



*General Aviation  
Manufacturers Association*



## INDUSTRY REVIEW AND MARKET OUTLOOK FOR 2001





# GENERAL AVIATION MANUFACTURERS ASSOCIATION

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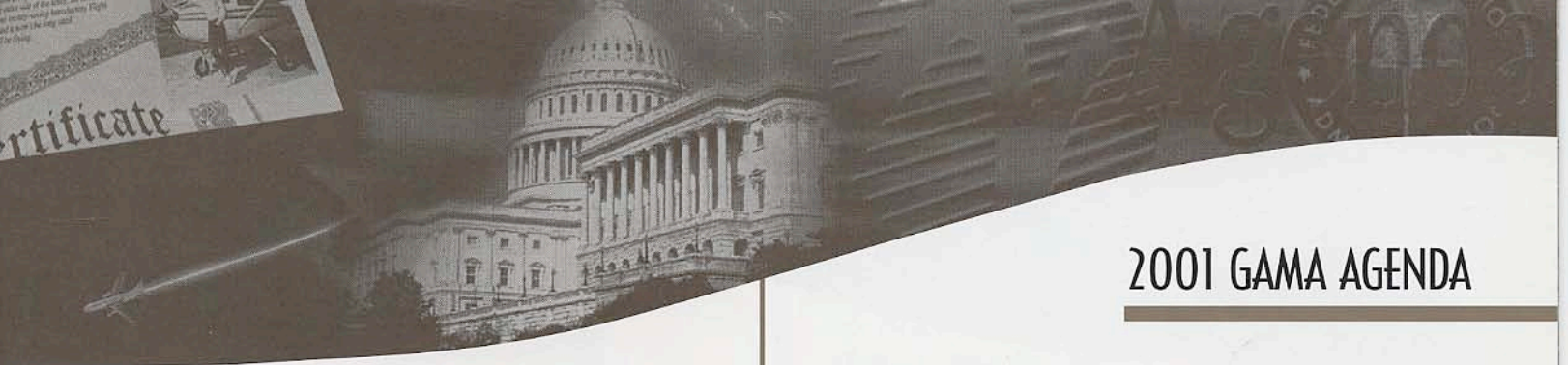
The General Aviation Manufacturers Association (GAMA) is a national trade association representing 50 manufacturers of fixed-wing aircraft, engines, avionics, and components. In addition to building nearly all the general aviation aircraft flying in the United States today, GAMA member companies also operate aircraft fleets, airport fixed-based operations, pilot training and maintenance technician training facilities across the nation.

- General aviation aircraft range from two-seat training aircraft to intercontinental business jets.
- General aviation is estimated to be a \$18 billion industry, generating more than \$64 billion annually in economic activity.
- General aviation exports nearly one-quarter of its production and leads the world in development of new technology aircraft.
- General aviation aircraft fly over 32 million hours (nearly two times the airline flight hours), and carry 166 million passengers annually.
- Approximately 70 percent of all the hours flown by general aviation aircraft are for business and commercial purposes.
- More than 5,400 communities rely exclusively on general aviation for their air transportation needs (scheduled airlines serve about 600).
- Most people learn to fly in a general aviation aircraft.

Headquartered in Washington, DC, GAMA represents the interests of its members before the United States Congress, the Department of Transportation, the Federal Aviation Administration, and other federal and state government agencies directly concerned with the air transportation system. It also maintains close working relationships with other associations representing various facets of the aviation community.

Through its public information and education programs, GAMA promotes better understanding of the air transportation environment and the important role general aviation plays in the national economy and in serving America's transportation needs.





## 2001 GAMA AGENDA

### EXPAND INTERNATIONAL MARKET

Through its International Affairs Committee, GAMA will strive to open new international markets, promote uniform international standards and operating rules, and ensure that US companies have the opportunity to compete on a level international playing field.

### PROTECT ACCESS TO AIRPORTS AND AIRSPACE

As in the past, keeping our nation's airports and airspace open and available to general aviation will be a top priority for GAMA.

### DEFEND GENERAL AVIATION REVITALIZATION ACT

The General Aviation Revitalization Act reversed the downward spiral of general aviation and set the stage for the industry's remarkable resurgence. Making sure that courts interpret and apply this important law as Congress intended will be the primary focus of GAMA's Legal Issues Committee.

### PROMOTE SAFETY

Through its Safety Affairs Committee and its participation in the FAA's Safer Skies initiative, GAMA will continue to apply its energy and resources to the promotion of general aviation safety.

### IMPROVE CERTIFICATION PROCESS

Through its Technical Policy Committee and its position on industry/government working groups, GAMA will work to improve the process through which aviation products are certified.

### FACILITATE AVIATION RESEARCH

GAMA will continue to be the industry leader in facilitating NASA and FAA research programs designed to bring innovative technologies to the general aviation market.

### ASSIST NAS MODERNIZATION EFFORT

Through its Flight Operations Policy Committee, GAMA will assist the Federal Aviation Administration in its efforts to modernize our National Airspace System (NAS) so that it will continue to be the best in the world.

### ADVOCATE BENEFITS OF GA

Through its Public Affairs Committee, GAMA will educate policy makers, opinion leaders and the general public about the vital role general aviation plays in our national economy and air transportation system. We will also continue our efforts with the National Business Aviation Association on our joint advocacy program "No Plane. No Gain."

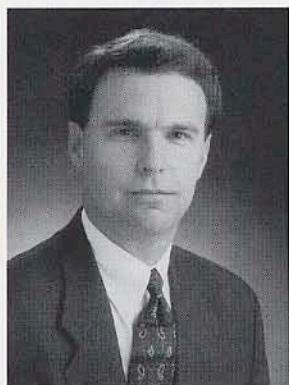
### ENSURE ADEQUATE FAA FUNDING

Last year, GAMA helped lead an industry-wide effort to pass AIR 21, landmark legislation designed to increase the amount of federal funding for aviation. This year, GAMA will work to make sure that AIR 21 is implemented as intended.

### GENERATE NEW PILOTS

New pilots are the lifeblood of general aviation. With that in mind, GAMA will continue its enthusiastic support of BE A PILOT, an industry-wide program designed to educate the public about flying and increase the number of persons learning how to fly.





*“2000 was the sixth straight year in which general aviation shipments increased.”*

## 2000 MARKET REVIEW

by Edward M. Bolen

February 7, 2001

Historians and scientists maintain that 2000 was the last year of the old millennium. The general public, on the other hand, embraced 2000 as the first year of the new millennium.

At a time when Washington is filled with talk about the need to focus on things that unite rather than divide the country, GAMA would like to offer a view of 2000 upon which we should all be able to agree—it was a great year for general aviation.

### TOTAL SHIPMENTS

In 2000 US manufacturers shipped a grand total of 2,816 general aviation airplanes. That is up 12.5 percent from the 2,504 units shipped in 1999.

2000 was the sixth straight year in which general aviation shipments increased. Since passage of the General Aviation Revitalization Act in 1994, we have seen a three-fold increase in airplane shipments.

### PISTON-ENGINE AIRCRAFT

Looking at the shipment numbers in a little more detail we see that a total of 1,913 piston-engine airplanes were shipped last year. That is a 9.4 percent increase over 1999.

Single-engine shipments increased 10.8 percent, from 1,634 airplanes in 1999 to 1,810 in 2000.

Multi-engine piston shipments actually dropped by 11 units, from 114 airplanes in 1999 to 103 in 2000.

### TURBINE-ENGINE AIRCRAFT

Shipments of turbine-engine airplanes also grew in 2000. A total of 903 turbine airplanes were shipped last year. That is a 19.4 percent increase over 1999.





Turboprop shipments increased 13.7 percent from 517 units in 1999 to 588 units in 2000. Turboprop shipments increased 31.8 percent from 239 units in 1999 to 315 units last year.

## TOTAL BILLINGS

Strong shipment numbers usually lead to strong billing numbers. In 2000, the general aviation industry once again set a new all-time record for billings.

Total billings for 2000 were \$8.6 billion. That is up 9.1 percent from 1999.

This is the fifth straight year in which the industry has set a new all time record for billings. Since the early 1990s, billings for new general aviation airplanes have nearly quadrupled.

## EXPORTS

The United States is by far the best market for general aviation. However, we are seeing a continuing worldwide demand for general aviation products.

Last year, the number of airplanes US manufacturers shipped to overseas destinations increased slightly from 562 units in 1999 to 569 units in 2000. Billings for those exports were \$1.8 billion, down 28.6 percent from the previous year.

Overall exports accounted for 20.2 percent of total airplane shipments in 2000 and 20.9 percent of total industry billings.

Looking at the world market, most manufacturers found the European market to be a little softer in 2000 due, at least in part, to the relative weakness of the euro to the dollar.

However, Latin America, Africa, and the Middle East were all rated as strong markets.

Asia is still not much of a market for general aviation but we are seeing signs of progress. GAMA and NBAA are making headway in our efforts to improve general aviation access to Japan. In addition, we saw a noticeable increase last year in the number of Chinese aviation officials visiting the United States to learn about general aviation. We think the Chinese are beginning to understand that general aviation can be a valuable tool in their efforts to open the western part of the country to economic development.

## NEW AIRPLANES

2000 was another exciting year for new airplane models both in terms of deliveries and announcements.

In 2000, Cessna began making deliveries on three new additions to its highly successful Citation family of business jets: the CJ1, the CJ2, and the Encore. The New Piper Aircraft began delivering its sleek new single-engine turboprop—the Malibu Meridian. And we saw deliveries begin on several new piston models including the Commander 115 and the Lancair Columbia 300.

At the NBAA Annual Meeting and Convention in New Orleans, two new business jet models were announced. Gulfstream introduced the GV-SP and Raytheon introduced the Hawker 450.

The announcements at NBAA are in addition to the new airplane announcements that were made during the course of the year by companies like Cirrus, Eclipse, Lancair and Adams.

## PILOT POPULATION

Of course, all these exciting new airplanes need pilots—they are the foundation of general aviation.

Last year the FAA changed the process it uses to track the active pilot population. That change makes it difficult to accurately compare pilot statistics from one year to another. However, all indicators suggest that the pilot population remained stable in 2000.



The good news is that having a stable pilot population is much better than the situation we had in the early 90s when the pilot numbers dropped every year. But the reality is that we still need more pilots than we have today.

In order to address this challenge the BE A PILOT program is set to move to a higher level. Key to that is the recent hiring of Drew Steketee as the program's president and CEO. As many of you know, Drew is an industry veteran with nearly three decades of experience in public relations and public education campaigns.



Under his direction, BE A PILOT will build stronger relations with flight schools, generate greater public awareness of its learn-to-fly offer, and continue a remarkably efficient advertising effort on cable television.

## CORPORATE FLIGHT DEPARTMENTS

While it is critical for the industry to have a strong pilot population, it is also important for us to have U.S. companies opening flight departments and utilizing general aviation as a business tool. According to statistics provided by AvData, Inc., the total number of flight departments in the United States increased by almost 6 percent last year.

Today there are approximately 9,279 flight departments in the United States operating 13,985 general aviation aircraft.



## FRACTIONAL OWNERSHIP PROGRAMS

Fractional ownership programs continue to be a significant factor in the growth of the general aviation industry.

The number of individuals and companies in the United States that own a fractional share of an aircraft increased by nearly 61 percent in 2000, from 1,634 to 2,624.

The number of aircraft in fractional programs grew 39 percent in 2000, from 392 to 546.

GAMA member companies are reporting that approximately 15 percent of their turbine deliveries last year were to fractional programs.

## CHARTER ACTIVITY

Of course, an individual or company does not have to own all or even part of an airplane to enjoy the benefits of general aviation. General aviation airplanes can be rented or chartered.

According to *Air Charter Guide*, charter activity in the United States increased by 12 percent in 2000.

The simultaneous growth in traditional flight departments, fractional programs and charter activity shows that companies and individuals, whether they are general aviation veterans or new to the community, are finding and utilizing the business aviation solution that is most appropriate for their particular transportation need.

## FLIGHT ACTIVITY

As you would expect, general aviation instrument operations at combined FAA and contract tower airports increased last year, up 1.8 percent. General aviation instrument operations have now increased in 6 of the last 7 years, with a total activity gain over that period of nearly 20 percent.

## SAFETY

Perhaps the most positive trend we are seeing in general aviation is that over the past several years while GA activity has been going up, general aviation accidents have been going down.



According to preliminary statistics from the National Transportation Safety Board, last year the total number of general aviation accidents dropped by almost 4 percent to their lowest level in history.

Like most good things, the positive safety trend in general aviation did not just happen. It is the result of considerable effort over a number of years by the general aviation community.

Today, virtually all of the general aviation associations have safety outreach programs. At GAMA, for example, we provide fuel grade decals that have proven effective in decreasing misfueling accidents.

In addition, the industry is continuing its work with the FAA on the Administrator's Safer Skies initiative. We are implementing programs to address controlled flight into terrain and weather-related accidents. We are also beginning a program to reduce runway incursions at congested airports.

It is rewarding for everyone in the general aviation community to see that these safety initiatives are yielding positive results.

## EMPLOYMENT

One of the promises of the General Aviation Revitalization Act was that it would spur the creation of new manufacturing jobs at US companies. It has certainly done that.

Employment was up 6.7 percent at GAMA member companies in 2000. This marks the industry's sixth straight year of employment growth at GAMA's member companies.

## AIRPORTS

If there is an area of disappointment in 2000, it is that we continue to see more general aviation airports closing than opening. Last year, we had a net loss of six public use airports in the United States.

Fortunately, the entire general aviation community recognizes the critical importance of our airport infrastructure and we are actively working both separately and collectively to preserve it.

NBAA has played a leadership role in this area by filing lawsuits to prevent what we believe are unlawful restrictions on business jets at the Van Nuys and Naples airports. GAMA is among those who have joined NBAA in those suits.

AOPA, whose Airport Support Network has proven so instrumental in keeping airports open all across the country, ran a series of advertisements over the holidays on the Weather Channel which used the tag line "America's pilots care about local community airports. You should, too!" Those ads reached over 18 million people.

NATA has released a list of what it believes are the 100 most important GA airports in the country. Among other things, the list is designed to help people understand that their local airport is part of a national system rather than an isolated slab of concrete.



One of the things the general aviation community did last year in passing AIR 21, the legislation that increased the amount of federal funding for airports by 64 percent, was show just how much we can accomplish when we work together. I am confident that by continuing to work together on this key industry effort we will have success in preserving and enhancing our nation's network of general aviation airports.

## CONCLUSION

Looking back at 2000, it is clear it was a wonderful year for general aviation. By virtually every measure the industry did extremely well. In fact, in some ways it could be argued that 2000 was the best year ever for general aviation.







GAMA President Ed Bolen testifies before the House Aviation Subcommittee about future aviation technology with Dr. Bruce Holmes of NASA and Sam Williams, Chairman and CEO of Williams International. 5/00



Clay Jones, President of Rockwell Collins; Ed Stimpson, U.S. Ambassador to ICAO; GAMA President Ed Bolen; and Marshall Larsen, President and COO of BFGoodrich Aerospace at a GAMA reception. 2/00



NTSB Board Chairman Jim Hall and Member John Goglia join GAMA's Board of Directors at a reception in Washington. 8/00



Senator Jim Inhofe (R-OK) talks to GAMA Vice Chairman Ray Siegfried and GAMA President Ed Bolen at the 2000 Annual Industry Review and Outlook Briefing. 2/00



BE A PILOT's Board of Directors meet at NBAA's Annual Convention. Many of GAMA's Board of Directors also serve on the BE A PILOT Board. 10/00



FAA Administrator Jane Garvey, GAMA President Ed Bolen, GAMA Chairman Chuck Suma, and Bob Vilhauer of Boeing Business Jets, discuss industry issues during a break at a GAMA Board of Directors meeting. 2/00



GAMA Chairman Chuck Suma welcomes U.S. Representative Bill Lipinski (D-IL), Ranking Democrat on the House Aviation Subcommittee, to a GAMA Board of Directors Meeting. 8/00





U.S. Senator Jay Rockefeller (D-WV), Ranking Democrat on the Senate Aviation Subcommittee, addresses the GAMA Board of Directors. 2/00



GAMA with a delegation from China who traveled to Oshkosh to learn about general aviation in the United States. 8/00 (Photo by: Hilary Laurensen, EAA)



Senior officials from GAMA and FAA met in Tokyo with Mr. Kenichi Fukaya, Director General of Japan's Civil Aviation Bureau to discuss GA access at airports in Japan. 9/00



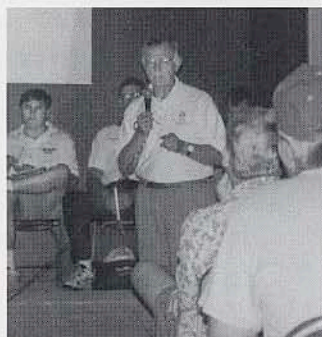
Members of the FAA Management Advisory Committee (MAC) meet with FAA Administrator Jane Garvey and DOT Deputy Secretary Mort Downey. General aviation is represented on the MAC by GAMA President Ed Bolen. 6/00



House Transportation and Infrastructure Chairman Bud Shuster (R-PA) urging support for landmark aviation legislation known as AIR 21. Leaders of the aviation community stand behind Chairman Shuster in support of the legislation. 2/00

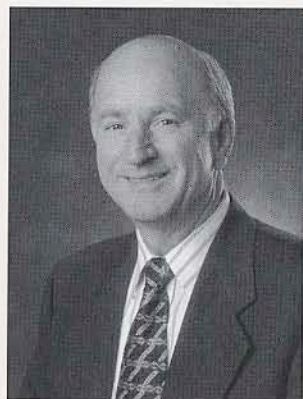


NASA Administrator Dan Goldin views the Williams International exhibit at AirVenture Oshkosh with Gregg Williams and GAMA President Ed Bolen. 8/00 (Photo by: Donna M. Bushman)



GAMA's Vice President of Engineering and Maintenance, Bill Shultz, talks to the industry at AirVenture Oshkosh about aviation fuels. 8/00





*“The appropriate response to delays is to increase—not ration—capacity.”*



## 2001 MARKET OUTLOOK

by Michael A. Smith

February 7, 2001

As the numbers clearly demonstrate, the past several years have indeed been good ones for general aviation, and they pose a very obvious question—can the growth continue?

I would like to share with you GAMA's thoughts on the growth question. I would also like to talk about a change that is taking place in the way general aviation airplanes are being manufactured today. Finally, I want to discuss one of the key challenges facing everyone in aviation—system delays.

### INDUSTRY GROWTH

It would probably be fair to say our country is entering 2001 with greater sense of anxiety about the economy than we have had in the last several years. That anxiety has caused some to wonder what the future might hold in store for general aviation.

Although manufacturers certainly appreciate the role the economy plays in airplane sales, GAMA member companies are confident the growth will continue in 2001.

One reason for our optimism is that virtually all of GAMA's members are entering the year with airplane orders that far exceed their current year's production capacity, and their order books are continuing to grow.

In addition, deliveries will begin this year on two new models of aircraft—the Premier I by Raytheon and the BBJ2 by Boeing Business Jets. We expect these new deliveries to have a positive impact on the annual shipment and billing numbers.

At GAMA, we also think the growth will continue because we believe the business case for general aviation remains strong.

One of the things we find when we talk to our customers is that companies are using business aviation to be more effective and efficient. They are also using it because it provides a degree of safety, security, reliability and flexibility not available in any other mode of transportation.



These advantages of business aviation will not go away even if the economy slows. In fact, some might argue that the pressure a slowing economy would place on companies to increase their productivity could actually cause an increase in the utilization of business aviation.

In the past, shareholders or financial analysts might have questioned the use of business aviation in a slowing economy. But that attitude has largely changed, and a lot of the credit goes to NBAA and GAMA for the success we have had with our joint advocacy program "No Plane. No Gain."

You will recall when the program was launched in 1993, Arthur Andersen's *Business Aircraft Performance Study* found companies that utilized business aviation returned more to shareholders than companies that did not. The study has just been updated and Arthur Andersen has found what was true in 1993 is still true today—business aviation is good for shareholders.

According to Arthur Andersen,<sup>1</sup> business aircraft satisfy "management's need for greater organizational agility, knowledge integration and transaction speed." Their study goes on to say there are "often no ready substitutes for business aircraft without diminishing company performance or losing new business opportunities."

In talking about business aviation, I want to be clear that I am not just referring to turbine aircraft. Piston aircraft are used in business aviation, and at GAMA, we think 2001 will be a good year for piston sales.

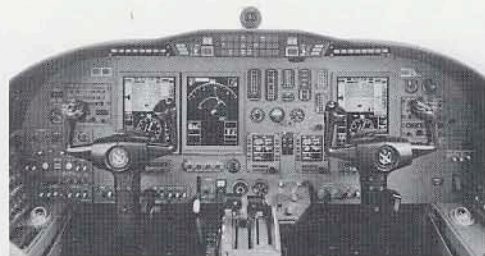
For piston manufacturers, the training market appears to be particularly strong right now. AOPA recently surveyed 122 flight schools of varying sizes and found a strong majority reporting very good growth. It seems that with commercial airlines hiring general aviation pilots at a record pace, there has never been a better time for people interested in a career in aviation to get their pilot certificate.

In addition to these reasons why we believe 2001 will be another good year for general aviation, there is a positive change occurring in the way airplanes are being manufactured that I think bodes well for our industry now and in the future. It is a change toward more system development and integration at the supplier level.

In the past, airframe manufacturers looked to suppliers for individual parts that the OEM would then put together into an integrated system. Today, however, we are seeing airframe manufacturers looking to suppliers for more system development and product integration.

As a result, suppliers are now working together much more closely than ever before—through partnerships, joint ventures or mergers—to give airframe manufacturers something they take out of the shipment box and put on or in their airplanes.

The shift toward more system development and product integration at the supplier level can be seen in everything from power plants to cabin interiors to braking systems. And it can be seen in both the piston and the turbine market, although the trend has probably gone further in the turbine market because there have been more new airplane models developed in that area.



Perhaps nowhere is the shift more evident than in the avionics market where advances in computing technologies related to digitization, miniaturization, faster speed and more capacity are enabling the integration of functions and features on a scale unimaginable just a few years ago. Capabilities that used to require lots of separate black boxes can now be accomplished with fewer boxes, fewer parts and at less weight.

The benefits of system development and product integration at the supplier level are many.

For suppliers it means more opportunity to exercise vision and utilize expertise in developing solutions. It also means more control over the environment in which one's products operate and greater flexibility in their application.

For airframe manufacturers it means lower development costs, reduced inventory, and shortened cycle times.

<sup>1</sup> Arthur Andersen, 2001, *Business Aircraft in the New Economy: A Shareholder Value Perspective*



For customers, having the suppliers do more development and integration can often mean more innovative products and robust systems. For example, virtually all of the new airplane models have avionics suites that can be upgraded by simply updating software as opposed to replacing or modifying hardware. Moreover, if the integrated system on a given airplane appears on more than one model, owners will find their planes easier to support since replacement parts will be more abundant and maintenance technicians will be more likely to recognize and be able to service the systems.

Although the degree to which system development and product integration is taking place at the supplier level varies from product to product and company to company, it seems clear that, in one form or another, this concept will be a fundamental part of how we build airplanes well into the future.



## THE CHALLENGE

Now I would like to turn from the reasons why we believe the industry will continue to grow to one of the biggest challenges facing the general aviation community today—system delays.

At first blush you might be wondering why the general aviation community would see delays as one of *its* key challenges. After all, the delays are largely at airports not heavily used by general aviation. In fact, general aviation represents less than 4 percent of the total activity at the five most delayed airports in the United States.

Moreover, at some busy commercial airports, the general aviation activity that does exist is often on runways that are not being used by the commercial carriers. Washington's Reagan National Airport is a good case in point. Those of you who are familiar with the airport know that one of its runways is less than 5,000 feet in

length—too short for most commercial operations but large enough to accommodate most general aviation aircraft.

Still, it would be wrong for the general aviation community to assert that delays are not its problem.

Time	Status	Destination
9:10	DEPART	CHICAGO
10:15	DELAYED	CHICAGO
10:20	DELAYED	CHICAGO
10:35	DELAYED	PHOENIX
10:50	DELAYED	INDIANAPOLIS
10:55	DELAYED	FT. LAUDERDALE
10:55	DELAYED	TAMPA BAY
10:55	DELAYED	SPOKANE
10:55	DELAYED	RENO/THREE
10:55	DELAYED	JACKSON
10:55	DELAYED	PHOENIX
11:15	DELAYED	FT. LAUDERDALE
11:15	DELAYED	NEW ORLEANS
11:15	DELAYED	CHICAGO
11:15	DELAYED	LAS VEGAS
11:20	DELAYED	RENO/THREE

For one thing, general aviation companies and their customers are very heavy users of the commercial airlines.

Another reality is that general aviation is a vital part of an integrated air transportation system, and as such, we have a responsibility to work with the broader aviation community to make sure that our air transportation system is the best it can possibly be.

At GAMA, we believe the appropriate response to the delay problem is for everyone to work together to increase—not ration—system capacity.

There are new technologies like GPS, ADS-B, Datalink, WAAS and LAAS that can be very helpful in our efforts to increase capacity. All of these technologies, which are currently either in use, in trials or in development, are important building blocks for improving our evolving air system. The challenge for industry and the FAA is in coming together to safely implement these technologies as rapidly as possible so the nation can begin enjoying the benefits they allow.

There are also a number of procedural steps we could take to increase capacity without reducing safety such as allowing independent approaches to closely spaced parallel runways or approving more curved and segmented approaches.





And, of course, the most powerful weapon in reducing delays is building new runways. If we could just get new runways built at our most congested airports we could increase system capacity by as much as 50 percent or more.

In addition to building new runways at commercial airports, our nation needs to invest in our reliever airport system. I mentioned earlier that general aviation represents less than 4 percent of the traffic at the five most delayed airports. One reason the number is so low is because general aviation can often utilize reliever airports. But, if we don't invest in those reliever airports, keep them open, and keep them free from onerous operating restrictions, we are going to find ourselves with no place to go but back to the commercial airports.

Getting the public to understand and appreciate the need for new runways and airports is fundamental to our ability to reduce delays. If we cannot get the general public to support our efforts we will not be able to make substantial progress in eliminating delays.

## GAMA LEADERSHIP

At GAMA, we look forward to working with the rest of the aviation community to meet the challenge of reducing delays. I think we are well positioned to do so.

As many of you know, GAMA president Ed Bolen is chairman of the FAA's Management Advisory Council (MAC) which is designed to assist Administrator Garvey in her efforts to make the FAA a more effective and efficient agency.

In addition, I think GAMA has one of the strongest lineups of committee chairmen in our association's history.

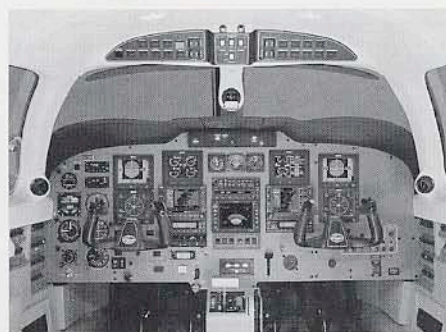
This year Ray Siegfried, the chairman and CEO of the NORDAM Group, will be GAMA's vice chairman; Borge Boeskov, president of Boeing Business Jets, will chair our Technical Policy Committee; Clay Jones, president of Rockwell Collins, will chair our Flight Operations Committee; Bill Boisture, president and COO of Gulfstream will chair our International Affairs Committee; Caroline Daniels, president and CEO of Aircraft Technical Publishers, will chair our Safety Affairs Committee; Gary Hay, CEO of Cessna, will chair the Public Affairs Committee; and Gilles Ouimet, president and CEO of Pratt & Whitney Canada, will chair our Legal Issues Committee.

## CONCLUSION

I am excited about the opportunity to work with these individuals and all of you during my tenure as GAMA chairman.

2001 is an exciting year and one of great opportunity. Strong growth will continue, as evidenced by orders, production, and delivery forecasts. In addition, suppliers will continue to contribute more and more system development and integration capability making aircraft manufacturers even more efficient. And finally, new technologies will continue to advance and provide innovative solutions to the systems delays that impact everyone in aviation.

Together, I know we can meet the challenges of the year ahead and make the promise of growth a reality.







## 2000 STATISTICS

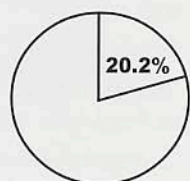
### TOTAL AIRPLANE SHIPMENTS AND BILLINGS

	<u>1999</u>	<u>2000</u>	<u>Change</u>
<b>Shipments</b>	2,504	2,816	12.5%
<b>Billings</b>	\$7.8B	\$8.6B	9.1%

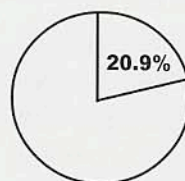
### EXPORTS

	<u>1999</u>	<u>2000</u>	<u>Change</u>
<b>Shipments</b>	562	569	1.2%
<b>Billings</b>	\$2.5B	\$1.8B	-28.6%

### INDUSTRY EXPORTS



Percentage of  
Total Shipments



Percentage of  
Total Billings

### PISTON-ENGINE AIRCRAFT

	<u>1999</u>	<u>2000</u>	<u>Change</u>
<b>Total Market</b>	1,748	1,913	9.4%
• <b>Single-Engine</b>	1,634	1,810	10.8%
• <b>Multi-Engine</b>	114	103	-9.6%

### TURBINE-ENGINE AIRCRAFT

	<u>1999</u>	<u>2000</u>	<u>Change</u>
<b>Total Market</b>	756	903	19.4%
• <b>Turbofan</b>	517	588	13.7%
• <b>Turboprop</b>	239	315	31.8%





# GAMA MEMBER COMPANIES

## AIRCRAFT TECHNICAL PUBLISHERS

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