



**GENERAL AVIATION  
MANUFACTURERS ASSOCIATION**

Edward W. Stimpson  
*President*

*before the*

**NEW YORK SOCIETY OF  
SECURITY ANALYSTS**

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**General Aviation  
Manufacturers Association**

Suite 1215  
1025 Connecticut Ave., N.W.  
Washington, D. C. 20036  
(202) 296-8848

## GAMA MEMBERS

The Bendix Corporation	NARCO Scientific Industries
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The General Aviation Manufacturers Association (GAMA) appreciates the opportunity to be here today. During the course of the year, we have talked with many of you about the general aviation industry. We have been grateful for both your interest and the assistance you have given regarding the marketplace.

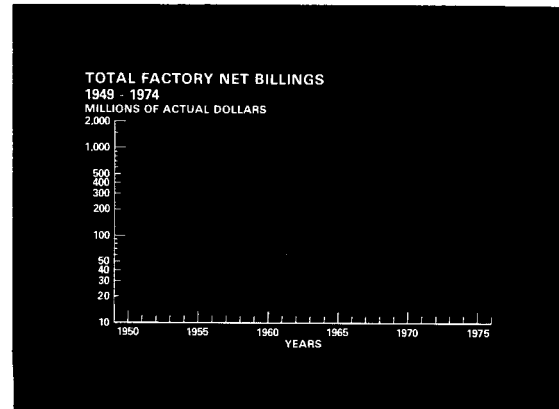
GAMA is an independent trade organization representing 28 U.S. companies that produce over 99% of the nation's general aviation aircraft and equipment. Our members make airplanes, aircraft engines, navigation and communications equipment, airway maps and aircraft manuals, and practically everything else that goes into a general aviation aircraft.

It's been a challenging year in general aviation manufacturing. The industry outlook last summer was better than it had ever been in history.

Then, last fall, we were hit by fuel allocations which averaged a 42% reduction. The whole industry came together in a joint effort, and was successful in getting that situation changed.

No sooner were we recovering from the fuel crisis than we were suddenly faced with inflation at higher rates than this country has experienced in many years, and also rapidly rising interest rates. Manufacturers began to be affected by supplier strikes—longer lead times slowed production—and escalating prices led to aircraft price increases.

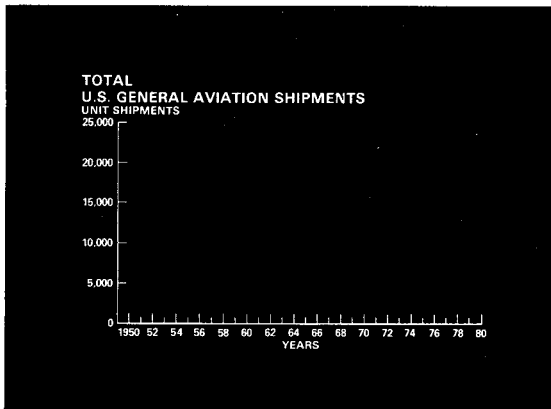
In the midst of all these troublesome factors, the fact is this: The industry is having a good year.



Today, we foresee shipments of 14,400 units in 1974 with factory billings of \$920 million. This is an increase of 6% in units and 11% in dollars over 1973.

As a result, there will be more sales and profit dollars generated in this business during 1974 than ever before in general aviation's history. Currently, field inventories remain at extremely low levels; retail

sales are strong; and in most models of aircraft, orders are outpacing production. At this point, 1975 looks like another record year. We foresee deliveries increasing by more than 20% and in the range of 17,000—18,000 units, which would approximate 1.1 billion dollars in net billings.



These may be surprising facts in view of our reputation as a cyclical industry. However, the long term trend of general aviation is of substantial growth. The industry has experienced a compounded annual rate of growth of 14% in dollar billings for the last 20 years. The principal reason for this growth is the increasing transportation role and the many diverse commercial and industrial purposes for which the general aviation aircraft is being utilized. Let me explain:

The civil air transportation system in this country is comprised of the scheduled airlines and general aviation. The airlines today are doing a fine job in transporting 200 million passengers a year and serving 500 airports. Each dot on this map represents a city with scheduled airline service. As the airlines have continued to introduce larger jet aircraft into their fleets, they are concentrating on the mass travel markets. For example, 30 of the 500 airports served by the airlines generate 70% of their total passenger traffic. And 150 of those airports board 96% of the traffic. Consequently, there are a number of airports with limited airline service.

Meanwhile, this presents a vast market for general aviation which services not only these 500 airports, but the other 96%, or 12,200. These airports provide many thousand American towns and communities with their only link to the air transportation system.

In fact, one out of every three inter-city air passengers travels on a general aviation aircraft—a total of approximately 90 million a year. The general

aviation fleet includes about 151,000 active aircraft in the United States. Currently, 101 models of aircraft are being manufactured by U.S. companies. This includes everything from a light single engine aircraft selling for about \$10,000 to business jet aircraft with inter-continental capability and costing over four million.

Seventy-two per cent of general aviation flying is for business or commercial purposes. Of this, business flying is the largest. Of the 40 thousand full-time business aircraft, eight per cent are turboprop or turbojet, which is slightly more than the total airline fleet. The vast majority of business aircraft are single and multi-engine piston. The real growth in business aviation is occurring because more and more companies and individuals are finding airplanes to be a necessary "time machine" in meeting transportation requirements every day and in every way.

An analysis of Fortune's Top 1000 Industrial's by Aviation Data Services showed a correlation between companies who operate business aircraft and the firm's financial status. 432 companies owned business aircraft and these companies generate nearly 80% of total sales and 84% of net profits.

The reasons for growth in business flying are several fold. First, American business continues to decentralize throughout the United States. Often, these areas lack adequate access to the scheduled transportation system. As a result, general aviation has become the most practical form of transportation for many businesses—transporting their people, their products, and, equally important, their supplies and parts to keep the production lines moving.

Second, improved all-weather capabilities and reliability, as well as improved passenger comfort is making general aviation a more useful tool to a wider range of companies.

Third, while business aircraft may once have been used by the company's top officials almost exclusively, they are now used to transport managers, engineers, accountants, technicians, and other specialists who are constantly on the move.

Fourth, the reduction in airline schedules, and the 55 mile an hour speed limit have helped make general aviation a more efficient, and economical alternative means of transportation.

And fifth, the business airplane is a capital investment, the same as any other business machine; consequently, it is eligible for a seven per cent investment tax credit and accelerated depreciation schedule.

Another segment of business and commercial flying is the rental, air taxi, and commuter market.

On-demand air taxi service and rental operations are growing for the same reasons that business flying is expanding. And many of the users of air taxis are potential aircraft buyers. The scheduled commuters have moved steadily into the small city markets unprofitable for airlines. A contrast between the route structure of 1965 and today shows this dramatically. Today, the commuters serve more airports than the certified air carriers. According to CAB figures, cargo is up 52%, airmail 30%, and passengers 11% over last year. We foresee this to be a continuing market for general aviation equipment.

The most diversified market in business and commercial use is special purpose flying. This category includes many activities—pipeline patrol, fish spotting, traffic control, aerial mapping—and it also includes the direct use of the aircraft in American agriculture. Last year, U.S. manufacturers produced 700 Ag planes and we anticipate a 40% unit increase for 1974.

Agricultural aviation in the United States is a billion dollar industry in seeding, fertilization, and pesticide application. Factors stimulating this growth are quite evident. Because it provides greater penetration and coverage, aerial application requires less chemical per acre, and uses one ninth the fuel of land-bound equipment.

Flight training is another commercial market. It includes people seeking new ways to travel. Instructional flying is, in fact, the base of the future of the industry. In the next ten years, it is estimated that at least a million and a half people will learn to fly.

To promote flight training and produce a better pilot, manufacturers have developed national flight training programs which are sold through their dealer networks. By attending these new programs, the pilot is generally getting higher scores on FAA exams and completing his training in less time. Generally, the student entering flight training today is a more serious and purposeful individual who intends to utilize his training.

In the wake of the energy crisis, student starts have dropped about 17%, according to FAA figures. However, FAA figures also show that new private pilot licenses are up by about 5% in the first six months, this year over last. "Learn-to-fly" programs which were de-emphasized for the last few months are now being reinstated. Some GAMA companies are reporting substantial increases in training activity.

The remaining 28% of general aviation is related to personal use. The airplane has proven to be a most fuel-efficient and convenient vehicle for per-

sonal transportation. For example, a family wants to travel from Memphis to Philadelphia. By car, it would take them 21 hours, or two days of travel time . . . while consuming 105 gallons of gasoline. On the other hand, their comparable general aviation aircraft will fly directly to their destination in about seven hours, or one day . . . using just 51 gallons of fuel—and that's a saving of one day of travel and about half the fuel! In short, there remains an unprecedented demand for business and personal transportation by general aviation.

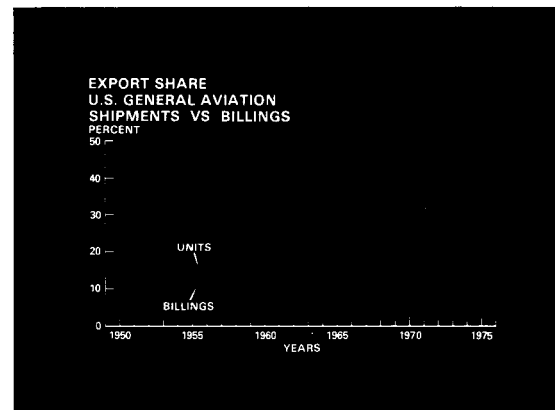
We believe we are now entering a new phase in long term growth. The industry understands itself better, and can react faster and more intelligently to changing conditions. We have not forgotten 1970, when our production tailsun 40%.

There are a number of differences between 1974 and when our market showed its last downturn. First, field inventories are now extremely low in contrast to 1969. Second, thus far, there has not been a shortage of available financing. In contrast, some financial institutions got out of general aviation completely in 1969-70. This has not happened in 1974, and the industry has taken precautions to protect financing. Third, there is a greater need for and acceptance of general aviation transportation than in 1969. Fourth, the export market is much stronger in 1974, and is growing.

I suggest that as part of our maturity, we will not be as cyclical as in the past.

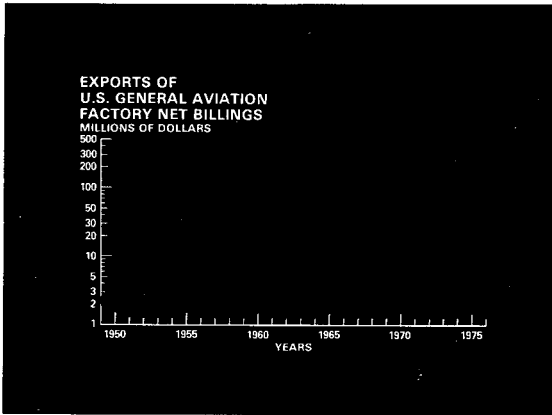
The general aviation industry has matured in many ways. A strong dealer sales and service network which sells 90% of all aircraft is connected to industry growth. This network is strong. An infusion of new capital is occurring.

New management training programs are being



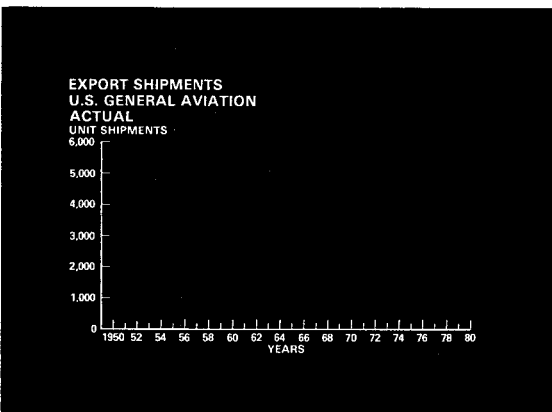
conducted at the dealer level to improve their profitability. Technical training programs for maintenance personnel and avionics technicians are raising the level of field support. As a result, the industry is more capable of selling its products and promoting its services.

Another growing factor is the export market. Exports have accounted for an increasing share of industry production; we are now exporting about 32% of total production. Last year, U.S. general



aviation manufacturers shipped to over 80 countries, 3,530 airplanes valued at more than \$230 million.

For the first six months of this year, exports were 39% ahead in units and a 44% increase in dollar volume over the corresponding period of last year. For the year-end, we estimate that exports will total about 4,400 aircraft with factory billings of nearly \$300 million.



The export market is becoming increasingly strong. General aviation transportation is being used for many of the same purposes as in the United States. We are seeing good growth on every continent. The devaluation of the dollar has helped make U.S. products more competitive abroad. The Export-Import Bank financing has been of assistance for financing over \$300 million dollars of aircraft.

Today about 90% of the free world's general aviation fleet of 230,000 airplanes has been manufactured in the United States. Currently, U.S. manufacturers are exporting 23 aircraft to every one general aviation import.

To maintain our world leadership position in general aviation will not be easy. We are facing foreign competition and increased tariff and non tariff barriers. However, the world market is large, and we foresee its ability to absorb a considerable number of general aviation aircraft, both by U.S. and foreign manufacturers.

The future of general aviation in the U.S. is dependent upon having adequate airport/airway facilities. The airport/airway trust fund has helped in the development of 80 new general aviation airports, as well as the improvement of hundreds of others. In places like Dallas, Houston, Kansas City, Chicago—former major airline airports located in close proximity to downtown areas have been retained for general aviation transportation services.

Although general aviation is maturing, and is a more stable industry than in the past, we will continue to be sensitive to the national and world economies. We do see the economic climate as favorable to the growth of general aviation, both in short and long term. In particular, factors such as corporate profits, real growth in gross national product and the availability of capital and financing are important to the marketplace. Because general aviation products fulfill diverse roles in world-wide transportation and commerce, greater stability should occur as expanding markets offset those which may be lagging.

General aviation has grown in the United States because we have basically had an environment that has allowed growth. We are faced with the issue of who pays for the modernization and expansion of the airport/airway system, as well as its operation and maintenance. We feel this is a question which will eventually be fairly and equitably resolved by the Congress.

Another sign of industry maturity is the ability of various segments of the aviation community—airlines, general aviation, airport operators—to communicate and work together with the government

in solving joint problems affecting the future of the industry. This is an important factor in building the future airport/airway system.

General aviation is also strongly cooperating with the federal government to support fuel conservation programs. For example, I would like to show you a condensed clip from a film GAMA produced for presentation at FAA Accident Prevention Seminars.

General aviation is healthy and viable. The transportation role of the general aviation airplane is increasing to historic levels both in the United States and abroad. For the past few months, general aviation has faced some unique challenges in market planning. Through it all, the demand for general aviation products has remained solid as the industry has continued to post record levels of factory billings. Low field inventories and growing order commitments, both domestically and worldwide, are evidence of strong demand which the industry is still not meeting.

To sum it up, 1974 looks good, and 1975 even better. We hope that each of you might personally be able to visit our member companies' facilities in the near future and see first hand the status of the industry.

### U.S. GENERAL AVIATION PRODUCTION

Year	Units			Dollars (Millions)		
	Total	Exports	Percent	Total	Exports	Percent
1949	3,405	488	14.3%	\$ 17.7	\$ 2.2	12.4%
1950	3,386	415	12.3%	19.1	2.3	12.0%
1951	2,302	433	18.8%	16.8	3.1	18.5%
1952	3,058	354	11.6%	26.8	3.0	11.2%
1953	3,788	579	15.3%	34.4	4.6	13.4%
1954	3,071	496	16.2%	43.4	7.1	16.4%
1955	4,434	640	14.4%	68.2	7.5	11.0%
1956	6,738	965	14.3%	103.7	12.5	12.1%
1957	6,118	1131	18.5%	99.6	17.4	17.5%
1958	6,414	865	13.5%	101.9	12.0	11.8%
1959	7,689	962	12.5%	129.8	14.6	11.2%
1960	7,588	1481	19.5%	151.2	27.3	18.1%
1961	6,778	1583	23.4%	124.3	29.8	24.0%
1962	6,697	1458	21.8%	136.8	30.9	22.6%
1963	7,569	1579	20.9%	153.4	35.1	22.9%
1964	9,336	1775	19.0%	198.8	44.1	22.2%
1965	11,852	2325	19.6%	318.2	61.2	19.2%
1966	15,768	2903	18.4%	444.9	75.4	16.9%
1967	13,577	3035	22.4%	359.6	76.5	21.3%
1968	13,698	2803	20.5%	425.6	91.5	21.5%
1969	12,591	2623	20.8%	638.8	107.1	16.8%
1970	7,402	2170	29.3%	364.1	98.9	27.2%
1971	7,464	1854	24.8%	313.1	95.6	30.5%
1972	9,774	2254	23.1%	557.2	137.9	24.7%
1973	13,646	3530	25.9%	828.2	230.2	27.8%
1974*	14,400	4400	30.6%	920.0	280.0	30.4%
Actual	14,166	4248	30.2	908.4	287.5	31.6
Estimated	15,020		25%	\$ 1 Billion +		

## QUESTIONS AND ANSWERS

**QUESTION #1:** At this time, there is a small but growing number of economists who are projecting negative corporate profits in either all or a portion of 1975. There's good reason, when one looks at the inventory profits to see the strength in demand in 1974 for general aviation.

A lot of the items that you mentioned, as far as strong growth factors occurring at the present time in general aviation, also existed in '69, except for the 55-mile-an-hour speed limit. Could you explore the strength a little more completely, giving us a better feel for the better than 20% growth forecast in 1975 production?

**ANSWER (Stimpson):** We are all looking very closely at the course of the economy. Despite some of the factors stabilizing and maturing our industry, if the world and national economies do deteriorate, we would, of course, have to revise some of our projections. At this point in time, however, our projections are based upon the existing demand for airplanes.

Corporate profits have been an important indicator in purchasing business airplanes. While the small but growing number of economists you mentioned might see negative corporate profits, this may not be the case for all industries. Even if some industry profits do decline, other segments of industry profits may do quite well. Although we can't close our eyes and say that we no longer have a corporate profits relationship, I suggest to you that the increased transportation role of the general aviation airplane as an efficient business tool must be looked upon as a strong factor.

**QUESTION #2:** Do you expect the international market to be a good, stable, long term growth market like that which has occurred in other industries? Or is general aviation merely in a catch up mode, and if so, are we not seeing the same type of cyclicity which we saw in the 1969-70 time frame? For example, in the third quarter of '71, the percentage of foreign revenues to the GAMA people went up to 38%. And then in the fourth quarter dropped to 20, where it stayed for a period of time and then it started to go again.

**ANSWER (Stimpson):** We see the export market expanding and stabilizing for many of the same reasons it has in the United States. In Europe and other continents, air taxi and business aircraft are being used more and more for business transportation. In fact, some of our companies have made projections that, perhaps, by the end of the decade, the export market may equal the domestic market. Currently, exports are running over 30% of our production.

Aircraft manufacturing, however, is not the only growth being experienced in general aviation. Avionics and the engine manufacturing are also very strong. In short, we are optimistic about the international market. There are some markets in the world we've just barely touched. The general aviation airplane in many markets is just coming into its own right.

**QUESTION #3:** It's obvious that the general aviation aircraft manufacturers are going to have the same inflationary problems as other industries. On top of that, there are some other pressures. It seems that the environmentalists are looking for more noise and emission controls, which is an incremental expense. At the same time, the government is looking for more safety, forcing companies to have price increases above and beyond any gain in productivity of the product. Also, there has been a cost allocation study as well as user fees which would tax general aviation to a greater extent. Now, all these are non-product-productive types of incremental expenses on top of inflation. Would you expect this type of impact will have an elastic and negatively elastic impact on demand?

**ANSWER (Stimpson):** You wrap up a lot in one question. I will give you the short answer. There are a lot of factors in each of these areas.

First, we are working closely with the Environmental Protection Agency on noise and emission areas. We do not have all the answers as to what is technically achievable and economically feasible.

Second, we've lived with safety regulations since our beginning. In fact, we're probably the most safety-regulated industry today. Safety is part of our creed.

Third, on the cost allocation issue, I don't think that Congress is going to put us out of business or allow us to be put out of business by unreasonable charges. In the future, if the worst would happen in each of these cases, we would be forced to implement considerable price increases. But again, I do not think the worst is going to happen, and as an industry we are striving to reach reasonable and sensible solutions.

**QUESTION #4:** What is the future for the business jet? Is that market growing faster as a percentage of the total corporate market?

**ANSWER (Stimpson):** I am not sure that the jet market is growing faster than other business aircraft markets which includes single and light twin lines, but certainly, it's growing. Business jets will account for around 225 aircraft this year, up nearly 12% from 1973, despite a continued strike at a major engine supplier. In total, the turbine market is growing sub-

stantially. This year, we will deliver close to 500 turboprop and turbojet aircraft. In contrast, deliveries are expected to increase to nearly 650 aircraft in 1975. The companies that make turbine aircraft indicate that the market is very strong for that type of aircraft.

**QUESTION #5:** The Export-Import Bank was very helpful in financing general aviation exports. What's the status now?

**ANSWER (Stimpson):** As you know, the Bank is currently living under its second 30-day resolution for extension. We are hopeful that legislation extending the Bank will soon be passed so that it can continue its present function. An Amendment which could have been detrimental to aircraft financing, including general aviation, was defeated in committee.

Our companies use a diverse method of Ex-Im Bank financing. Some are through direct loan for the larger aircraft. Others are through the insurance programs. The Bank has been very helpful on aviation exports.

**QUESTION #6:** Will continuing requirements for increased aircraft avionics have a spiraling negative cost effect? Will such equipment as the Emergency Locator Transmitter and Transponders hinder the sales of general aviation aircraft?

**ANSWER (Stimpson):** The Emergency Locator Transmitter for all aircraft became effective July 1 of this year. This equipment, as far as newly manufactured aircraft are concerned, has been in effect for nearly two years. This requirement is pretty well behind us, and though it has been an additional burden, I do not think it has stopped any new aircraft sales.

As far as requirements for transponders, we all recognize the need for an adequately equipped aircraft using high density hubs. Our main concern is that we do not over-regulate or require equipment at airports or terminal areas where such equipment is really not needed for air traffic control or safety. In certain cases, additional avionics requirements will have a positive impact on industry sales, since the aircraft is much more useful. In many cases, additional hardware gives the general aviation aircraft greater utility and flexibility in operating in high density areas where congestion and safety are optimal.

**QUESTION #7:** With the continued growth in commercial airlines, is it likely that the air traffic control system will become congested to the point that it will limit the use of general aviation aircraft in the future?

**ANSWER (Stimpson):** There are relatively few places where we have a congestion problem, now or in the

future. There is plenty of airspace available in most places. At some of the major metropolitan areas, we do have a problem. That is why we push so hard for the Airport/Airway Trust Fund which provides for additional reliever airports and increased capacity through separate runways at major airports. Some of the steps that have been taken for retention of former airline airports in places like Dallas, Kansas City, Houston and Chicago, have been giant steps which insure general aviation access to these areas. In some of the other major cities, the solution is not as easy.

**QUESTION #8:** If we do have another fuel crunch, is it not likely that general aviation will get the short end of the stick, as it did last November? The airline lobby seems to be quite a bit stronger than the general aviation lobby.

**ANSWER (Stimpson):** We did get the short end of the stick, as you know, last November, with a forty-two point five per cent cut. The General aviation lobby, composed of the people throughout the country who are involved in and utilize general aviation every day, stood up and protested. This came from a wide range of people, firms and companies, and communities who depend on the airplanes. They responded, and the government responded also.

We're working right now with the Federal Energy Administration and, as you know, they will soon be holding public hearings on the whole aviation fuel program. Their current proposal raises the base of general aviation to 100% of base period. Currently, allocations are liveable, and we want to keep them that way. We are willing to play our part in any fuel allocation, but do not think that we should be singled out as we were the first time around.

**QUESTION #9:** What meaningful foreign competition exists at the present time, and what competition is foreseen in the future, in both the areas of aircraft and avionics?

**ANSWER (Stimpson):** There is a lot of development overseas in aviation, both in airframe and avionics. Competition is also coming from countries that are starting to develop their own aircraft industry. Thus far, we still have about 90% of the marketplace, and we hope to keep that. I suppose we're the classic free trader, as an industry. We are willing to compete, both abroad and here, provided we are allowed to compete.

And that's why we do not want tariff barriers, or non-tariff barriers. In the free marketplace, we think we can maintain our market share, because of the products we build and the price.



BIOGRAPHY OF EDWARD W. STIMPSON

Edward W. Stimpson, president and a board member of the General Aviation Manufacturers Association (GAMA), Washington, D. C., joined the association when it was formed on January 1, 1970. He was elected president in November, 1970.

Mr. Stimpson had been vice president, public and international affairs, from January to November, 1970. In that capacity, he directed GAMA's advertising and public relations programs and represented the association in legislative and international affairs.

Mr. Stimpson served with the Federal Aviation Administration in Washington, D. C., from December 1962 until he joined GAMA. He was named FAA's assistant administrator for congressional liaison in July, 1965. In this position, he was responsible for advising the FAA administrator on all phases of congressional activity.

Before his federal government service, Mr. Stimpson was acting director of the Pacific Science Center Foundation at Seattle, Washington where he developed and administered a program to convert the U.S. Science Pavilion at the Seattle World's Fair into a permanent Science Center.

From 1959 to 1962, Mr. Stimpson was assistant to the president of the Seattle World's Fair and the fair's Washington, D. C. representative.

Mr. Stimpson was born on June 18, 1934 in Bellingham, Washington, and was graduated Cum Laude from Harvard College in 1956. He is a private pilot.