/a	26,919	1,084	**28,002**
1997	20,985	4,208	n/a	1,655	587	450	169	n/a	n/a	26,862	1,192	**28,054**
1998	20,830	4,305	2,457	1,676	592	440	174	n/a	n/a	26,809	1,208	**28,017**
1999	20,768	4,346	2,540	1,711	596	442	181	2	1	26,783	1,264	**28,047**
2000	25,256	4,467	2,621	1,753	600	444	186	2	1	26,922	1,320	**28,242**
2001	25,435	4,584	2,709	1,798	613	453	190	3	1	27,171	1,322	**28,493**
2002	25,650	4,746	2,778	1,831	617	453	189	3	1	27,374	1,370	**28,744**
2003	25,902	4,922	2,895	1,894	674	450	188	3	1	27,752	1,360	**29,112**
2004	26,335	5,123	2,996	1,940	686	459	189	4	1	28,166	1,448	**29,614**
2005	26,870	5,339	3,124	2,019	683	475	192	4	1	28,745	1,499	**30,244**
2006	27,512	5,568	3,255	2,145	687	478	191	4	1	29,422	1,596	**31,018**
2007	28,195	5,745	3,380	2,317	695	481	192	5	1	30,223	1,663	**31,886**
2008	29,043	5,985	3,514	2,504	703	486	191	5	1	31,154	1,779	**32,933**
2009	29,567	6,184	3,639	2,576	715	479	190	5	1	31,709	1,824	**33,533**
2010	30,118	6,396	3,748	2,658	713	486	194	5	1	32,330	1,845	**34,175**
2011	30,805	6,585	3,885	2,728	720	490	198	5	1	32,986	1,961	**34,947**
2012	31,341	6,803	3,984	2,776	722	500	195	5	1	33,563	1,977	**35,540**
2013	31,780	6,973	4,074	2,849	726	511	206	5	1	34,050	2,028	**36,078**
2014	32,045	7,125	4,141	2,871	726	517	214	1	1	34,311	2,064	**36,375**
2015	32,130	7,246	4,185	2,853	725	517	224	0	1	34,369	2,081	**36,450**

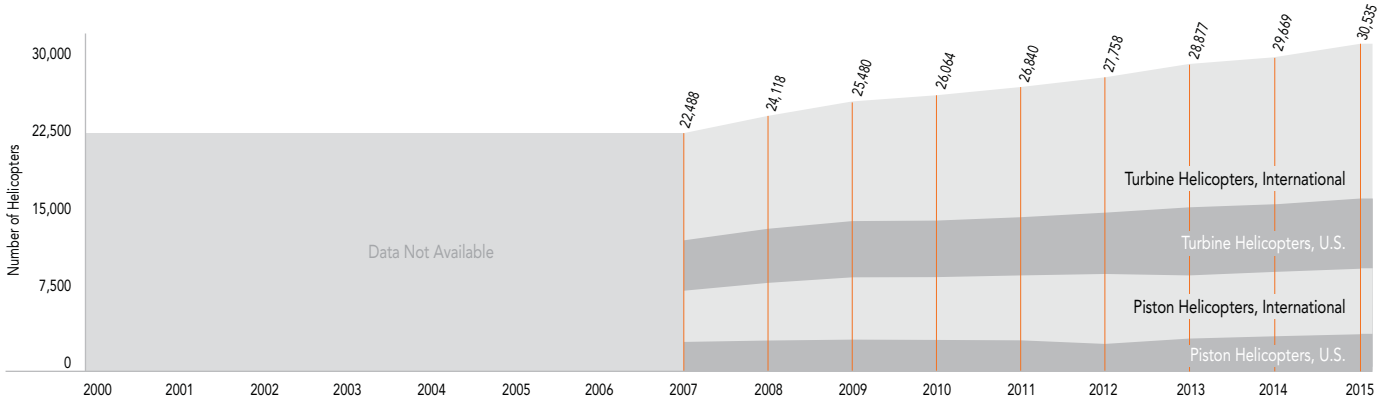
Source: Transport Canada and Canadian Civil Aircraft Registry, www.tc.gc.ca

FIGURE 2.2 **Worldwide Turbine Business Airplane Fleet (2000–2015)**



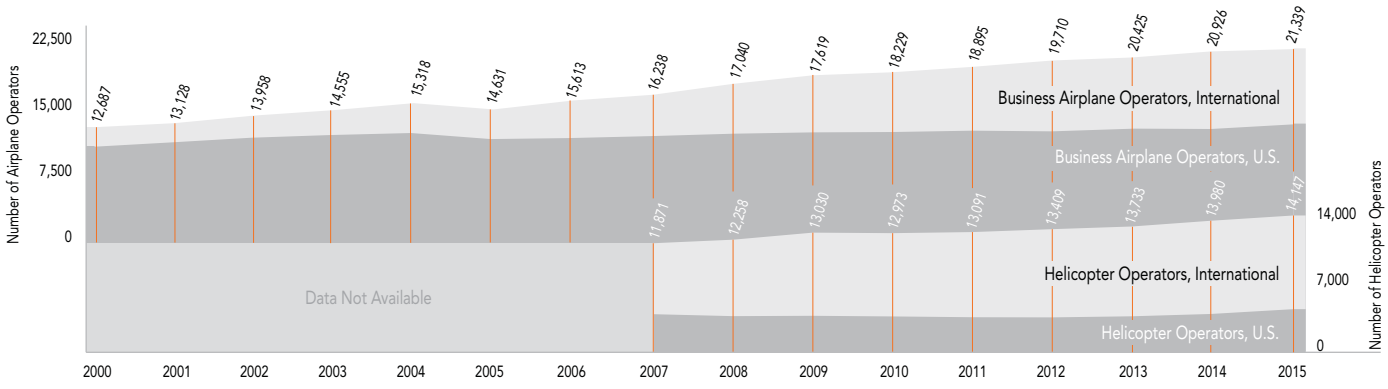
Source: JETNET LLC; www.JETNET.com

FIGURE 2.3 **Worldwide Turbine and Piston Helicopter Fleet (2007–2015)**



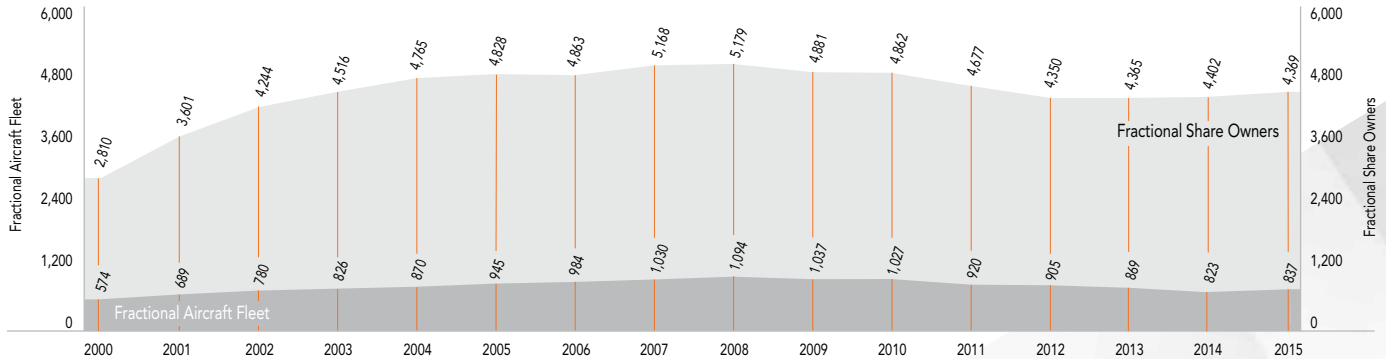
Source: JETNET LLC; www.JETNET.com

FIGURE 2.4 **Worldwide Business Aircraft Operators (2000–2015)**



Source: JETNET LLC; www.JETNET.com

FIGURE 2.5 **Fractional Aircraft and Share Owners (2000–2015)**



The fractional owner and fleet information for 2007 and later also includes helicopters.

Source: JETNET LLC; www.JETNET.com

CHAPTER 3

European Fleet Data

3.1 Austria—Number of Aircraft by Type (2011–2015)

Year	Aircraft Type								Total Aircraft
	Fixed-wing Aeroplanes				Rotorcraft				
	1,999 kg and Below	2,000 kg–5,700 kg	Above 5,700 kg	Motor Gliders	Single-Engine	Multi-Engine	Gyroplanes	Federal Aircraft	
2011	723	110	323	186	99	57	5	17	**1,520**
2012	706	102	331	184	95	51	5	17	**1,491**
2013	712	97	326	181	96	52	8	17	**1,489**
2014	710	90	308	179	97	53	8	17	**1,462**
2015	710	95	292	176	100	54	7	17	**1,451**

Source: Austrocontrol (österreichisches Luftfahrzeugregister), www.austrocontrol.at

3.2 Belgium—Number of Aircraft by Type (2014)

Year	Aircraft Type						Total Aircraft
	Fixed-wing Aeroplanes	Rotorcraft	Balloons and Airships	Homebuilt	Microlights	Gliders and Sailplanes	
2014	999	203	510	56	265	408	**2,441**

Source: Belgian Civil Aviation Authority (SPF Mobilité et Transport), www.mobilit.belgium.be

3.3 Bulgaria—Number of Aircraft by Type (2015)

Year	Aircraft Type							Total Aircraft
	Fixed-wing Aeroplanes	Rotorcraft	Ultralights	Balloons	Gliders	Motor Gliders	Autogyros	
2015	561	126	69	99	355	112	18	**1,340**

Source: Bulgarian Civil Aviation Administration (Гражданска въздухоплавателна администрация) http://www.caa.bg/

3.4 Croatia—Number of Aircraft by Type (2015)

Year	Aircraft Type										Total Aircraft
	Fixed-wing Aeroplanes		Rotorcraft		Ultralights	Balloons	Amphibian	Gliders	Amateur	Autogyros	
	5,700 kg and Below	Above 5,700 kg	Single-Engine	Multi-Engine							
2015	153	1	12	4	112	20	2	60	12	2	**378**

Source: Croatia Civil Aviation Authority http://www.ccaa.hr/

3.5 Cyprus—Number of Aircraft by Type (2014–2015)

Year	Aircraft Type									Total Aircraft
	Fixed-wing Aeroplanes			Rotorcraft	Microlights	Gliders	Amphibian	Seaplanes	Powered Parachute	
	5,700 kg and Below		Above 5,700 kg							
	Single-Engine	Multi-Engine								
2014	47	9	1	2	18	1	1	1	1	**81**
2015	47	10	1	1	16	1	1	1	1	**79**

Source: Department of Civil Aviation Cyprus (Κυπριακή Δημοκρατία, Υπουργείο Συγκοινωνιών και Εργών), www.mcw.gov.cy

3.6 Czech Republic—Number of Aircraft by Type (2008–2015)

Year	Aircraft Type								Total Aircraft
	Fixed-wing Aeroplanes		Rotorcraft	Motor Gliders	Gliders	Balloons	Airships	Microlights	
	5,700 kg and Below	Above 5,700 kg							
2008	788	102	70	89	702	156	2	n/a	**1,121**
2009	870	96	82	95	725	165	2	n/a	**1,165**
2010	867	94	106	101	762	181	2	n/a	**1,246**
2011	915	84	118	101	838	191	2	n/a	**1,334**
2012	943	104	127	106	908	204	2	n/a	**1,451**
2013	940	86	134	109	956	209	2	n/a	**1,496**
2014	977	91	142	115	976	218	2	5,416	**6,960**
2015	964	85	153	130	987	233	2	5,649	**7,239**

Source: Czech Civil Aviation Authority (Urad Pro Civilni Letectvi) http://www.caa.cz/

3.7 Denmark—Number of Aircraft by Type (2014–2015)

Year	Aircraft Type								Total Aircraft
	Fixed-wing Aeroplanes			Rotorcraft		Balloons	Motor Gliders	Gliders	
	5,700 kg and Below	5,700 kg–15,000 kg	Above 15,000 kg	3,175 kg and Below	Above 3,175 kg				
2014	715	34	49	100	28	70	137	313	**1,446**
2015	903	34	45	102	27	78	160	509	**1,858**

Source: Danish Transport Authority (Trafikstyrelsen), www.trafikstyrelsen.dk

3.8 Estonia—Number of Aircraft by Type (2014–2015)

Year	Aircraft Type							Total Aircraft
	Fixed-wing Aeroplanes		Rotorcraft		Gyroplanes	Balloons	Gliders and Powered Sailplanes	
	5,700 kg and Below	Above 5,700 kg	Single-Engine	Multi-Engine				
2014	71	26	8	3	2	8	39	**157**
2015	67	27	9	3	2	8	43	**159**

Source: Republic of Estonia Civil Aviation Administration (Lennuamet), www.ecaa.ee

3.9 Finland—Number of Aircraft by Type (2014–2015)

Year	Aircraft Type										Total Aircraft
	Fixed-wing Aeroplanes				Rotorcraft		Gliders and Powered Gliders	Balloons	Ultralights	Autogyros	
	Annex II	5,700 kg and Below		Above 5,700 kg	Single-Engine	Multi-Engine					
		Single-Engine	Multi-Engine								
2014	163	373	30	24	67	19	366	52	318	19	**1,431**
2015	179	369	29	9	63	16	359	52	324	20	**1,420**

Source: Finnish Transport Safety Agency (Liikenteen turvallisuusvirasto), www.trafi.fi

3.10 France—Number of Aircraft by Type (2005–2011)

Year	Activity at Aeroclubs														Total Aircraft
	Fixed-wing Aeroplanes			Gliders			Rotorcraft			Hand Gliders		Ultralights			
	Number of Aircraft	Hours Flown	Active Pilots	Number of Aircraft	Hours Flown	Active Pilots	Number of Aircraft	Hours Flown	Active Pilots	Number of Vehicles	Number of Pilots	Number of Aircraft	Hours Flown	Active Pilots	
2005	2,109	645,138	44,045	1,989	260,578	10,374	30	n/a	403	18,200	17,985	6,866	304,374	10,532	**29,164**
2006	2,103	619,323	43,266	1,956	240,739	10,311	30	3,119	403	18,500	18,296	6,993	371,838	11,262	**29,552**
2007	2,054	597,238	42,730	2,050	226,995	10,219	28	2,640	316	18,700	18,147	8,049	376,710	12,496	**30,853**
2008	2,057	568,704	41,266	1,853	228,000	9,951	34	4,120	249	18,900	18,354	8,214	378,032	13,108	**31,024**
2009	2,029	582,054	40,187	1,958	255,576	9,633	n/a	n/a	223	19,200	19,371	8,534	386,084	13,398	**31,721**
2010	1,980	558,730	40,113	2,353	247,381	9,668	17	3,320	193	19,700	19,949	8,713	376,477	13,534	**32,746**
2011	1,862	583,074	40,898	1,972	231,628	9,638	18	4,915	198	20,100	20,674	8,476	402,712	14,194	**32,410**

Active pilots includes student pilots.
Gliders include motor gliders, towed gliders, and gliders launched by winch.

Source: French DGAC (Observatoire de l'Aviation civile), www.developpement-durable.gouv.fr

3.11 Germany—Number of Aircraft by Type (2005–2015)

Year	Aircraft Type												
	Fixed-wing Aeroplanes							Rotorcraft	Motor Gliders	Airships	Balloons	Gliders	Total Aircraft
	Single-Engine		Multi-Engine		5,701 kg–14,000 kg	14,001 kg–20,000 kg	Above 20,000 kg						
	2,000 kg and Below	2,000 kg–5,700 kg	2,000 kg and Below	2,000 kg–5,700 kg									
2005	6,682	93	212	417	176	54	651	721	2,664	4	1,305	7,728	**20,707**
2006	6,704	102	224	417	181	56	663	729	2,766	4	1,278	7,741	**20,865**
2007	6,705	120	230	417	200	51	702	731	2,824	4	1,264	7,769	**21,017**
2008	6,738	126	232	436	224	45	734	739	2,948	4	1,286	7,815	**21,327**
2009	6,752	144	241	445	231	43	757	780	3,022	3	1,261	7,891	**21,570**
2010	6,801	153	242	444	228	40	772	811	3,081	4	1,260	7,867	**21,703**
2011	6,744	155	243	428	236	38	770	773	3,122	3	1,257	7,834	**21,603**
2012	6,757	150	239	414	217	30	767	774	3,185	5	1,215	7,793	**21,546**
2013	6,733	155	240	403	199	34	758	769	3,263	3	1,201	7,704	**21,462**
2014	6,689	149	228	393	207	33	751	745	3,357	3	1,183	7,657	**21,395**
2015	6,596	147	229	371	191	34	751	757	3,403	3	1,164	7,567	**21,213**

Source: German Civil Aviation Authority (Luftfahrt-Bundesamtes / Statistiken), www.lba.de

3.12 Iceland—Number of Aircraft by Type (2015)

Year	Aircraft Type						Total Aircraft
	Fixed-wing Aeroplanes		Rotorcraft		Amphibian	Gliders	
	5,700 kg and Below	Above 5,700 kg	Single-Engine	Multi-Engine			
2015	270	-	7	3	2	20	**302**

Source: Iceland Transport Authority (Samgongustofa) http://www.icetra.is/aviation/aip-iceland/

3.13 Ireland—Number of Aircraft by Type (2011–2015)

Year	Aircraft Type																Total Aircraft
	Fixed-wing Aeroplanes						Rotorcraft		Micro-lights	Gliders	Balloons	Home-built	Gyro-copters	Pow-ered Sail-planes	Am-phibian	Sail-planes	
	Single-Engine		Multi-Engine		5,701 kg–15,000 kg	Above 15,000 kg	Single-Engine	Multi-Engine									
	2,000 kg and Below	2,000 kg–5,700 kg	2,000 kg and Below	2,000 kg–5,700 kg													
2011	228	2	11	12	7	14	45	20	150	22	12	36	18	n/a	1	n/a	**578**
2012	181	5	7	6	5	14	31	16	128	n/a	10	39	11	3	1	n/a	**457**
2013	180	5	8	6	3	17	30	19	133	n/a	10	45	13	4	1	21	**495**
2014	179	3	6	8	1	8	25	14	132	n/a	10	56	14	5	1	20	**482**
2015	178	3	6	8	1	6	21	13	141	n/a	10	59	13	6	1	18	**484**

Source: Irish Aviation Authority, www.iaa.ie

3.14 Isle of Man—Number of Aircraft by Type (2014–2015)

Year	Aircraft Type					Total Aircraft
	Fixed-wing Aeroplanes			Rotorcraft		
	5,700 kg and Below	5,700 kg–15,000 kg	Above 15,000 kg	Single-Engine	Multi-Engine	
2014	76	65	230	2	28	**401**
2015	71	68	244	2	26	**411**

Source: Isle of Man Aircraft Registery, www.gov.im

3.15 Latvia—Number of Aircraft by Type (2014–2015)

Year	Aircraft Type														Total Aircraft
	Fixed-wing Aeroplanes								Rotorcraft			Powered Sailplanes	Sailplanes	Gyro-planes	
	5,700 kg and Below						Above 5,700 kg		Piston	Turbine					
	Piston		Turboprop		Turbojet		Turbo-prop	Turbojet		Single-Engine	Multi-Engine				
	Single-Engine	Multi-Engine	Single-Engine	Multi-Engine	Single-Engine	Multi-Engine									
2014	122	6	2	2	8	2	1	3	10	5	12	25	21	2	**221**
2015	130	6	10	1	2	2	-	1	9	4	12	10	21	2	**210**

Source: Latvian CAA (Civilās Aviācijas Aģentūra), www.caa.lv

3.16 Lithuania—Number of Aircraft by Type (2014–2015)

Year	Aircraft Type								Total Aircraft
	Fixed-wing Aeroplanes	Rotorcraft	Ultralights	Microlights	Balloons and Airships	Sailplanes	Powered Sailplanes	Amphibian	
2014	266	29	122	54	110	194	12	1	**788**
2015	265	24	125	56	112	157	11	1	**751**

Source: Lithuanian CAA (Civilinės Aviacijos Administracija), www.caa.lt

3.17 Luxembourg—Number of Aircraft by Type (2014–2015)

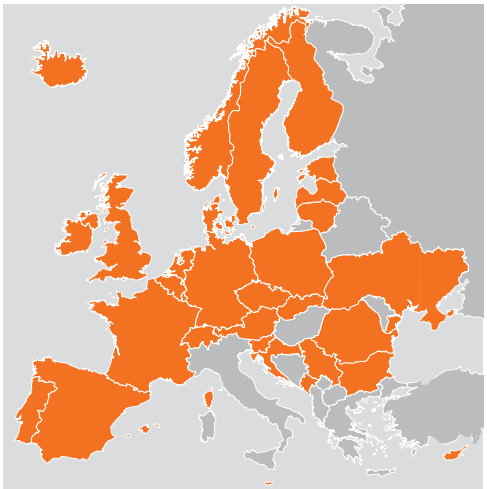
Year	Aircraft Type						Total Aircraft
	Fixed-wing Aeroplanes	Rotorcraft	Experimental	Balloons	Ultralights	Gliders	
2014	183	11	12	54	21	11	**292**
2015	191	54	12	12	14	10	**293**

Source: Luxembourg CAA (Direction De L'Aviation Civile), www.dac.public.lu

3.18 Malta—Number of Aircraft by Type (2014–2015)

Year	Aircraft Type					Total Aircraft
	Fixed-wing Aeroplanes			Rotorcraft	Microlights	
	5,700 kg and Below	5,701 kg–12,000 kg	Above 12,000 kg			
2014	38	11	60	4	33	**146**
2015	35	13	97	4	32	**181**

Source: Transport Malta, www.transport.gov.mt



European countries with data represented in this chapter

3.19 Montenegro—Number of Aircraft by Type (2014–2015)

Year	Aircraft Type						Total Aircraft
	Fixed-wing Aeroplanes		Rotorcraft	Balloons	Gliders	Amphibian	
	5,700 kg and Below	Above 5,700 kg					
2014	19	2	7	1	2	n/a	**31**
2015	9	4	4	-	1	1	**19**

Source: Civil Aviation Agency of Montenegro (Agencija za civilno vazduhoplovstvo), www.caa.me

3.20 Netherlands—Number of Aircraft by Type (2005–2015)

Year	Aircraft Type																Total Aircraft
	Fixed-wing Aeroplanes						Rotorcraft			Gliders	Powered Sailplanes	Home-built	Balloons	Amphibian	Microlights	Ultralights	
	2,000 kg and Below		2,000 kg–5,700 kg		Large Aeroplanes		Single-Engine	Multi-Engine	Gyrocopters								
	Single-Engine	Multi-Engine	Single-Engine	Multi-Engine	Piston and Turboprop	Turbofan											
2005	531	24	24	32	59	193	49	25	7	600	139	103	430	2	374	n/a	**2,592**
2006	538	23	24	31	55	196	51	27	7	592	146	110	438	2	365	n/a	**2,605**
2007	542	22	27	35	50	206	54	30	7	575	143	116	458	2	381	n/a	**2,648**
2008	567	27	25	35	44	210	56	30	7	554	151	132	461	2	403	n/a	**2,704**
2009	571	30	29	35	42	235	51	38	5	550	153	143	469	2	413	n/a	**2,766**
2010	550	31	29	35	33	233	50	41	5	547	151	149	463	2	438	n/a	**2,757**
2011	545	32	28	30	20	239	49	37	5	533	145	153	462	1	469	n/a	**2,748**
2012	523	30	26	29	22	237	48	37	6	519	151	163	466	1	494	n/a	**2,752**
2013	508	19	23	26	20	236	45	39	6	507	145	175	447	1	507	n/a	**2,704**
2014	482	16	24	25	18	237	38	35	5	493	151	177	432	1	515	n/a	**2,649**
2015	429	24	23	21	17	251	41	34	4	483	151	189	416	1	529	30	**2,643**

Turbofan data includes both business jets and aeroplanes used in airline operations.

Source: Dutch Environment and Transport Inspectorate (Inspectie Leefomgeving en Transport), www.ilent.nl

3.21 Norway—Number of Aircraft by Type (2015)

Year	Aircraft Type									Total Aircraft
	Fixed-wing Aeroplanes				Rotorcraft		Ultralights	Balloons and Airships	Gliders and Powered Gliders	
	5,700 kg and Below		Above 5,700 kg		Single-Engine	Multi-Engine				
	Single-Engine	Multi-Engine	Single-Engine	Multi-Engine						
2015	415	56	-	11	128	76	22	20	149	**877**

Source: Norway Civil Aviation Authority (Luftfartstilsynet) luftfartstilsynet.no

3.22 Poland—Number of Aircraft by Type (2014)

Year	Aircraft Type										Total Aircraft
	Fixed-wing Aeroplanes				Rotorcraft		Gliders and Powered Gliders	Balloons	Ultralights	Autogyros	
	Annex II	5,700 kg and Below		Above 5,700 kg	Single-Engine	Multi-Engine					
		Single-Engine	Multi-Engine								
2014	265	1,019	84	116	110	71	837	144	204	21	**2,871**

Source: Polish Civil Aviation Authority (Urz d Lotnictwa Cywilnego), www.ulc.gov.pl

3.23 Portugal—Number of Aircraft by Type (2014–2015)

Year	Aircraft Type										Total Aircraft
	Fixed-wing Aeroplanes				Rotorcraft		Ultralights and Powered Gliders	Gliders	Balloons	Amphibian	
	5,700 kg and Below		5,700 kg–15,000 kg	Above 15,000 kg	Single-Engine	Multi-Engine					
	Single-Engine	Multi-Engine									
2014	317	35	80	50	73	28	430	21	47	1	**1,082**
2015	512		647	284	116	42	590	49	59	15	**2,314**

The number of single-engine versus multi-engine small aeroplanes is not available. The number shown is the combined number of small aeroplanes.

Source: Portuguese Civil Aviation Authority (Instituto Nacional de Aviação Civil) www.inac.pt

3.24 Romania—Number of Aircraft by Type (2015)

Year	Aircraft Type				Total Aircraft
	Fixed-wing Aeroplanes		Rotorcraft		
	5,700 kg and Below	Above 5,700 kg	Single-Engine	Multi-Engine	
2015	97	5	17	25	**144**

Source: Romania Civil Aeronautical Authory (Autoritatea Aeronautica Civila Romana) www.caa.ro

3.25 Serbia—Number of Aircraft by Type (2014–2015)

Year	Aircraft Type											Total Aircraft
	Fixed-wing Aeroplanes		Rotorcraft		Ultralights	Balloons	Motor Gliders	Sailplanes	Amphibian	Gyrocopters	Other Aeroplanes	
	5,700 kg and Below	Above 5,700 kg	3,175 kg and Below	Above 3,175 kg								
2014	188	10	4	33	34	7	33	50	1	2	18	**380**
2015	193	11	34	4	36	6	36	51	-	3	19	**393**

Source: Civil Aviation Directorate of the Republic of Serbia (Директорат цивилног ваздухопловства Републике Србије), www.cad.gov.rs

3.26 Slovakia—Number of Aircraft by Type (2014–2015)

Year	Aircraft Type						Total Aircraft
	Aeroplanes	Rotorcraft	Ultralights	Balloons	Motor Gliders	Gliders	
2014	331	55	9	42	21	231	**689**
2015	272	68	69	41	n/a	269	**719**

Source: Transport Authority Slovakia (Dopravný úrad), www.nsat.sk

3.27 Slovenia—Number of Aircraft by Type (2011–2015)

Year	Aircraft Type							Total Aircraft
	Fixed-wing Aeroplanes	Rotorcraft	Ultralights	Balloons	Hang Gliders	Gyroplanes	Gliders	
2011	260	26	123	68	72	0	162	**711**
2012	246	26	128	78	72	1	174	**725**
2013	223	23	108	61	72	3	171	**661**
2014	221	22	112	61	72	3	172	**663**
2015	202	21	113	58	71	3	170	**638**

Source: Civil Aviation Agency, Slovenia (agencija za civilno letalstvo Republike Slovenije), www.caa.si

3.28 Spain—Number of Aircraft by Type (2014–2015)

Year	Aircraft Type												Total Aircraft
	Fixed-wing Aeroplanes					Rotorcraft		Amateur-Built	Ultralights	Balloons and Airships	Gliders	Powered Gliders	
	5,700 kg and Below		5,700 kg–15,000 kg		Above 15,000 kg	Single-Engine	Multi-Engine						
	Single-Engine	Multi-Engine	Single-Engine	Multi-Engine									
2014	1,581	356	63	98	89	313	238	1,547	1,575	561	225	27	**6,673**
2015	1,557	350	66	80	92	306	257	1,586	1,582	572	254	36	**6,738**

Source: Spanish State Aviation Safety Agency (Agencia Estatal de Seguridad Aérea), www.seguridadaerea.gob.es

3.29 Sweden—Number of Aircraft by Type (2008–2014)

Year	Motorpowered Aircraft by Weight							Gliders, Powered Gliders, and Balloons	Total Aircraft
	2,000 kg and Below	2,001 kg–5,700 kg	5,701 kg–10,000 kg	10,001 kg–15,000 kg	15,001 kg–25,000 kg	25,001 kg–100,000 kg	Above 100,000 kg		
2008	2,096	187	46	30	64	54	5	436	**2,918**
2009	2,115	191	44	27	67	59	5	420	**2,928**
2010	2,251	189	40	27	72	47	5	274	**2,905**
2011	2,092	198	37	21	75	45	5	255	**2,728**
2012	2,093	191	34	22	72	44	3	263	**2,722**
2013	2,094	186	37	23	84	44	2	321	**2,791**
2014	2,090	186	31	24	82	45	2	340	**2,800**

The number of gliders, powered gliders, and balloons is based on the number of valid airworthiness certificates on December 31 of the year.

Source: Swedish Transport Ministry (Transportstyrelsen), www.transportstyrelsen.se

3.30 Switzerland—Number of Aircraft by Type (2008–2014)

Year	Aircraft Type									Total Aircraft
	Fixed-wing Aeroplanes				Rotorcraft	Motor Gliders	Gliders	Free Balloons	Airships	
	2,250 kg and Below	2,250 kg–5,700 kg	Above 5,700 kg	Total Aeroplanes						
2008	1,468	147	285	1,900	307	246	875	427	10	**3,765**
2009	1,436	140	293	1,869	320	246	843	397	10	**3,685**
2010	1,413	197	303	1,913	327	251	824	381	9	**3,705**
2011	1,419	214	299	1,932	334	254	800	379	10	**3,709**
2012	1,461	167	294	1,922	326	255	767	377	10	**3,657**
2013	1,458	176	290	1,924	312	255	745	373	11	**3,620**
2014	1,425	171	284	1,880	321	258	720	366	11	**3,556**

Souce: Swiss Federal Office of Civil Aviation (Bundesamt für Zivilluftfahrt), www.bazl.admin.ch

3.31 United Kingdom—Number of Aircraft by Type (2010–2014)

Year	Number of Registered Aircraft by Type																	Total Aircraft
	Fixed-wing Aeroplanes										Micro-lights	Rotor-craft	Gliders	Hang Gliders	Balloons and Min. Lift	Air-ships	Gyro-planes	
	Am-phibian	750 kg and Below	751 kg–5,700 kg	5,701 kg–15,000 kg	15,001 kg–50,000 kg	Above 50,000 kg	EASA	Non-EASA	SLMG	Sea-planes								
2010	20	3,217	5,764	253	306	742	71	4,456	287	2	4,071	1,364	2,295	8	1,720	18	312	**20,379**
2011	20	3,199	5,663	228	297	742	74	4,471	285	2	4,043	1,299	2,256	8	1,655	19	324	**20,040**
2012	21	3,245	5,564	219	293	755	74	4,487	296	2	4,045	1,260	2,248	9	1,639	21	322	**19,939**
2013	21	3,269	5,505	212	289	761	75	4,531	302	2	4,029	1,232	2,247	9	1,625	20	327	**19,850**
2014	20	n/a	n/a	n/a	n/a	n/a	74	4,565	314	3	3,998	1,231	2,267	9	1,607	21	329	**19,846**

SLMG = Self-Launching Motor Glider
Does not differentiate if aeroplane is used for GA or commercial operations.

Source: UK Civil Aviation Authority, Civil Registry Statistics, G-INFO Database, www.caa.co.uk

Data from December 31 of specified year (published first day of the following year).
The UK CAA restated statistics for 5,701–15,000 kg and 15,001–50,000 kg in January 2013.
This re-statement does not change the total number of aircraft.
The fixed-wing aeroplane data does not include one (1) aeroplane in the 751–5,700 kg weight group, because it is listed as unmanned for 2013.

The 2014 data does not contain detailed weight information for fixed wing aeroplanes. The UK is in the process of reviewing its registry data to map to European Aviation Safety Agency (EASA) aircraft classifications.
The category shown as EASA includes aircraft identified as EASA aircraft, but the individual category code has not yet been determined (usually because the aircraft does not have a current CofA).
The category shown as Non-EASA includes either an Annex II aircraft or an aircraft which status has not yet been determined.

3.32 Ukraine—Number of Aircraft by Type (2015)

Year	Aircraft Type						Total Aircraft
	Fixed-wing Aeroplanes	Rotorcraft	Ultralights	Balloons	Gliders	Autogyros	
2014	462	193	55	19	52	7	**788**

Source: State Aviation Administration (Державна авіаційна служба України) www.avia.gov.ua/

CHAPTER 4

Asia-Pacific Fleet Data

4.1 Australia—Number of General Aviation and Regional Aircraft by Category (1995–2013)

Year	Aircraft Type					Total
	Amateur-Built	Fixed-wing Aeroplanes		Rotorcraft	Balloons & Airships	
		Single-Engine	Multi-Engine			
1995	-	6,787	1,779	739	243	**9,548**
1996	-	6,861	1,799	739	266	**9,665**
1997	-	6,994	1,803	768	284	**9,849**
1998	-	7,137	1,783	791	295	**10,006**
1999	-	7,247	1,743	868	310	**10,168**
2000	-	7,302	1,755	743	325	**10,125**
2001	673	6,680	1,736	979	334	**10,402**
2002	707	6,668	1,706	1,038	336	**10,455**
2003	789	6,727	1,696	1,121	338	**10,671**
2004	848	6,794	1,718	1,194	350	**10,904**
2005	896	6,908	1,733	1,292	351	**11,180**
2006	910	6,838	1,730	1,320	319	**11,117**
2007	968	6,955	1,804	1,481	333	**11,541**
2008	1,037	7,180	1,871	1,619	338	**12,045**
2009	1,071	7,230	1,885	1,703	340	**12,229**
2010	1,111	7,375	1,932	1,800	346	**12,564**
2011	1,176	7,410	1,930	1,855	354	**12,725**
2012	1,187	7,256	1,815	1,817	355	**12,430**
2013	1,278	7,798	2,053	2,077	379	**13,585**

Source: Dept. of Transportation and Regional Services, Bureau of Transport and Regional Economics, www.bitre.gov.au

4.2 China—Number of Aircraft by Type (2012–2013)

Year	Airplanes				Rotorcraft	Balloons	Airships	Other	Total Aircraft
	Piston-Engine		Turbine-Engine						
	Single	Twin	Turboprop	Turbojet					
2012	705	102	129	2,134	298	21	6	27	**3,422**
2013	794	96	151	2,371	385	24	6	30	**3,857**

The turbojet category includes air carrier data. The 2013 data included 202 business jets.

Source: Civil Aviation Administration of China, www.caac.gov.cn

4.3 Japan—Number of Aircraft by Type (1997–2006)

Year	Airplanes					Rotorcraft		Gliders	Airships	Total Aircraft
	Piston		Turboprop		Turbojet or Turbofan					
	Single-Engine	Multi-Engine	Single-Engine	Multi-Engine		Piston-Engine	Turbine-Engine			
1997	605	79	13	120	419	200	804	579	1	**2,820**
1998	596	69	13	117	443	183	768	596	1	**2,786**
1999	589	63	13	115	446	182	761	607	1	**2,777**
2000	584	63	13	110	450	193	764	624	1	**2,802**
2001	577	62	16	113	455	183	747	644	1	**2,798**
2002	575	59	17	112	464	166	703	648	1	**2,745**
2003	570	53	18	112	474	160	661	649	1	**2,698**
2004	558	52	18	112	474	154	647	658	2	**2,675**
2005	543	51	18	110	485	160	630	659	2	**2,658**
2006	540	46	21	112	500	160	618	665	3	**2,665**

Source: Civil Aviation Bureau, www.mlit.go.jp

4.4 New Zealand—Number of Aircraft by Type (2000–2015)

Year	Aircraft Type						Total Aircraft
	Airplanes by Mass				Sport	Rotorcraft	
	Below 2,721 kg	2,721–5,670 kg	5,670–13,608 kg	13,608 kg & Above			
2000	1,522	109	69	75	1,127	411	**3,313**
2001	1,506	107	67	77	1,129	420	**3,306**
2002	1,492	105	82	77	1,172	450	**3,378**
2003	1,505	117	74	83	1,245	506	**3,530**
2004	1,548	132	68	95	1,358	594	**3,795**
2005	1,564	143	65	103	1,419	643	**3,937**
	Agricultural	**Small**	**Medium**	**Large**	**Sport**	**Rotorcraft**	
2006	127	1,420	78	117	1,638	653	**4,033**
2007	124	1,449	82	116	1,723	698	**4,192**
2008	120	1,492	81	121	1,793	747	**4,354**
2009	110	1,510	84	118	1,833	760	**4,415**
2010	110	1,515	84	119	1,853	761	**4,442**
	Airplane	**Microlight [1 & 2]**	**Amateur-Built [1]**	**Gliders [2]**	**Other [3]**	**Rotorcraft**	
2012	1,985	1,029	316	417	311	793	**4,851**
2013	1,976	1,026	291	443	307	831	**4,874**
2014	1,964	1,058	289	426	329	862	**4,928**
2015	1,970	1,082	292	430	335	869	**4,978**

The data does not differentiate if airplane is used for GA or commercial operations.
In 2006, the CAA stopped publishing the number of registered aircraft by weight in favor of classes.
In 2012, the CAA began publishing aircraft registry statistics by aircraft class.

1. Amateur-built aircraft includes airplanes, gliders, and helicopters.
2. Gliders includes gliders, paragliders, power gliders, amateur-built gliders, and hang gliders.
3. Other includes parachutes, gyroplanes, and balloons.

Source: Civil Aviation Authority of New Zealand, www.caa.govt.nz

4.5 Singapore—Number of Aircraft by Type (2012–2015)

Year	Type of Aircraft				Total Aircraft
	General Aviation Airplanes		Rotorcraft	Airline	
	Piston	Turbine			
2012	23	0	2	178	**203**
2013	22	0	1	191	**214**
2014	20	0	4	200	**224**
2015	22	0	2	203	**227**

Source: Civil Aviation Authority of Singapore, www.caas.gov.sg

Select Other GA Aircraft Registry Data for Large Fleets

5.1 Brazil—Number of Aircraft Registrations by Type (1996–2013)

Year	Aircraft Type									Total Aircraft
	Airplanes				Other Aircraft					
	Piston-Engine	Agricultural	Turboprop	Jet Turbine	Helicopters	Sailplanes	Balloons	Dirigibles	Experimental	
1996	7,987	n/a	1,013	462	547	302	4	n/a	n/a	**10,315**
1997	8,055	n/a	1,111	488	649	304	4	n/a	n/a	**10,611**
1998	8,172	n/a	1,182	513	749	306	4	1	n/a	**10,927**
1999	8,273	684	1,192	497	791	307	4	1	3,152	**14,217**
2000	8,333	724	1,218	500	841	308	4	1	3,348	**14,553**
2001	8,412	767	1,260	542	897	309	3	1	3,513	**14,937**
2002	8,445	810	1,303	579	940	310	3	1	3,684	**15,265**
2003	8,496	862	1,323	560	955	316	3	1	3,882	**15,536**
2004	8,604	900	1,348	559	981	316	3	1	4,069	**15,881**
2005	8,718	955	1,361	596	989	316	3	1	4,286	**16,270**
2006	8,798	978	1,399	603	1,011	309	3	1	3,001	**15,125**
2007	8,909	1,005	1,488	647	1,097	303	3	1	3,225	**15,673**
2008	9,164	1,049	1,617	773	1,194	299	3	1	3,525	**16,576**
2009	9,354	1,044	1,700	820	1,325	3,000	3	1	3,764	**19,765**
2010	n/a	1,581	n/a	n/a	1,524	n/a	n/a	n/a	4,051	**17,335**
2011	n/a	1,695	n/a	n/a	1,717	n/a	n/a	n/a	4,474	**18,710**
2012	n/a	1,800	n/a	n/a	1,909	n/a	n/a	n/a	4,750	**19,769**
2013	n/a	1,870	n/a	n/a	2,038	n/a	n/a	n/a	4,906	**20,429**

The experimental category includes ultralights, balloons, gyrocopters, sailplanes, motorpowered sailplanes, dirigibles, and experimental airplanes starting in 2010.

ANAC began identification of agricultural aircraft in 2012. The data set for agricultural aircraft captures aircraft also identified in other columns.

Source: Agência Nacional de Aviação Civil (ANAC), Brazil, www.anac.gov.br

5.2 South Africa—Number of General Aviation Aircraft by Type (1999–2014)

Year	Aircraft Type														Total Aircraft
	Aeroplanes											Helicopters		Sport, Rec., Gliders, & Other	
	Piston-Engine Powered				Turboprop				Turbojet						
	One-Engine	Two-Engine	Other	Agricultural	One-Engine	Two-Engine	Other	Agricultural	Two-Engine	Three-Engine	Other	Piston	Turbine		
1999	2,282	695	4	144	66	201	10	43	157	17	21	228	251	3,103	**7,222**
2000	2,285	706	6	143	68	215	10	45	160	20	21	248	263	3,294	**7,484**
2001	2,280	701	6	144	79	237	10	48	164	27	22	258	271	3,470	**7,717**
2002	2,299	698	10	144	83	249	8	46	176	29	27	263	279	3,616	**7,927**
2003	2,338	716	12	148	91	271	8	52	197	31	34	308	290	3,907	**8,403**
2004	2,422	724	11	151	88	306	9	54	189	34	41	348	318	4,127	**8,822**
2005	2,459	731	10	150	93	310	8	56	206	21	44	385	337	4,253	**9,063**
2006	2,608	738	8	159	110	331	6	53	261	18	58	514	384	4,941	**10,189**
2007	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**-**
2008	2,666	755	7	153	108	324	10	55	299	18	74	575	434	5,215	**10,693**
2009	2,712	751	7	154	105	329	9	54	315	15	82	604	461	5,352	**10,950**
2010	2,745	713	8	154	111	353	9	55	339	15	92	635	474	5,500	**11,203**
2011	2,808	710	9	152	112	353	9	54	365	16	93	669	459	5,674	**11,483**
2012	2,851	707	10	153	113	349	8	54	377	18	87	671	502	5,846	**11,746**
2013	2,898	711	12	154	115	341	7	55	381	18	88	680	522	5,964	**11,946**
2014	2893	716	28	157	120	347	8	60	395	18	87	687	540	6,072	**12,128**

2007 data is not available from the South African Aircraft Registry.

Source: South African Civil Aviation Authority, www.caa.co.za, and Aircraft Registry, www.avdex.co.za

CHAPTER 6
U.S. Pilot and Airmen Certificate Statistics

6.1 Active FAA Certificated Pilots (1980–2015)

Year	Pilots		Students [7]	Rec. [5]	Sport [6]	Airplane [1]			Rotorcraft (Only)	Glider (Only) [2]	Lighter-Than-Air	Flight Instructor [3]	Instrument Ratings [3, 4]	
	Total	% Women				Private	Commercial	ATP					Total	% of Total
1980	**827,071**	6.40%	199,833	-	-	357,479	183,442	69,569	6,030	7,039	3,679	60,440	260,461	41.5%
1981	**764,182**	6.24%	179,912	-	-	328,562	168,580	70,311	6,453	7,388	2,976	57,523	252,535	43.2%
1982	**733,255**	6.18%	156,361	-	-	322,094	165,093	73,471	7,034	7,842	1,360	62,492	255,073	44.2%
1983	**718,004**	6.08%	147,197	-	-	318,643	159,495	75,938	7,237	8,157	1,337	62,201	254,271	44.5%
1984	**722,376**	6.14%	150,081	-	-	320,086	155,929	79,192	7,532	8,390	1,166	61,173	256,584	44.8%
1985	**709,540**	6.13%	146,652	-	-	311,086	151,632	82,740	8,123	8,168	1,139	58,940	258,559	45.9%
1986	**709,118**	6.08%	150,273	-	-	305,736	147,798	87,186	8,122	8,411	1,133	57,355	262,388	47.0%
1987	**699,653**	6.09%	146,016	-	-	300,949	143,645	91,287	8,702	7,901	1,153	60,316	266,122	48.1%
1988	**694,016**	6.09%	136,913	-	-	299,786	143,030	96,968	8,608	7,600	1,111	61,798	273,804	49.1%
1989	**700,010**	6.05%	142,544	-	-	293,179	144,540	102,087	8,863	7,708	1,089	61,472	282,804	50.7%
1990	**702,659**	5.77%	128,663	87	-	299,111	149,666	107,732	9,567	7,833	n/a	63,775	297,073	51.8%
1991	**692,095**	5.91%	120,203	161	-	293,306	148,385	112,167	9,860	8,033	n/a	69,209	303,193	53.0%
1992	**682,959**	5.95%	114,597	187	-	288,078	146,385	115,855	9,652	8,205	n/a	72,148	306,169	53.9%
1993	**665,069**	5.93%	103,583	206	-	283,700	143,014	117,070	9,168	8,328	n/a	75,021	305,517	54.4%
1994	**654,088**	5.99%	96,254	241	-	284,236	138,728	117,434	8,719	8,476	n/a	76,171	302,300	54.2%
1995	**639,184**	5.67%	101,279	232	-	261,399	133,980	123,877	7,183	11,234	n/a	77,613	298,798	55.6%
1996	**622,261**	5.57%	94,947	265	-	254,002	129,187	127,486	6,961	9,413	n/a	78,551	297,895	56.5%
1997	**616,342**	5.59%	96,101	284	-	247,604	125,300	130,858	6,801	9,394	n/a	78,102	297,409	57.2%
1998	**618,298**	5.72%	97,736	305	-	247,226	122,053	134,612	6,964	9,402	n/a	79,171	300,183	57.7%
1999	**635,472**	5.81%	97,359	343	-	258,749	124,261	137,642	7,728	9,390	n/a	79,694	308,951	57.5%
2000	**625,581**	6.11%	93,064	340	-	251,561	121,858	141,596	7,775	9,387	n/a	80,931	311,944	58.6%
2001	**612,274**	5.82%	86,731	316	-	243,823	120,502	144,702	7,727	8,473	n/a	82,875	315,276	60.0%
2002	**631,762**	5.49%	85,991	317	-	245,230	125,920	144,708	7,770	21,826	n/a	86,089	317,389	58.2%
2003	**625,011**	6.12%	87,296	310	-	241,045	123,990	143,504	7,916	20,950	n/a	87,816	315,413	58.7%
2004	**618,633**	6.09%	87,910	291	-	235,994	122,592	142,160	8,586	21,100	n/a	89,596	313,545	59.1%
2005	**609,737**	6.11%	87,213	276	134	228,619	120,614	141,992	9,518	21,369	n/a	90,555	311,828	59.7%
2006	**597,109**	6.13%	84,866	239	939	219,233	117,610	141,935	10,690	21,597	n/a	91,343	309,333	60.5%
2007	**590,349**	6.12%	84,339	239	2,031	211,096	115,127	143,953	12,290	21,274	n/a	92,175	309,865	61.5%
2008	**613,746**	5.83%	80,989	252	2,623	222,596	124,746	146,838	14,647	21,055	n/a	93,202	325,247	61.4%
2009	**594,285**	6.39%	72,280	234	3,248	211,619	125,738	144,600	15,298	21,268	n/a	94,863	323,495	62.4%
2010	**627,588**	5.86%	119,119	212	3,682	202,020	123,705	142,198	15,377	21,275	n/a	96,473	318,001	63.0%
2011	**617,128**	6.39%	118,657	227	4,066	194,441	120,865	142,511	15,220	21,141	n/a	97,409	314,122	63.6%
2012	**610,576**	6.77%	119,946	218	4,493	188,001	116,400	145,590	15,126	20,802	n/a	98,328	311,952	64.2%
2013	**599,086**	6.78%	120,285	238	4,824	180,214	108,206	149,824	15,114	20,381	n/a	98,842	307,120	64.8%
2014R	**593,499**	6.63%	120,546	220	5,157	174,883	104,322	152,933	15,511	19,927	n/a	100,993	306,066	65.5%
2015	**590,038**	6.66%	122,729	190	5,482	170,718	101,164	154,730	15,566	19,460	n/a	102,628	304,329	71.3%

Source: FAA

1. Includes pilots with an airplane-only certificate. Also includes those with an airplane and a helicopter and/or glider certificate. Prior to 1995, these pilots were categorized as private, commercial, or airline transport, based on their airplane certificate. Beginning in 1995, they are categorized based on their highest certificate. For example, if a pilot holds a private airplane certificate and a commercial helicopter certificate, prior to 1995, the pilot would be categorized as private; 1995 and after, as commercial.
2. Glider pilots are not required to have a medical examination; however, the totals represent pilots who received a medical examination within the last 25 months.
3. Not included in total.
4. The instrument rating is as shown on pilot certificates but does not indicate an additional certificate. The percent of total does not include student, sport, and recreational pilots.
5. Recreational certificate was first issued in 1990.
6. Sport pilot certificate was first issued in 2005.
7. The Federal Aviation Administration (FAA) changed the validity of student pilot certificates in 2010 through an amendment to 14 CFR 61.19(b)(1), resulting in the duration of validity for student pilot certificates for pilots under 40 years of age, increasing from 36 to 60 months. This created an increase in the active student pilot population to 119,119 active airmen at the end of 2010 compared to 72,280 the prior year.
8. 1994 counts based on medical certificates issued 27 or fewer months ago. All other years based on medical certificates issued 25 or fewer months ago.

6.2 Active FAA Certificated Pilots and Flight Instructors by State and Region (as of December 31, 2015)

FAA Region and State	Total Pilots	Students	Recreational	Sport	Airplane			Rotor, Glider, & Balloon	Flight Instructor[1]
					Private	Commercial	Airline Transport		
Total[2]	**590,038**	**122,729**	**191**	**5,482**	**186,786**	**116,291**	**158,559**	**84,525**	**102,578**
United States – Total[3]	**544,342**	**111,694**	**190**	**5,456**	**177,447**	**99,446**	**150,109**	**79,329**	**99,872**
Non-U.S. Total[5]	**45,696**	**11,035**	**1**	**26**	**9,339**	**16,845**	**8,450**	**5,196**	**2,706**
Alabama	7,118	1,501	3	68	2,266	1,888	1,392	1,765	1,499
Alaska	7,933	1,184	1	55	2,810	1,687	2,196	983	1,395
American Samoa	5	0	0	0	0	2	3	0	0
Arizona	18,325	4,103	1	146	4,941	3,591	5,543	3,517	3,864
Arkansas	4,917	1,091	0	77	1,713	1,132	904	461	753
California	58,901	12,482	3	432	22,614	11,262	12,108	9,650	9,670
Colorado	17,583	3,098	2	118	5,118	3,107	6,140	3,127	3,668
Connecticut	4,903	881	0	26	1,794	788	1,414	744	848
Delaware	1,317	312	0	12	380	206	407	183	267
District of Columbia	567	139	0	6	233	87	102	83	94
Federated States of Micronesia	2	0	0	0	0	2	0	1	0
Florida	54,254	13,177	7	499	13,552	9,797	17,222	6,984	9,904
Georgia	17,913	3,048	5	138	4,795	2,538	7,389	2,221	3,345
Guam	199	20	0	0	20	22	137	27	50
Hawaii	3,145	638	0	11	615	694	1,187	776	698
Idaho	4,850	919	2	76	1,862	1,014	977	835	833
Illinois	15,997	3,043	4	262	5,364	2,564	4,760	1,883	3,346
Indiana	9,342	1,782	8	193	3,469	1,611	2,279	1,006	1,679
Iowa	5,009	983	2	92	2,212	1,001	719	596	825
Kansas	6,813	1,299	1	78	2,754	1,330	1,351	812	1,433
Kentucky	5,585	1,060	4	55	1,547	835	2,084	710	1,060
Louisiana	5,579	1,214	1	62	1,795	1,296	1,211	1,116	918
Maine	2,409	472	1	49	881	468	538	300	380
Marshall Islands	3	0	0	0	0	1	2	0	0
Maryland	7,677	2,005	2	82	2,418	1,325	1,845	1,125	1,361
Massachusetts	7,680	1,758	2	61	3,010	1,287	1,562	1,037	1,220
Michigan	13,505	2,574	10	195	5,085	2,407	3,234	1,620	2,463
Minnesota	12,165	2,080	0	99	4,149	2,017	3,820	1,033	2,551
Mississippi	4,014	1,021	1	30	1,187	823	952	481	654
Missouri	8,904	1,821	6	137	3,184	1,617	2,139	1,177	1,626
Montana	3,678	722	4	30	1,426	878	618	618	668
Nebraska	3,550	833	0	32	1,383	686	616	305	509
Nevada	6,954	1,159	1	47	1,909	1,335	2,503	1,475	1,455
New Hampshire	3,579	506	1	47	1,092	576	1,357	591	713
New Jersey	8,630	1,827	6	39	2,968	1,442	2,348	1,395	1,609
New Mexico	4,430	921	3	63	1,685	1,065	693	1,448	639
New York	15,744	4,143	17	123	5,588	2,790	3,083	2,369	2,622
North Carolina	13,771	2,539	4	135	4,542	2,216	4,335	1,798	2,532
North Dakota	3,502	820	0	15	1,111	1,256	300	258	495
Northern Mariana Islands	16	5	0	0	2	3	6	2	5
Ohio	14,834	2,807	33	229	5,310	2,438	4,017	1,909	2,952
Oklahoma	7,677	1,966	1	45	2,629	1,547	1,489	724	1,315
Oregon	8,693	1,671	2	80	3,506	1,932	1,502	1,847	1,625
Palau	1	0	0	0	1	0	0	1	0
Pennsylvania	14,772	2,813	23	179	5,103	2,507	4,147	2,389	2,739
Puerto Rico	1,564	579	0	51	340	235	359	159	226
Rhode Island	936	199	0	7	345	154	231	108	145
South Carolina	6,463	1,112	0	62	2,149	1,177	1,963	914	1,119
South Dakota	2,185	388	0	52	847	495	403	283	429
Tennessee	11,487	2,063	4	96	3,232	1,883	4,209	1,602	2,131
Texas	49,675	9,970	4	368	14,294	8,424	16,615	6,734	8,957
Utah	8,072	1,764	1	61	2,337	1,516	2,393	1,264	1,642
Vermont	1,229	216	0	9	502	252	250	265	186
Virgin Islands	175	39	0	1	57	31	47	20	25
Virginia	13,961	2,753	7	145	4,124	2,671	4,261	2,333	2,778
Washington	18,888	3,492	4	188	6,010	3,271	5,923	2,753	3,619
West Virginia	1,675	399	0	38	625	317	296	236	281
Wisconsin	8,881	1,589	8	232	3,634	1,345	2,073	801	1,595
Wyoming	1,843	380	1	19	766	373	304	280	292
AA – Americas[4]	22	2	0	0	4	5	11	10	8
AE – Europe and Canada[4]	330	76	0	2	69	101	82	89	84
AP – Pacific[4]	511	236	0	2	89	126	58	96	73

1. Not included in total.
2. Includes non-U.S total.
3. Includes American Samoa, Federated States of Micronesia, Guam, Marshall Islands, Northern Mariana Islands, Palau, Puerto Rico, and Virgin Islands.
4. Military personnel holding civilian certificates and stationed in foreign country.
5. Non-U.S. are non-U.S. nationals who hold FAA certificates.

Source: FAA

6.3 Active FAA Pilot Certificates Held by Category and Age Group of Holder (as of December 31, 2015)

Age Group	Type of Pilot Certificate							
	Total Pilots	Student	Recreational	Sport Pilot	Private	Commercial	Airline Transport	CFI
Total	**39,287**	**14,580**	**16**	**211**	**11,339**	**6,587**	**6,554**	**6,669**
14–15	29	29	0	0	0	0	0	0
16–19	2,393	1,937	1	2	423	30	0	3
20–24	6,339	4,036	5	22	1,481	762	33	284
25–29	5,674	2,888	3	15	1,169	1,297	302	695
30–34	4,291	1,763	1	13	908	852	754	968
35–39	3,494	1,174	0	7	763	599	951	938
40–44	3,072	913	0	4	703	418	1,034	864
45–49	2,731	522	0	10	758	361	1,080	822
50–54	2,964	504	0	26	953	456	1,025	641
55–59	3,060	366	1	48	1,381	510	754	544
60–64	2,589	237	2	33	1,322	585	410	433
65–69	1,768	133	1	12	991	500	131	250
70–74	550	50	1	12	324	115	48	128
75–79	215	19	1	5	110	58	22	62
80 and over	118	9	0	2	53	44	10	37

Source: FAA

6.4 Average Age of Active FAA Pilots by Category (1993–2015)

Year	Average All Pilots	Type of Pilot Certificate					
		Student	Recreational	Sport Pilot	Private	Commercial	Airline Transport
1993	**41.3**	33.7	45.5	-	42.7	41.9	44.1
1994	**41.9**	34.3	46.5	-	43.2	42.4	44.4
1995	**42.9**	34.5	48.3	-	44.6	43.7	44.9
1996	**43.2**	34.6	49.3	-	45.1	44.1	45.1
1997	**43.6**	34.6	49.5	-	45.6	44.6	45.6
1998	**43.8**	34.7	49.8	-	45.9	45.0	45.4
1999	**43.6**	34.6	49.5	-	45.6	44.6	45.3
2000	**43.7**	34.1	49.8	-	45.6	44.9	45.8
2001	**44.0**	33.3	50.8	-	46.0	45.0	46.0
2002	**44.4**	33.7	51.0	-	46.2	45.5	46.6
2003	**44.7**	34.0	51.5	-	46.5	45.6	47.0
2004	**45.1**	34.2	51.3	-	47.0	45.9	47.5
2005	**45.5**	34.6	50.9	53.2	47.4	46.0	47.8
2006	**45.6**	34.4	51.5	52.9	47.7	46.1	48.1
2007	**45.7**	34.0	52.4	52.9	48.0	46.1	48.3
2008	**45.1**	33.6	50.1	53.2	46.9	44.8	48.5
2009	**45.3**	33.5	50.4	53.5	47.1	44.2	48.9
2010	**44.2**	31.4	50.8	53.8	47.6	44.2	49.4
2011	**44.4**	31.4	48.8	54.4	47.9	44.4	49.7
2012	**44.7**	31.5	47.8	54.7	48.3	44.8	49.9
2013	**44.8**	31.5	44.8	55.2	48.5	45.4	49.7
2014	**44.8**	31.5	43.1	55.8	48.5	45.5	49.8
2015	**38.9**	30.1	40.0	50.0	44.6	41.7	45.6

Source: FAA

6.5 FAA Pilot Certificates Issued by Category (1978–2014)

Year	Student		Private		Commercial		Airline Transport		Helicopter (only)		Glider (only)	
	Original	Additional	Original	Additional	Original	Additional	Original	Additional	Original	Additional	Original	Additional
1978	137,032	-	58,064	16,048	11,789	17,501	6,912	5,921	1,122	287	759	188
1979	135,956	-	54,466	16,466	12,627	17,793	8,981	6,603	1,300	283	642	157
1980	102,301	-	50,458	16,035	12,452	16,015	7,116	6,289	1,721	272	583	151
1981	111,531	-	45,713	14,897	10,657	12,146	4,763	5,991	1,985	302	629	164
1982	90,816	-	52,144	16,276	11,048	11,910	5,037	7,956	2,256	330	793	184
1983	92,239	-	41,210	12,721	8,789	9,513	5,643	8,187	1,932	315	606	162
1984	90,167	-	36,545	11,784	7,702	8,895	5,099	9,335	1,808	319	524	139
1985	86,060	-	35,402	11,636	8,404	7,197	6,081	9,192	2,105	207	537	138
1986	88,699	-	34,816	12,672	8,889	9,241	6,498	10,372	2,209	234	514	109
1987	85,611	-	42,287	16,302	11,314	11,635	7,678	11,956	2,217	293	542	74
1988	86,193	-	39,900	15,800	12,042	10,597	7,461	11,209	1,947	287	475	28
1989	87,698	-	35,360	22,240	13,759	11,778	7,829	12,698	2,240	252	336	22
1990	88,586	-	41,749	19,299	15,500	12,584	8,013	13,540	2,700	266	378	41
1991	82,205	-	49,580	23,630	16,869	13,506	8,437	13,979	3,344	291	487	29
1992	78,377	-	39,968	19,419	14,354	11,630	7,699	13,391	2,684	291	376	32
1993	69,178	-	39,060	18,801	12,645	10,466	6,129	12,995	2,310	30	341	28
1994	66,501	-	32,787	14,568	9,237	8,630	5,360	10,963	1,801	267	320	25
1995	60,497	-	28,333	15,331	9,133	9,042	5,965	13,641	1,724	290	373	83
1996	56,653	-	24,714	18,199	10,245	10,494	7,444	17,229	1,638	349	633	195
1997	60,941	-	21,552	13,522	8,988	9,587	7,045	16,266	1,385	296	501	161
1998	63,037	756	26,297	15,966	10,042	10,269	7,547	19,085	1,530	211	472	105
1999	58,278	1,030	24,630	15,222	9,737	9,963	6,721	19,380	1,514	222	423	98
2000	58,042	1,070	27,223	17,223	11,813	11,652	7,715	20,558	1,776	234	455	62
2001	61,897	1,161	25,372	16,807	11,499	11,115	7,070	21,357	1,698	218	403	77
2002	65,421	1,317	28,659	18,607	12,299	11,628	4,718	18,502	2,073	275	336	38
2003	58,842	1,230	23,866	14,899	9,670	8,872	3,892	13,196	2,013	269	312	47
2004	59,202	1,302	23,031	14,234	9,836	9,635	4,255	15,328	2,736	366	309	43
2005	53,576	1,418	20,889	12,952	8,834	8,874	4,750	15,534	2,917	521	290	27
2006	61,448	1,551	20,217	13,079	8,687	9,603	4,748	15,942	3,569	816	298	42
2007	66,953	1,450	20,299	13,970	9,318	9,574	5,918	15,973	4,073	1,041	263	14
2008	61,194	1,507	19,052	14,409	10,595	10,202	5,204	15,658	3,639	930	204	11
2009	54,876	2,006	19,893	14,570	11,350	9,399	3,113	11,605	3,648	1,011	249	10
2010	54,064	1,057	14,977	10,260	8,056	7,778	3,072	10,890	2,686	670	222	8
2011	55,298	857	16,802	10,703	8,559	10,027	4,677	13,694	3,123	894	219	10
2012	54,370	694	16,571	10,720	8,651	9,341	6,396	12,768	2,892	900	180	0
2013	49,566	676	15,776	10,098	8,140	7,922	8,346	13,288	2,888	899	163	1
2014	49,261	698	17,795	11,396	9,803	8,840	7,749	19,481	3,754	1,072	195	5

An additional rating is added to an existing pilot certificate (e.g., instrument rating added to a private certificate).

Source: FAA

DEFINITIONS

Active Pilot — A pilot who holds a pilot certificate and a valid medical certificate (except for sport pilots).

Airman — A pilot, mechanic, or other licensed aviation technician. The term refers to men and women.

Airman Certificate — A document issued by the Administrator of the Federal Aviation Administration. The Airman Certificate certifies that the holder complies with the regulations governing the capacity in which the certificate authorizes the holder to act as an airman in connection with an aircraft.

6.6 FAA Non-Pilot Certificates (2000–2015)

Year	Mechanic	Repairman	Parachute Rigger	Ground Instructor	Dispatcher	Flight Navigator	Flight Engineer	Flight Attendant [1]
2000	344,434	38,208	10,477	72,326	16,340	570	65,098	n/a
2001	310,850	40,085	7,927	72,261	16,070	509	65,398	n/a
2002	315,928	37,114	8,063	73,658	16,695	431	63,681	n/a
2003	313,032	37,248	7,883	72,692	16,955	382	61,643	n/a
2004	317,111	39,231	8,011	73,735	17,493	336	59,376	n/a
2005	320,293	40,030	8,150	74,378	18,079	298	57,756	125,032
2006	323,097	40,329	8,252	74,849	18,610	264	55,952	134,874
2007	322,852	40,277	8,186	74,544	19,043	250	54,394	147,013
2008	326,276	41,056	8,248	74,983	19,590	222	53,135	154,671
2009	329,027	41,389	8,362	75,461	20,132	181	51,022	156,741
2010	308,367	41,196	8,009	70,560	16,576	171	48,569	156,368
2011	335,431	40,802	8,491	74,586	21,363	146	47,659	167,037
2012	337,775	40,444	8,474	73,599	21,862	141	46,639	172,357
2013	338,844	39,952	8,491	72,493	22,401	126	45,317	179,531
2014	341,409	39,566	8,702	71,755	23,113	115	43,803	188,936
2015	342,528	39,363	8,846	70,957	23,754	102	42,460	200,319

Number of non-pilot certificates represents all certificates on record since no medical examination is required.
1. Flight attendant information was first available from FAA Registry in 2005.

Source: FAA

PILOT CATEGORIES

Student Pilot — A student pilot must be 16 years old, medically certificated by a Federal Aviation Administration (FAA) medical examiner, and may only fly solo under the supervision of a flight instructor. A student pilot may not operate an aircraft that is carrying passengers or that is carrying property for compensation or hire.

Recreational Pilot — A recreational pilot may fly no more than one passenger in a light, single-engine aircraft with no more than four seats, during good weather and daylight hours, and unless otherwise authorized, not more than 50 miles from his or her home airport.

Sport Pilot — A sport pilot may operate a light-sport aircraft under a limited set of flight conditions. The certificate does not require an FAA medical examination, but the pilot can carry a driver's license as proof of medical competence. Holders of a sport pilot certificate may fly an aircraft with a standard airworthiness certificate if the aircraft meets the definition of a light-sport aircraft.

Private Pilot — A private pilot may carry passengers in any aircraft. The private pilot may not act as pilot-in-command of an aircraft that is carrying passengers for compensation or hire or act as pilot-in-command of an aircraft that is being operated for compensation or hire (such as an aircraft hired to conduct pipeline patrol but carrying no passengers).

Commercial Pilot — A commercial pilot may act as pilot-in-command of an aircraft that is carrying passengers for compensation or hire, and as pilot-in-command of an aircraft that is being operated for compensation or hire, but not as pilot-in-command of an aircraft in air carrier service.

Airline Transport Pilot — An airline transport pilot may act as pilot-in-command of an aircraft in air carrier service.

CHAPTER 7

Airports and Aeronautical Facilities

7.1 Airports by Country, Europe (2010–2014 Estimates)

Country	Airports with Paved Runways						Airports with Unpaved Runways						Heliports
	Total Airports	Over 10,000 ft	8,000 ft to 10,000 ft	5,000 ft to 8,000 ft	3,000 ft to 5,000 ft	Under 3,000 ft	Total Airports	Over 10,000 ft	8,000 ft to 10,000 ft	5,000 ft to 8,000 ft	3,000 ft to 5,000 ft	Under 3,000 ft	
Albania	**4**	-	3	1	-	-	**1**	-	-	-	1	-	**1**
Andorra	**-**	-	-	-	-	-	**-**	-	-	-	-	-	**-**
Armenia	**10**	2	2	4	2	-	**1**	-	-	-	1	-	**-**
Austria	**24**	1	5	1	4	13	**28**	-	-	1	3	24	**1**
Azerbaijan	**30**	5	5	13	4	3	**7**	-	-	-	-	7	**1**
Belarus	**33**	1	20	4	1	7	**32**	1	-	1	2	28	**1**
Belgium	**27**	6	9	2	1	9	**18**	-	-	-	-	16	**1**
Bosnia-Herz	**7**	-	4	1	-	2	**18**	-	-	1	6	11	**6**
Bulgaria	**124**	2	17	15	-	90	**78**	-	-	-	6	72	**2**
Croatia	**24**	2	6	3	3	10	**45**	-	-	1	6	38	**1**
Cyprus	**13**	-	6	3	3	1	**2**	-	-	-	-	2	**9**
Czech Rep.	**41**	2	9	12	2	16	**87**	-	-	1	26	60	**1**
Denmark	**28**	2	7	4	12	3	**61**	-	-	-	2	59	**-**
Estonia	**13**	2	8	2	1	-	**5**	-	-	1	1	3	**1**
Finland	**75**	3	26	10	21	15	**73**	-	-	-	3	70	**-**
France	**297**	14	26	98	83	76	**176**	-	-	-	67	109	**1**
Georgia	**18**	1	7	3	5	2	**4**	-	-	1	2	1	**-**
Germany	**322**	14	48	60	70	130	**219**	-	-	2	32	185	**2**
Greece	**67**	6	15	19	18	9	**15**	-	-	-	2	13	**9**
Hungary	**20**	2	6	5	6	1	**21**	-	-	2	8	11	**3**
Iceland	**6**	1	-	3	2	-	**93**	-	-	3	27	63	**-**
Ireland	**16**	1	1	4	5	5	**23**	-	-	-	2	21	**-**
Italy	**99**	9	31	18	29	12	**31**	-	-	1	11	19	**5**
Latvia	**19**	1	3	5	3	7	**23**	-	-	-	-	23	**1**
Liechtenstein	**-**	-	-	-	-	-	**-**	-	-	-	-	-	**-**
Lithuania	**26**	3	1	7	2	13	**55**	1	-	-	2	52	**-**
Luxembourg	**1**	1	-	-	-	-	**1**	-	-	-	-	1	**1**
Macedonia	**10**	-	2	-	-	8	**4**	-	-	-	1	3	**-**
Malta	**1**	1	-	-	-	-	**-**	-	-	-	-	-	**2**
Moldova	**5**	1	2	2	-	-	**2**	-	-	-	1	1	**-**
Monaco	**-**	-	-	-	-	-	**-**	-	-	-	-	-	**1**
Montenegro	**5**	-	2	1	1	1	**1**	-	-	-	1	-	**1**
Netherlands	**20**	2	10	2	5	1	**7**	-	-	-	3	4	**1**
Norway	**67**	1	12	11	19	24	**31**	-	-	-	6	25	**1**
Poland	**86**	5	29	37	9	6	**39**	-	-	1	17	21	**6**
Portugal	**43**	5	7	8	13	10	**22**	-	-	-	1	21	**-**
Romania	**26**	4	10	11	-	1	**27**	-	-	-	6	21	**4**
Serbia	**11**	2	3	3	3	-	**19**	-	-	1	10	8	**2**
Slovakia	**19**	2	2	3	3	9	**18**	-	-	-	10	8	**1**
Slovenia	**7**	1	1	1	3	1	**9**	-	-	1	3	5	**-**
Spain	**98**	18	12	19	25	24	**54**	-	-	2	14	38	**10**
Sweden	**149**	3	12	74	23	37	**81**	-	-	-	5	76	**2**
Switzerland	**41**	3	2	13	6	17	**23**	-	-	-	-	23	**1**
Turkey	**89**	16	35	17	17	4	**9**	-	-	1	4	4	**20**
Ukraine	**108**	13	42	22	3	28	**79**	-	-	5	5	69	**9**
United Kingdom	**272**	7	31	93	76	65	**190**	-	-	2	25	163	**9**
Europe Total	**2,401**	165	479	614	483	660	**1,732**	2	-	28	322	1,378	**137**
United States	**5,054**	189	235	1,478	2,249	903	**8,459**	1	6	140	1,552	6,760	**5,287**

Source: CIA World Factbook

7.2 U.S. Civil and Joint Use Airports, Heliports, and Seaplane Bases on Record by Type of Ownership (2010)

State or Territory	State or Territory Total	Public Use		Civil Private Use Landing Facilities							Military-Only Use
		Total	Part 139	Total	Airports	Heliports	Seaplane Bases	Other			
								Gliderports	Balloon Ports	Ultralight Flightparks	
Grand Total	**19,750**	**5,178**	**559**	**14,120**	**8,405**	**5,425**	**290**	**31**	**13**	**134**	**274**
United States – Total	**19,729**	**5,168**	**551**	**14,111**	**8,403**	**5,418**	**290**	**31**	**13**	**134**	**272**
Alabama	**281**	98	10	172	87	81	4	-	-	-	11
Alaska	**734**	408	26	307	245	38	24	-	-	-	19
American Samoa	**4**	3	3	1	1	-	-	-	-	-	-
Arizona	**314**	79	14	219	107	112	-	2	-	6	8
Arkansas	**307**	99	9	199	118	81	-	2	-	4	3
California	**960**	257	36	671	263	404	4	3	-	1	28
Colorado	**449**	76	16	365	186	179	-	1	1	1	5
Connecticut	**146**	23	5	122	35	82	5	-	-	1	-
Delaware	**42**	11	1	30	21	9	-	-	-	-	1
District of Columbia	**20**	3	2	13	-	13	-	-	-	-	4
Florida	**857**	127	25	697	370	289	38	2	-	5	26
Georgia	**461**	110	10	339	227	110	2	1	-	1	10
Guam	**3**	1	1	1	-	1	-	-	-	-	1
Hawaii	**50**	14	7	30	14	16	-	-	-	-	6
Idaho	**280**	119	7	158	108	49	1	-	-	2	1
Illinois	**788**	115	17	665	413	247	5	2	-	5	1
Indiana	**610**	107	12	487	348	123	16	-	-	11	5
Iowa	**289**	121	8	162	79	83	-	-	-	3	3
Kansas	**383**	141	10	238	203	35	-	1	1	-	2
Kentucky	**223**	60	7	157	95	62	-	-	-	4	2
Louisiana	**480**	75	9	381	150	219	12	-	-	20	4
Maine	**175**	68	6	104	64	17	23	-	-	2	1
Maryland	**226**	37	3	182	111	67	4	-	-	-	7
Massachusetts	**241**	40	8	198	39	142	17	-	1	1	1
Michigan	**467**	228	20	236	142	89	5	-	-	2	1
Midway Atoll	**2**	1	1	1	1	-	-	-	-	-	-
Minnesota	**469**	154	9	313	203	59	51	-	-	1	1
Mississippi	**244**	80	11	157	107	50	-	-	-	1	6
Missouri	**518**	132	11	380	251	128	1	-	-	3	3
Montana	**258**	121	15	134	102	31	1	-	-	1	2
N. Mariana Islands	**11**	5	3	6	-	6	-	-	-	-	-
Nebraska	**244**	86	9	156	122	34	-	-	-	-	2
Nevada	**125**	49	5	69	43	26	-	1	-	1	5
New Hampshire	**139**	25	3	114	28	79	7	-	-	-	-
New Jersey	**314**	46	4	256	54	196	6	-	5	-	7
New Mexico	**174**	61	9	107	81	26	-	-	-	1	5
New York	**603**	148	24	448	263	175	10	2	1	3	1
North Carolina	**429**	112	15	300	212	88	-	1	1	4	11
North Dakota	**281**	89	8	190	175	15	-	-	-	-	2
Ohio	**729**	170	13	554	344	209	1	2	1	1	1
Oklahoma	**390**	140	4	240	160	80	-	-	-	4	6
Oregon	**420**	97	10	322	231	90	1	1	-	-	-
Pennsylvania	**821**	132	16	662	316	339	7	2	-	18	7
Puerto Rico	**52**	12	4	39	6	31	2	-	-	-	1
Rhode Island	**31**	8	1	22	3	17	2	-	1	-	-
South Carolina	**196**	68	8	119	86	31	2	1	-	3	5
South Dakota	**178**	74	7	103	70	33	-	-	-	-	1
Tennessee	**311**	81	8	226	124	101	1	-	-	2	2
Texas	**2,006**	391	31	1,578	1,050	528	-	6	-	9	22
Utah	**142**	46	9	93	44	49	-	-	-	-	3
Vermont	**81**	16	2	65	45	14	6	-	-	-	-
Virgin Islands	**8**	2	2	6	-	4	2	-	-	-	-
Virginia	**427**	66	7	340	213	125	2	1	1	1	18
Wake Island	**1**	-	-	-	-	-	-	-	-	-	1
Washington	**552**	137	11	403	240	157	6	-	-	3	9
West Virginia	**120**	35	8	83	38	35	10	-	-	1	1
Wisconsin	**565**	133	9	422	315	95	12	-	-	8	2
Wyoming	**119**	41	10	78	52	26	-	-	-	-	-

U.S. total does not include U.S. territories. The state public data also includes 1 G in AZ, 1 U in IL, 1 B in MI, 1 G and 1 U in PA, 2 G in TN, and 1 U in WA.

Source: FAA Airport Engineering Division

7.3 U.S. Airports Ranked by Number of General Aviation Operations at Tower (2015)

Rank 2015	Facility	Airport Name and State	General Aviation Operations					Total Airport Operations	Total GA Operations	GA as % of Total	Tower Operations
			IFR GA		VFR GA		Local Civil GA				
			Itinerant	Overflight	Itinerant	Overflight					
1	DVT	Phoenix Deer Valley, AZ	8,008	1,018	124,223	8,399	231,753	369,759	373,401	98.4%	379,616
2	APA	Centennial Airport, CO	41,635	38	91,420	6,002	147,668	313,282	286,763	89.2%	321,517
3	LGB	Long Beach, CA	24,322	518	86,096	18,687	148,424	290,277	278,047	89.6%	310,263
4	PRC	Ernest A. Love Field, AZ	2,406	20	76,291	822	188,744	271,372	268,283	98.4%	272,535
5	TMB	Kendall-Tamiami Executive Airport, FL	29,686	301	113,439	4,315	116,560	262,166	264,301	99.0%	267,027
6	SEE	Gillespie Field, CA	12,341	248	72,605	4,682	139,641	225,302	229,517	99.5%	230,597
7	CHD	Chandler Municipal Airport, AZ	1,919	532	78,202	4,922	136,853	218,791	222,428	98.6%	225,600
8	MYF	Montgomery Field Airport, CA	22,510	170	96,310	10,442	91,245	213,896	220,677	98.0%	225,214
9	VNY	Van Nuys, CA	36,042	1,432	92,335	21,996	67,474	210,917	219,279	92.6%	236,710
10	DAB	Daytona Beach, FL	26,765	354	71,384	3,047	111,795	297,678	213,345	70.6%	302,362
11	VRB	Vero Beach Municipal Airport, FL	25,569	148	73,811	2,527	107,748	210,974	209,803	98.2%	213,736
12	FFZ	Falcon Field, AZ	2,629	63	46,828	7,645	149,464	250,725	206,629	79.3%	260,664
13	GFK	Grand Forks Int'l, ND	6,566	9	6,569	283	187,637	298,524	201,064	67.2%	299,044
14	FRG	Republic Airport, NY	13,947	199	83,394	4,785	89,016	197,524	191,341	91.6%	208,864
15	SFB	Sanford-Orlando, FL	9,484	24	16,031	1,244	164,498	293,605	191,281	64.8%	295,006
16	HWO	North Perry Airport, FL	3,008	4,764	55,645	12,340	112,600	171,550	188,357	98.0%	192,198
17	SNA	John Wayne-Orange County, CA	33,099	801	63,055	10,166	78,835	275,459	185,956	64.4%	288,562
18	RVS	Richard Lloyd Jones, OK	15,326	79	56,091	1,365	112,894	186,764	185,755	98.2%	189,116
19	HIO	Portland-Hillsboro Airport, OR	14,225	94	56,919	3,877	110,446	186,402	185,561	97.4%	190,480
20	CNO	Chino, CA	13,583	1,253	54,677	10,280	100,488	170,958	180,281	98.6%	182,914
21	PAO	Palo Alto Airport, CA	5,198	2,254	61,531	6,119	103,663	171,620	178,765	96.1%	186,113
22	IWA	Phoenix-Mesa Gateway Airport, AZ	13,696	255	38,314	5,874	115,040	214,409	173,179	77.6%	223,178
23	PMP	Pompano Beach Airpark, FL	5,762	8,874	44,246	18,134	90,302	140,716	167,318	94.1%	177,737
24	DTO	Denton Municipal Airport, TX	9,659	12	63,556	2,342	89,852	164,797	165,421	98.9%	167,208
25	PUB	Pueblo Memorial Airport, CO	6,180	11	57,115	1,565	95,016	170,889	159,887	92.5%	172,890
26	FXE	Fort Lauderdale Executive Airport, FL	36,574	372	77,923	11,790	31,957	160,065	158,616	91.7%	172,885
27	CMA	Camarillo Airport, CA	13,004	5,488	61,871	6,093	68,342	147,020	154,798	95.0%	162,988
28	FPR	Saint Lucie Country Int'l Airport, FL	21,648	203	49,709	2,414	79,604	152,698	153,578	98.8%	155,491
29	EVB	New Smyrna Beach Municipal, FL	8,087	155	46,083	3,276	94,679	150,608	152,280	98.8%	154,154
30	RHV	Reid-Hillview, CA	2,183	4,546	53,678	4,217	87,082	143,663	151,706	82.0%	184,989
31	SDL	Scottsdale Airport, AZ	30,221	102	47,060	8,609	54,158	147,753	140,150	89.0%	157,457
32	BFI	Boeing Field, King County Airport, WA	27,761	1,400	56,519	14,303	39,770	165,571	139,753	62.8%	222,488
33	HWD	Hayward Executive Airport, CA	8,020	7,408	41,663	11,176	67,874	119,982	136,141	71.9%	189,245
34	OPF	Opa-Locka Executive Airport, FL	36,465	6	40,053	9,980	47,859	143,088	134,363	87.6%	153,306
35	TOA	Zamperini Field Airport, CA	8,712	218	54,986	15,082	55,011	119,620	134,009	98.4%	136,246
36	VGT	North Las Vegas Airport, NV	9,360	309	48,609	3,118	70,908	135,687	132,304	93.8%	141,018
37	TTD	Portland-Troutdale Airport, OR	1,680	26	33,551	2,667	93,284	129,033	131,208	98.9%	132,693
38	PDK	DeKalb-Peachtree Airport, GA	46,835	321	42,122	8,924	30,427	138,254	128,629	85.2%	150,996
39	FTW	Fort Worth Meacham Interntional Airport, TX	24,602	982	32,929	9,970	59,308	125,984	127,791	90.9%	140,619
40	CRQ	McClellan-Palomar Airport, CA	31,810	198	44,042	4,072	44,506	131,217	124,628	90.3%	138,066
41	RNM	Ramona Airport, CA	1,642	0	29,602	9,462	82,979	115,171	123,685	99.2%	124,675
42	XFL	Flagler County Airport, FL	4,219	1	31,302	918	87,132	125,191	123,572	97.9%	126,182
43	BUR	Bob Hope Airport, CA	13,272	5,069	24,025	50,029	28,612	127,977	121,007	65.1%	185,852
44	BJC	Rocky Mountain Metropolitan Airport, CO	13,489	316	40,975	3,739	62,272	125,469	120,791	93.0%	129,907
45	RAL	Riverside Municipal Airport, CA	8,262	5,919	39,073	7,832	58,636	109,945	119,722	96.4%	124,129
46	LVK	Livermore Municipal Airport, CA	7,756	24	45,381	3,555	62,930	117,708	119,646	98.6%	121,325
47	SGJ	Northeast Florida Regional Airport, FL	12,409	8	43,223	1,407	62,127	129,338	119,174	90.6%	131,544
48	PTK	Oakland Country International Airport, MI	24,906	308	41,101	2,532	50,291	126,159	119,138	92.2%	129,277
49	CRG	Jacksonville Executive Airport at Craig, FL	19,820	147	32,657	1,601	64,535	128,425	118,760	84.7%	140,169
50	EMT	El Monte Airport, CA	3,250	232	35,507	15,947	61,603	100,731	116,539	96.1%	121,282

General aviation operations are defined by the FAA based on the traffic operations counted in the OPSNET.
Total operations include general aviation operations as well as commercial and military operations.
GA does not include FAR Part 135 on-demand operations in this table.

Source: FAA Operations Network (OPSNET)

7.4 FAA Air Route Facilities and Services (1972–2015)

Year	VOR VORTAC	Non-Directional Beacons	Air Route Traffic Control Centers	Air Route Traffic Control Towers	Flight Service Stations	International Flight Service Stations	Instrument Landing Systems	WAAS-Enabled Procedures	Airport Surveillance Radar	ADS-B Radios (IOC)
1972	991	706	27	355	324	7	403	n/a	125	0
1973	995	739	27	403	315	7	467	n/a	142	0
1974	1,000	793	26	417	320	7	490	n/a	156	0
1975	1,011	848	25	487	321	7	580	n/a	177	0
1976	1,020	920	25	488	321	7	640	n/a	175	0
1977	1,021	959	25	495	319	7	678	n/a	182	0
1978	1,020	988	25	494	319	6	698	n/a	185	0
1979	1,028	1,015	25	499	318	6	753	n/a	192	0
1980	1,037	1,055	25	502	317	6	796	n/a	192	0
1981	1,033	1,123	25	501	316	6	840	n/a	199	0
1982	1,029	1,143	25	492	316	6	884	n/a	197	0
1983	1,032	1,183	25	494	316	5	934	n/a	197	0
1984	1,035	1,211	25	497	310	5	955	n/a	197	0
1985	1,039	1,222	25	500	302	4	968	n/a	198	0
1986	1,043	1,239	25	686	293	3	977	n/a	312	0
1987	1,039	1,212	25	500	302	4	968	n/a	312	0
1988	1,043	1,239	25	686	293	3	977	n/a	311	0
1989	1,046	1,263	25	686	255	3	1,100	n/a	312	0
1990	1,045	1,271	25	686	235	3	1,120	n/a	311	0
1991	1,045	1,295	24	694	192	3	1,114	n/a	318	0
1992	1,044	1,314	24	691	179	3	1,177	n/a	312	0
1993	1,046	1,263	24	686	255	3	1,100	n/a	312	0
1994	1,045	1,271	24	686	235	3	1,120	n/a	311	0
1995	1,045	1,295	24	694	192	3	1,114	n/a	318	0
1996	1,044	1,314	24	691	179	3	1,177	n/a	312	0
1997	1,041	1,344	24	684	135	3	1,231	n/a	310	0
1998	1,039	1,348	24	683	128	3	1,238	n/a	307	0
1999	1,041	1,320	24	680	75	3	1,327	n/a	295	0
2000	993	1,199	25	663	75	3	1,370	n/a	297	0
2001	1,116	1,675	24	678	76	3	1,388	n/a	292	0
2002	n/a	n/a	21	n/a	76	3	n/a	n/a	n/a	0
2003	n/a	n/a	21	n/a	76	3	n/a	n/a	n/a	0
2004	1,119	1,685	21	688	76	3	1,473	n/a	227	0
2005	1,111	1,613	21	693	76	3	1,490	n/a	226	0
2006	n/a	n/a	21	494	76	n/a	n/a	n/a	n/a	0
2007	n/a	n/a	21	499	76	n/a	n/a	n/a	n/a	0
2008	n/a	n/a	21	503	4	n/a	n/a	n/a	n/a	n/a
2009	n/a	n/a	21	508	4	n/a	n/a	n/a	n/a	n/a
2010	n/a	n/a	21	508	4	n/a	n/a	n/a	n/a	202
2011	n/a	n/a	21	512	4	n/a	n/a	11,828	n/a	339
2012	n/a	n/a	22	514	4	n/a	n/a	12,876	n/a	440
2013	967	n/a	22	516	4	n/a	n/a	13,102	n/a	556
2014	967	n/a	22	516	4	n/a	n/a	13,554	230	634
2015	957	n/a	22	517	4	n/a	n/a	13,844	230	634

The FAA stopped publishing the "Air Traffic Factbook" in 2008. GAMA is working to backfill missing data.
Air Traffic Control data shows federal, non-federal, and military through 2005, while 2006 through 2011 are FAA and contract.

Honolulu control facility as well as San Juan and Guam CERAP not included in ARTCC data.
ADS-B radios only lists those that have reached Initial Operating Capability (IOC). The 2010 and 2012 figures are from November. Figures from other years are from December.
WAAS-capable approach procedures include LNAV, LNAV/VNAV, LPV, LP procedures, and GPS stand-alone procedures, of which 3,613 are LPV in the 2015 data.

Source: FAA Air Traffic Organization

7.5 Airports by Type (2001–2011)

Year	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Total Civil Public Use Airports	**5,294**	**5,286**	**5,286**	**5,288**	**5,270**	**5,233**	**5,221**	**5,202**	**5,178**	**5,175**	**5,172**
Civil Public Use Part 139	635	633	628	599	575	604	565	560	559	551	547
Civil Public Use Non-Part 139	n/a	n/a	n/a	n/a	n/a	n/a	4,556	4,642	4,619	4,624	4,625
Civil Public Use Abandoned	26	16	19	10	14	27	18	16	18	14	20
Newly Established Public Use	n/a	n/a	n/a	n/a	n/a	n/a	9	3	5	16	6
Total Civil Private Use Airports	**14,062**	**14,286**	**14,295**	**14,532**	**14,584**	**14,757**	**14,839**	**14,451**	**14,298**	**14,353**	**14,339**
Civil Private Use Airports Abandoned	220	121	214	117	115	133	297	461	360	121	183
Newly Established Private Use	n/a	n/a	n/a	n/a	n/a	n/a	274	151	214	212	20
Military Airports	75	75	73	57	n/a	n/a	261	277	274	274	271
Total Airports by Type	**19,356**	**19,572**	**19,581**	**19,820**	**19,854**	**19,983**	**20,341**	**19,930**	**19,750**	**19,802**	**19,782**
Airports	n/a	n/a	n/a	n/a	n/a	n/a	13,822	13,589	13,494	13,473	13,450
Heliports	n/a	n/a	n/a	n/a	n/a	n/a	5,708	5,568	5,571	5,650	5,686
Seaplane Bases	n/a	n/a	n/a	n/a	n/a	n/a	527	503	497	496	497
Gliderports	n/a	n/a	n/a	n/a	n/a	n/a	35	35	35	35	35
Stolports	n/a	n/a	n/a	n/a	n/a	n/a	87	82	n/a	n/a	n/a
Balloon Ports	n/a	n/a	n/a	n/a	n/a	n/a	15	14	14	13	13
Ultralight Flightparks	n/a	n/a	n/a	n/a	n/a	n/a	147	139	139	135	131

The category "stolport" was eliminated in 2009.
The data is as of December 31 for the years listed.

Certificated airports service air carrier operations with aircraft seating more than 9 passengers (Part 139).

Source: FAA Administrator's Factbook

CHAPTER 8

Safety and Accident Statistics

8.1 U.S. General Aviation Accidents, Fatal Accidents, and Fatalities (1940–2015)

Year	Accidents		Accidents		Fatalities		Flight Hours	Rate	
	All	Excluded	Fatal	Excluded	Total	Aboard		All	Fatal
1940	3,471	n/a	232	n/a	n/a	n/a	3,202,000	108.40	7.30
1941	4,252	n/a	217	n/a	n/a	n/a	4,462,000	95.30	4.90
1942	3,324	n/a	143	n/a	n/a	n/a	3,790,000	87.70	3.80
1943	3,871	n/a	167	n/a	n/a	n/a	-	-	-
1944	3,343	n/a	169	n/a	n/a	n/a	-	-	-
1945	4,652	n/a	322	n/a	n/a	n/a	-	-	-
1946	7,618	n/a	690	n/a	n/a	n/a	9,792,000	77.80	7.00
1947	9,253	n/a	882	n/a	n/a	n/a	16,348,000	56.60	5.30
1948	7,850	n/a	850	n/a	n/a	n/a	15,154,000	51.80	5.60
1949	5,459	n/a	562	n/a	n/a	n/a	11,051,000	49.40	5.00
1950	4,505	n/a	499	n/a	n/a	n/a	9,667,000	46.60	5.10
1951	3,824	n/a	441	n/a	n/a	n/a	8,460,000	45.20	5.20
1952	3,657	n/a	401	n/a	n/a	n/a	8,200,000	44.60	4.80
1953	3,232	n/a	387	n/a	n/a	n/a	8,528,000	37.90	4.50
1954	3,381	n/a	393	n/a	n/a	n/a	8,968,000	37.70	4.30
1955	3,343	n/a	384	n/a	n/a	n/a	9,524,000	35.10	4.00
1956	3,474	n/a	356	n/a	n/a	n/a	10,218,000	34.00	3.40
1957	4,200	n/a	438	n/a	n/a	n/a	10,938,000	38.40	4.00
1958	4,584	n/a	384	n/a	n/a	n/a	12,593,000	36.40	3.10
1959	4,576	n/a	450	n/a	n/a	n/a	12,890,000	35.50	3.50
1960	4,793	n/a	429	n/a	n/a	n/a	13,132,000	36.50	3.27
1961	4,625	n/a	426	n/a	n/a	n/a	13,603,000	34.00	3.13
1962	4,840	n/a	430	n/a	n/a	n/a	14,491,000	33.40	2.97
1963	4,690	n/a	482	n/a	n/a	n/a	15,129,000	31.00	3.19
1964	5,069	n/a	526	n/a	n/a	n/a	15,742,000	32.20	3.34
1965	5,196	n/a	538	n/a	n/a	n/a	16,707,000	31.10	3.22
1966	5,712	n/a	573	n/a	n/a	n/a	21,000,000	27.20	2.73
1967	6,115	n/a	603	n/a	n/a	n/a	22,156,000	27.60	2.72
1968	4,968	n/a	692	n/a	n/a	n/a	24,117,000	20.60	2.86
1969	4,767	n/a	647	n/a	n/a	n/a	25,356,000	18.80	2.55
1970	4,712	n/a	641	n/a	n/a	n/a	26,033,000	18.10	2.46
1971	4,648	n/a	661	n/a	n/a	n/a	25,538,000	18.20	2.59

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8.1 U.S. General Aviation Accidents, Fatal Accidents, and Fatalities (1940–2015) CONTINUED

Year	Accidents		Accidents		Fatalities		Flight Hours	Rate	
	All	Excluded	Fatal	Excluded	Total	Aboard		All	Fatal
1972	4,256	n/a	695	n/a	n/a	n/a	26,937,000	15.80	2.67
1973	4,255	n/a	723	n/a	n/a	n/a	29,965,000	14.20	2.52
1974	4,234	n/a	689	n/a	n/a	n/a	27,855,000	15.20	2.47
1975	4,001	n/a	636	n/a	n/a	n/a	28,784,000	13.90	2.20
1976	4,023	n/a	662	n/a	n/a	n/a	30,477,000	13.20	2.16
1977	4,083	n/a	663	n/a	n/a	n/a	31,651,000	12.90	2.09
1978	4,218	n/a	721	n/a	n/a	n/a	34,860,000	12.10	2.06
1979	3,625	n/a	636	n/a	n/a	n/a	36,690,000	9.88	1.63
1980	3,597	n/a	622	n/a	n/a	n/a	36,481,000	9.86	1.69
1981	3,502	n/a	654	n/a	n/a	n/a	36,824,000	9.51	1.78
1982	3,233	n/a	591	n/a	1,187	1,170	29,640,000	10.91	1.99
1983	3,075	15	555	5	1,068	1,061	28,673,000	10.67	1.92
1984	3,017	26	545	11	1,042	1,021	29,099,000	10.28	1.84
1985	2,739	11	498	6	956	945	28,322,000	9.63	1.73
1986	2,581	11	474	5	967	879	27,073,000	9.49	1.73
1987	2,495	18	446	7	837	822	26,972,000	9.18	1.62
1988	2,388	13	460	4	797	792	27,446,000	8.65	1.66
1989	2,242	17	432	8	769	766	27,920,000	7.97	1.52
1990	2,242	4	444	1	770	765	28,510,000	7.85	1.55
1991	2,197	8	439	5	800	786	27,678,000	7.91	1.57
1992	2,110	2	450	1	866	864	24,780,000	8.51	1.81
1993	2,064	5	401	4	744	740	22,796,000	9.03	1.74
1994	2,021	3	404	2	730	723	22,235,000	9.08	1.81
1995	2,056	10	412	6	734	727	24,906,000	8.21	1.63
1996	1,908	4	361	0	636	619	24,881,000	7.65	1.45
1997	1,840	5	350	2	631	625	25,591,000	7.17	1.36
1998	1,902	6	364	4	624	618	25,518,000	7.43	1.41
1999	1,905	3	340	1	621	615	29,246,000	6.50	1.16
2000	1,837	7	345	7	596	585	27,838,000	6.57	1.21
2001	1,727	3	325	1	562	558	25,431,000	6.78	1.27
2002	1,716	7	345	6	581	575	25,545,000	6.69	1.33
2003	1,741	4	352	3	633	630	25,998,000	6.68	1.34
2004	1,619	3	314	0	559	559	24,888,000	6.49	1.26
2005	1,671	2	321	1	563	558	23,168,000	7.20	1.38
2006	1,523	2	308	1	706	547	23,963,000	6.35	1.28
2007	1,654	2	288	2	496	491	23,819,000	6.94	1.20
2008	1,568	2	277	0	496	487	22,805,000	6.87	1.21
2009	1,480	3	275	0	479	470	20,862,000	7.08	1.32
2010	1,440	2	271	1	458	455	21,688,000	6.63	1.24
2011	1,470	1	269	0	452	441	21,488,000	6.84	1.24
2012	1,470	1	272	1	437	437	20,881,000	7.04	1.30
2013	1,224	3	222	3	391	386	19,492,000	6.26	1.12
2014	1,213	0	253	0	419	410	19,617,000	6.18	1.29
2015P	1,206	n/a	228	n/a	374	n/a	n/a	n/a	n/a

Source: NTSB, FAA, and GAMA

P = Preliminary
General Aviation as defined by NTSB includes operations under Part 91, Part 91K, Part 125, Part 133, and Part 137 for the purpose of accident statistics.
Excluded "Accidents" and "Fatalities" are suicide/sabotage and stolen/unauthorized events, which are not included in rates.

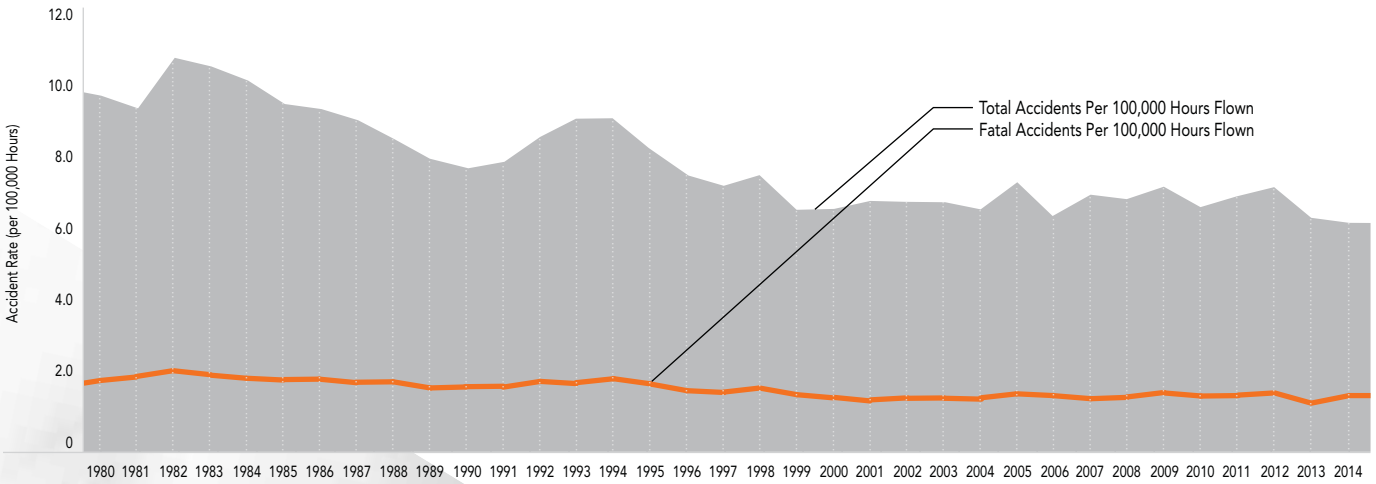
8.2 U.S. On-Demand FAR Part 135 Accidents, Fatal Accidents, and Fatalities (1987–2015)

Year	Accidents		Accidents		Fatalities		Flight Hours	Rate	
	All	Excluded	Fatal	Excluded	Total	Aboard		All	Fatal
1987	96	0	30	0	65	63	2,657,000	3.61	1.13
1988	102	0	28	0	59	55	2,632,000	3.88	1.06
1989	110	0	25	0	83	81	3,020,000	3.64	0.83
1990	107	0	29	0	51	49	2,249,000	4.76	1.29
1991	88	0	28	0	78	74	2,241,000	3.93	1.25
1992	76	0	24	0	68	65	2,844,000	2.67	0.84
1993	69	0	19	0	42	42	2,324,000	2.97	0.82
1994	85	0	26	0	63	62	2,465,000	3.45	1.05
1995	75	0	24	0	52	52	2,486,000	3.02	0.97
1996	90	0	29	0	63	63	3,220,000	2.80	0.90
1997	82	0	15	0	39	39	3,098,000	2.65	0.48
1998	77	0	17	0	45	41	3,802,000	2.03	0.45
1999	74	0	12	0	38	38	3,204,000	2.31	0.37
2000	80	0	22	0	71	68	3,930,000	2.04	0.56
2001	72	0	18	0	60	59	2,997,000	2.40	0.60
2002	60	0	18	0	35	35	2,911,000	2.06	0.62
2003	73	0	18	0	42	40	2,927,000	2.49	0.61
2004	66	0	23	0	64	63	3,238,000	2.04	0.71
2005	65	0	11	0	18	16	3,815,000	1.70	0.29
2006	52	0	10	0	16	16	3,742,000	1.39	0.27
2007	61	0	14	0	43	43	4,033,000	1.51	0.35
2008	58	0	20	0	69	69	3,205,000	1.81	0.62
2009	47	0	2	0	17	14	2,901,000	1.62	0.07
2010	30	0	6	0	17	17	3,113,000	0.96	0.19
2011	50	0	16	0	41	41	3,082,000	1.62	0.52
2012	36	0	8	0	12	12	3,522,000	1.02	0.23
2013	44	0	10	0	25	25	3,384,000	1.30	0.30
2014	35	0	8	0	20	20	3,654,000	0.96	0.23
2015P	37	n/a	7	n/a	27	n/a	n/a	n/a	n/a

P = Preliminary
Excluded "Accidents" and "Fatalities" are suicide/sabotage and stolen/unauthorized events, which are not included in rates.
In 2002, FAA changed its estimate of air taxi activity. The revision was retroactively applied to the years 1992 to present. In 2003, the FAA again revised flight activity estimates for 1999 to 2002.
U.S. air carriers operating under 14 CFR Part 135 were previously referred to as Scheduled and Nonscheduled Services. Current tables now refer to these same air carriers as Commuter Operations and On-Demand Operations, respectively, in order to be consisent with definitions in 14 CFR 119.3 and terminology used in 14 CFR 135.1. On-Demand Part 135 operations encompass charters, air taxis, air tours, or medical services (when a patient is on board).

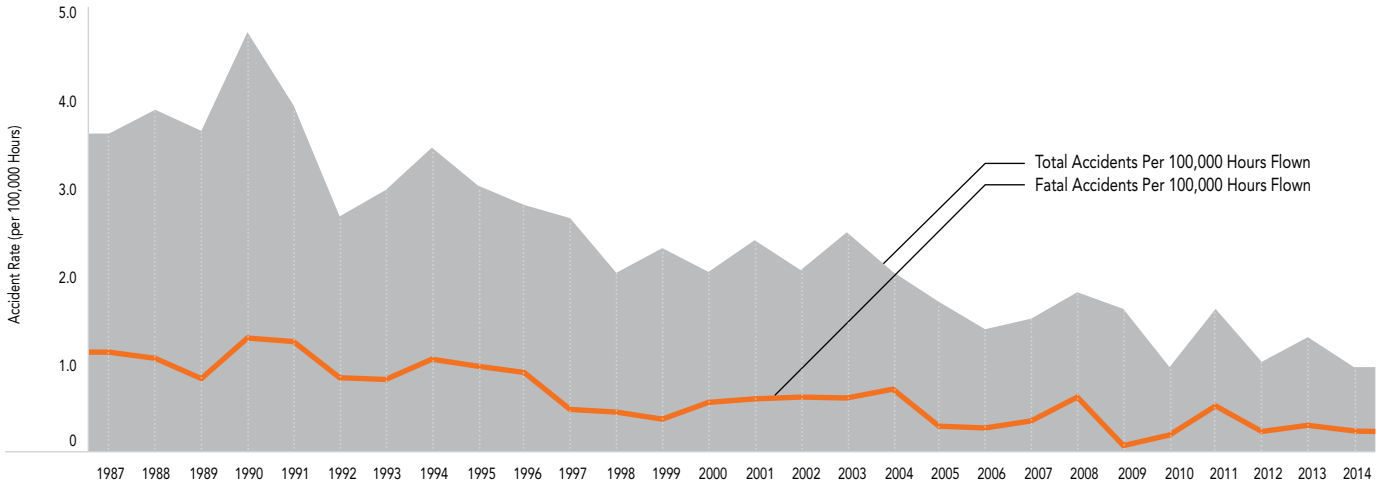
Source: NTSB

FIGURE 8.1 Accident Rates in U.S. General Aviation (1980–2014)



Source: NTSB, FAA, and GAMA

FIGURE 8.2 **Accident Rates in U.S. On-Demand FAR Part 135 Operations (1987–2014)**



Source: NTSB

8.3 European Union General Aviation and Aerial Work Accident Data (2006–2013)

Year	Aircraft with Mass Below 2,250 Kg				Aircraft with Mass Above 2,250 Kg				All Aircraft Accidents	
	Accidents		Fatalities		Accidents		Fatalities		Accidents	
	Total	Fatal	Aboard	Ground	Total	Fatal	Aboard	Ground	Total	Fatal
2006	1,121	151	231	3	36	10	29	-	1,157	161
2007	1,157	142	238	5	30	10	18	1	1,187	152
2008	1,145	140	216	2	32	10	23	1	1,177	150
2009	1,234	163	253	4	19	9	18	-	1,253	172
2010	1,047	129	189	1	31	6	14	-	1,078	135
2011	1,109	169	253	1	34	12	29	-	1,143	181
2012	918	133	226	1	10	2	2	1	995	148
2013	948	128	202	-	15	3	7	-	1,006	139

The European Aviation Safety Agency (EASA) includes aircraft registered in Member States that are balloons, aeroplanes, gliders, gyroplanes, helicopters, microlights, motor gliders, and other aircraft, among general aviation accidents that occurred in general aviation operations and while conducting aerial work. This data does not include general aviation aeroplanes conducting Commercial Air Transport operations.
Data from 2006–2008 does not include Italy, Liechtenstein, Luxembourg, and Slovenia.
Data after 2012 includes aerial work accidents in the "All Aircraft" total data only and is not part of the other columns.

Source: EASA Annual Safety Review

8.4 European Union General Aviation and Aerial Work Accidents (2014)

Year	General Aviation												Commercial								All Aircraft Accidents		
	Aeroplane		Rotorcraft		Glider		Microlight		Balloon		Business Aviation		Aerial Work				Commercial Air Transport						
											Aeroplane		Aeroplane		Rotorcraft		Aeroplane		Rotorcraft				
	Total	Fatal	Total	Fatal	Total	Fatal	Total	Fatal	Total	Fatal	Total	Fatal	Total	Fatal	Total	Fatal	Total	Fatal	Total	Fatal	Total	Fatal	Fatalities
2014	421	53	73	9	195	18	204	30	11	0	3	1	24	5	11	2	n/a	n/a	6	1	948	119	197

EASA has changed how the agency publishes safety statistics. Table 8.4 shows the new format for 2014 while Table 8.3 shows the historical data for 2006–2013. The Commercial Air Transport Aeroplane data provided by EASA does not differentiate between fixed-wing aeroplane operations using general aviation versus larger aircraft and shown as "n/a" in the table.

Source: EASA Annual Safety Review

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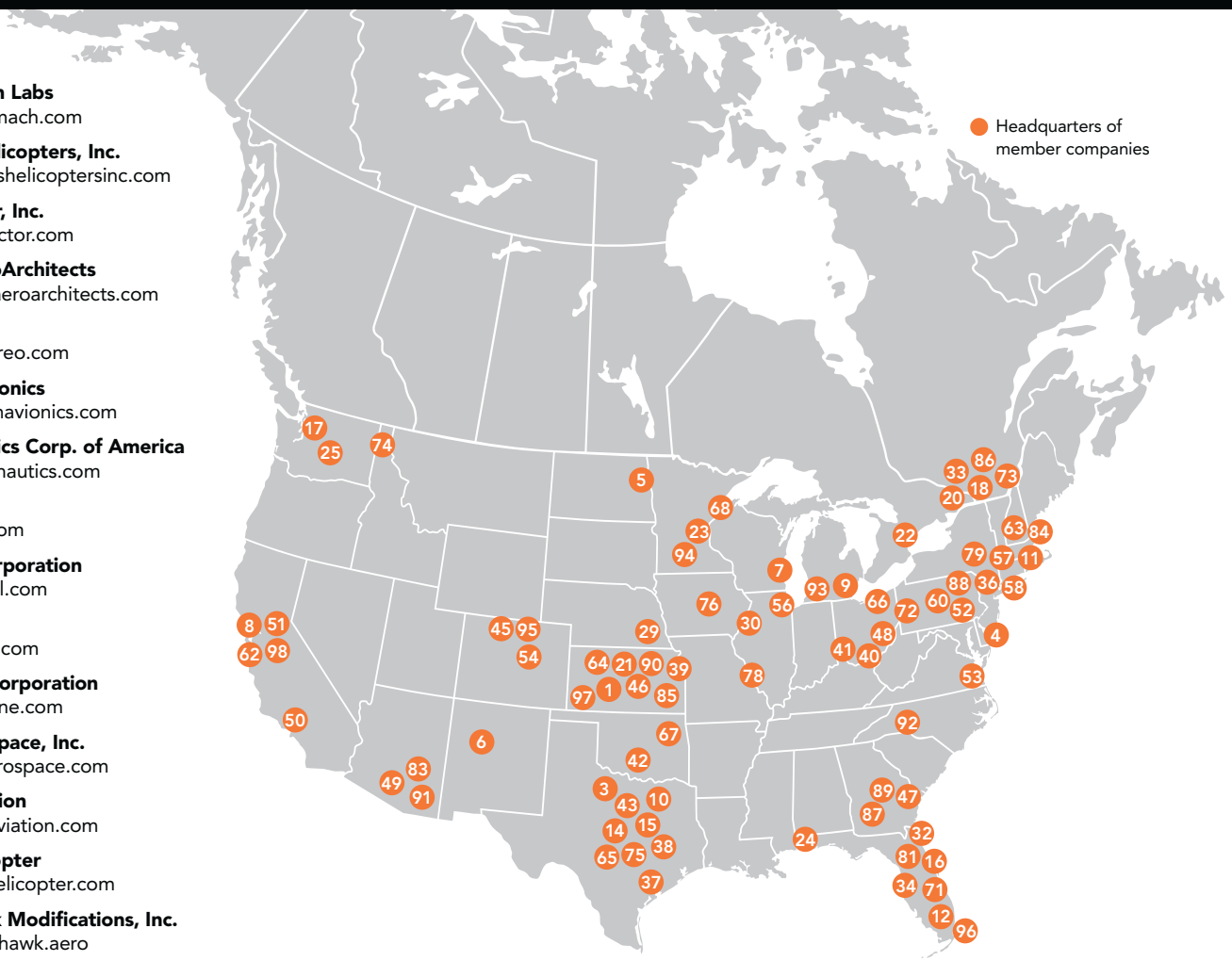

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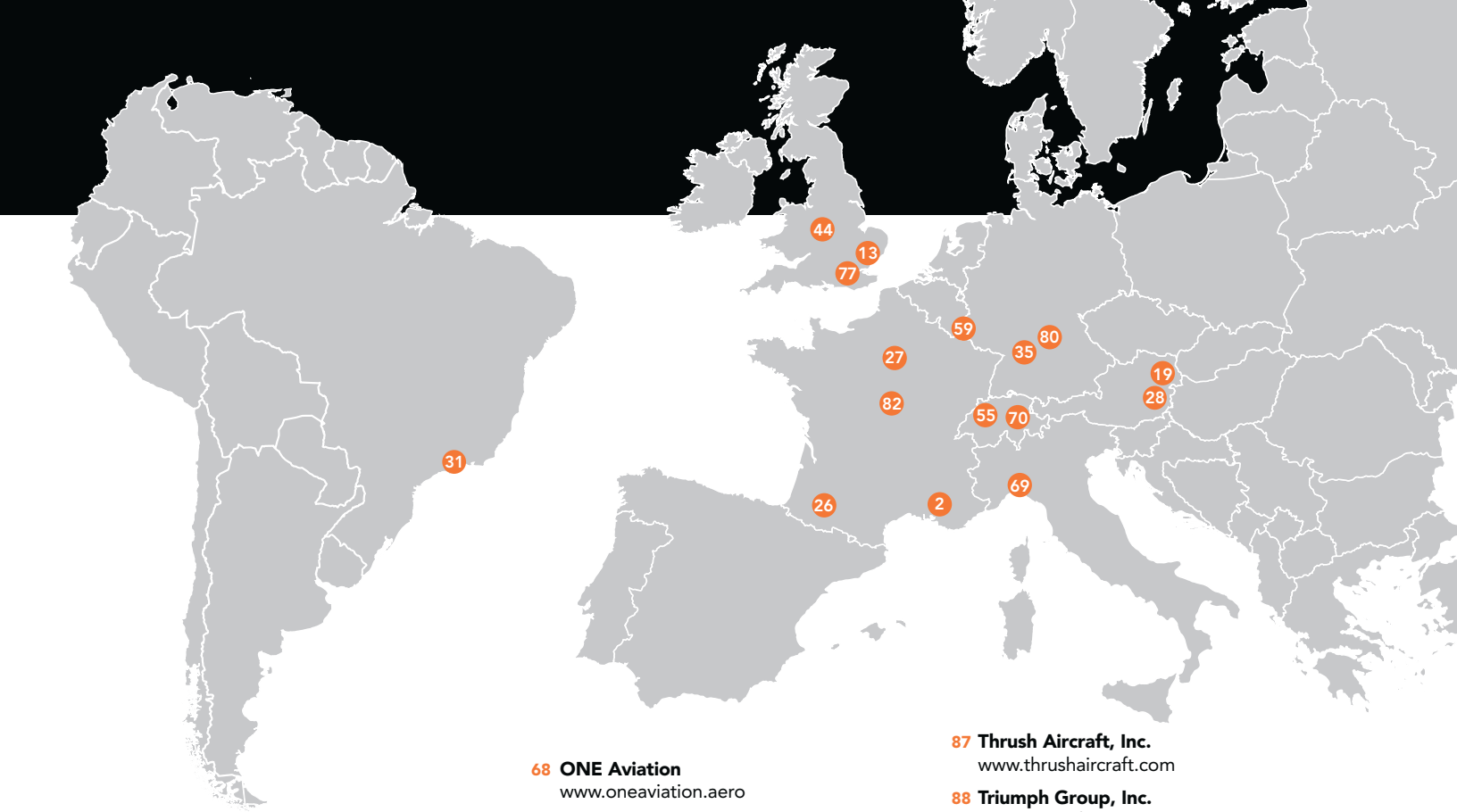

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