GENERAL AVIATION 1969

Lightplane activity in 1968 continued upward, but the growth rate was lower than that deemed necessary by some industry officials. Student starts were less in 1968 than in 1967, marking the first decline since 1963

■ ■ General aviation, one of the fastest expanding segments of the United States' economy in recent years, experienced sizable growth in practically all categories except new student starts during 1968. Some gains were less than forecast, lending support to beliefs that the growth rate has reached a leveling-off point.

Looming as the darkest and most forbidding cloud on the 1969 general aviation horizon is the recently announced Federal plan to all but ban lightplanes from five major publicly-owned airports in the northeast section of the country, starting April 27, 1969.

Involved are John F. Kennedy International and LaGuardia airports in New York, Newark, N.J., Washington National in Washington, D.C., and Chicago's O'Hare (Nov. 1968 PILOT). All have been designated "high density air traffic airports." For all practical purposes, these facilities will be used only by the airlines and air taxis supplying passengers for the airlines.

If left unchecked, the move to abolish the historical "first-come-first-served" principle in use of public facilities is expected to spread throughout the nation, effectively barring lightplanes from taking off or landing at strategic public airports.

Publicly acknowledged by the FAA as a Federal move to give the airlines preferred status over all others, the new restrictions can only lead to a drastic downswing or, at the very least, curtailment of general aviation growth due to the accompanying decrease in utility of private and business aircraft, according to most assessments.

Total effect of the new restrictions represents the biggest question mark in general aviation's future and firmly emphasizes how adverse FAA actions can affect the status of the private and business aircraft segment of the nation.

Effects of the unprecedented move to all but turn over large public facilities and blocks of airspace to the airlines and bar private and business aircraft from using them came too late in 1968 to be assessed as a factor in activities during the calendar year.

General aviation airframe manufacturers sold more aircraft and posted more dollar sales in 1968 than in 1967, but failed for the second straight year to equal record sales in 1966, when 15,723 units with an estimated $588,800,000 retail value entered the general aviation fleet.

Student starts, the all-important barometer used in recent years to gauge future sales potentials, fell to about 155,711 during 1968. This is approximately 37,000 less than the 193,000 forecast earlier by some industry leaders for 1968. It is 3,688 less than the 159,399 new student starts in 1967.

The active U.S. general aviation fleet increased from 114,186 at the start of 1968 to an estimated 125,720 going into 1969. Total shipments during the calendar year were estimated at 14,418 with an approximate retail value of $558,697,000.

Shipments in 1967 totaled 13,536 aircraft with an estimated retail value of $512,984,000. Approximately 2,884 (20%) of the 14,418 shipments in 1968 were for export, resulting in a net gain of only 11,534 aircraft to the U.S. general aviation fleet.

Both the total 1968 shipments of 14,418 and the dollar sales of $558,697,000 represent smaller percentage increases than those which some industry leaders in the past have said are an acceptable "minimal growth rate" for the industry "to remain healthy."

According to a 1967 study conducted by Cessna Aircraft Company's marketing division for Arizona State University, the airframe manufacturing industry since 1962 has considered a yearly increase of 14.88% as the "minimal growth rate" required by the industry because of investments and other factors.

The estimated 14,418 unit shipments for 1968 represent only a 6½% increase over 1967 shipments of 13,536, and the estimated retail value of 1968 shipments is only about 9% more than the retail value of shipments the previous year.

New student starts in the past have represented the single most important factor in projecting sales potential. The sales formula has been based on the simply stated concept that as the pilot population increases, so will the need for more airplanes.

On Dec. 31, 1967, there were 617,931 active pilots on the FAA's official rolls. Using a historical pattern which shows that about 50% of all new student starts drop out and do not go on to receive their private pilot's certificate, the 155,711 student starts for 1968 will produce a net gain of 77,856 new pilots, for an estimated total active pilot population of 695,787 on Jan. 1, 1969.

The 1968 student-starts decrease marked the first slump in growth since 1963. Comparative yearly figures for student starts are: 1963—69,130; 1964—84,629; 1965—94,635; 1966—129,180; 1967—159,399; estimated 1968—155,711.

Despite the lack of an increase in new student starts during 1968, plus the lower than desired rate of growth in both unit sales and dollar volumes, leaders in the general aviation airframe industry publicly registered satisfaction with 1968 and forecast sales increases for 1969.

The 1969 forecasts ranged from 20% to 25% increases over 1968 sales. The forecasts, made by members of general aviation's "big five," would make 1969 shipments total from 17,302 to 18,023 units based on the estimated 14,418 shipments for 1968.

Members of general aviation's "big five" are: Aero Commander Division of North American Rockwell Corporation; Beech Aircraft Corporation; Cessna Aircraft Company; Mooney Aircraft, Inc.; and Piper Aircraft Corporation. Over the past seven years, the five companies have accounted for all but a comparatively small portion of the total lightplane production in the United States.

The "big five," along with about 19 other companies in the United States and abroad, comprise the group of firms actively involved in either manufacturing or marketing complete general aviation aircraft in the United States. For the most part, the firms follow a practice of operating on a fiscal year which runs from Oct. 1 of one year to Sept. 30 of the following year.

For the fiscal year ending Sept. 30, 1968, the group of firms shipped a combined total of about 15,555 aircraft. Shipments by U.S. firms in the group totaled 14,388, according to records maintained by the Utility Airplane Council, which states that its member companies account for more than 98% of U.S.-manufactured general aviation aircraft.

The "big five" accounted for 14,007 of the 14,388 units shipped during fiscal 1968. Shipments by the leaders were: Cessna, 7,003; Piper, 4,476; Beech 1,334; Mooney, 662; and Aero Commander, 532. In 1967, Cessna shipped 6,184; Piper, 4,273; Beech, 1,313; Mooney, 676; and Aero Commander, 330.

Cessna, which maintained its production leadership for the 13th straight

This Is U.S. General Aviation 1969

	As of Dec. 31, 1967	As of Dec. 31, 1968*
Aircraft	114,186	125,720
Single-engine, 1-3 place	39,675	42,772
Single-engine, 4-place or more	56,865	62,831
Multi-engine	14,651	16,494
Other	2,995	3,623
Airmen	617,931	695,787
Student	181,287	202,178
Private	253,312	291,430
Commercial	150,135	166,889
ATR	25,817	28,231
Other (helicopter, glider plus those not requiring medical certificates)	7,380	7,059
General Aviation Hours Flown	22,153,000	24,892,560
Business	6,578,000	8,463,470
Instruction	6,262,000	5,974,214
Personal	5,173,000	5,476,364
Commercial	3,918,000	4,729,586
Other	197,000	248,926

* This quick statistical look at general aviation in the United States represents an attempt to give currency to the most recent official FAA information available. All 1967 figures are from official FAA records. Aircraft statistics for 1968 are based on actual shipments the first 10 months of the year, with estimates for the final two months based on previous years' sales. Airmen statistics for 1968 are based on actual student starts the first 10 months of the year. Percentages of pilots in each category as of Dec. 31, 1967, were used to obtain the breakdown of pilots as of Dec. 31, 1968. Estimated hours flown in 1968 were computed by taking the average number of hours flown by each airplane in the fleet during calendar 1966 and 1967 (198 hours) and multiplying that figure times the estimated fleet of 125,720. Average percentages for each type of flying from 1964–1967 were used to compute the breakdown by types of flying for 1968.

Landing Facilities

1963–1968*

As of Dec. 31:	Total	Public Use	Private Use	Lighted	Paved
1963	8,814	5,582	3,232	2,672	2,451
1964	9,490	6,287	3,203	2,773	2,620
1965	9,566	6,483	3,083	2,878	2,747
1966	9,673	6,640	3,033	2,988	2,859
1967	10,126	6,895	3,231	3,149	3,109
1968[1]	10,364	6,977	3,387	3,259	3,286

* From FAA reports. Includes heliports, seaplane bases and military joint-use facilities in the 50 states and U.S. possessions.
[1] As of Aug. 1, 1968.

AN AOPA PILOT SPECIAL REPORT

Air Traffic Activity Recorded By FAA Control Towers

Fiscal Years 1963–1968

Year	No. Towers	Total Operations	Gen. Av.	Air Carrier	Mil.
1963	274	29,190,087	63%	24%	13%
1964	277	32,857,745	66%	23%	11%
1965	284	35,557,868	69%	21%	10%
1966	299	41,209,592	72%	20%	8%
1967	309	47,584,327	75%	18%	7%
1968	318	52,998,583	75%	19%	6%

year, declined to project specific sales figures for 1969, but information from others in the "big five" revealed the hopes of 1969 sales averaging from 20% to 25% greater than 1968.

Piper Aircraft, consistently number two in shipments, predicted a flat 20% increase for 1969 during the company's annual dealers' meeting in October, and Beech told its dealers they faced a 1969 sales goal amounting to a 25% increase. Mooney has predicted an increase of about 23% for 1969. No forecasts were available for Aero Commander, which registered the biggest percentage increase in sales during 1968 (532 in fiscal 1968 and 330 in fiscal 1967).

The estimate of 14,418 shipments for calendar year 1968 was computed from actual shipments through October (12,018) and estimated shipments of 2,400 for the final two months based on 1967 sales figures. The 155,711 new student-starts figure was computed from

General Aviation Aircraft Shipments

1963–1968

Year	Production In Units	Estimated Retail Value	Total Active Fleet
1963	7,628	$217,751,000	85,088
1964	9,459	296,074,000	88,742
1965	12,053	474,715,000	95,442
1966	15,723	588,900,000	104,706
1967	13,536	512,984,000	114,186
1968	*14,418	558,697,000	125,720

* About 20%, or 2,884, of 1968's estimated 14,418 shipments is expected to be exports resulting in only an 11,534 net gain to the U.S. general aviation fleet.

actual student certificate issuances through October (129,711) and estimated issuances of 26,000 for November and December.

The preceding and other facts were gleaned from information provided The AOPA PILOT by the FAA, U.S. Department of Commerce, and the Utility Airplane Council (UAC) of the Aerospace Industries Association (AIA) to give readers a look at "General Aviation, 1969."

The recently updated version of the FAA's National Airport Plan, Fiscal Years 1969-1973, and the FAA's annual Air Traffic Activity report for fiscal 1968 (July 1, 1967 to June 30, 1968) also were used to supplement the information and further round out the current civil aviation picture.

Use of the FAA's procedure for keeping track of shipments in a calendar year provides readers with a glimpse of trends over the past 10 years. The figures are only for shipments of general aviation fixed-wing aircraft, and the dollar volume is based on wholesale values: 1959—7,802 units, $147,585,000; 1960—7,726 units, $177,213,000; 1961—6,943 units, $151,302,000; 1962—6,797 units, $156,816,000; 1963—7,628 units, $174,201,000; 1964—9,459 units, $236,859,000; 1965—12,053 units, $379,772,000; 1966—15,723 units, $471,120,000; 1967—13,536 units, $410,387,000; estimated 1968—14,418 units, $446,958,000.

As the figures indicate, 1968 wholesale dollar sales are expected to approach the record dollar sales in 1966, despite a lower number of comparable unit sales for the past 12 months. The increase in per unit dollar sales is believed attributable to trends within the industry in recent months to concentrate sales on six-place and larger aircraft to meet needs of the growing number of air taxi operations.

Whether the trend toward sales of higher-priced and larger-sized general aviation aircraft continues remains to be seen. It probably will depend mainly on the sustained growth of air-taxi operations and the student-starts picture for 1969.

Based on the 14.88% acceptable minimum yearly increase factor mentioned earlier, dollar volume for general aviation aircraft sales by 1970 should reach $775 million, and by 1975 should amount to over $1.5 billion. Both dollar figures represent wholesale billing figures and were projected by Cessna marketing personnel in their special study for Arizona State University. Converted to retail value, the projected 1970 sales would total about $968,631,000, nearly double the estimated retail sales for 1968. For 1975, the projected sales would amount to nearly $2 billion in retail sales.

While the manufacturers mull over 1968 sales and the decline in student starts and map out courses of action for increasing both in 1969, private and business pilots now using the airways will be perusing gains and losses over the past 12 months in the utility of their individual aircraft.

They also are expected to watch closely trends of the new Nixon Administration in future treatment of general aviation. As in past years, general aviation's biggest problems in 1968 revolved around the Federal Government's concentrating the bulk of available money and manpower on facilities desired by the airlines segment of U.S. civil aviation.

Adding to the problem was insufficient money to meet current needs, much less needs of the future. Federal grants-in-aid for airport development in fiscal 1969 (July 1, 1968 to June 30, 1969) amount to only $70 million. For fiscal 1970, only $65 million was requested and the 90th Congress cut that request to $30 million, the lowest level since 1955.

These dismal allocations contrast sharply with civil aviation needs as outlined in the recently released 1968 version of the FAA's National Airport Plan (NAP) for fiscal years 1969-73. The NAP is an annual assessment of civil airport needs for both general aviation and the airlines.

"More than 800 new airports must be built in the United States during the next five years to relieve present congestion and accommodate future growth," the FAA said in summarizing airport requirements through 1973.

"Recommended new facilities include 808 airports, 31 heliports and four seaplane bases. Also listed are specific improvements needed at 2,965 existing airports," the FAA added before placing the price tags on the improvements. "The total cost of these projects is estimated at $2.16 billion, of which $1.38 billion (64%) represents development funds needed in fiscal years 1969 and 1970."

Small gains were made during 1968 to add new landing strips to the total air transportation system. There were 9,673 airports, heliports and seaplane bases in the system on Dec. 31, 1966. The number rose to 10,216 by Dec. 31, 1967, according to the still unpublished "FAA Statistical Handbook of Aviation, 1968 Edition." There were 10,364 as of Aug. 1, 1968, the FAA reported.

Of the 10,364 airports, 528 were heliports and 405 were seaplane bases. The balance of airports were considered acceptable for use by fixed-wing aircraft. The total number included 3,939 publicly-owned airports and 6,425 privately-owned facilities. All but 3,387 of the airports were open to public use as of Aug. 1.

A further look at the current airport situation finds that only 2,369 of the 10,364 airports are paved and lighted, while 6,188 are neither paved nor lighted. Paved and unlighted strips amount to only 917, and lighted but unpaved fields total 890. During the first seven months of 1968, a total of 237 fields were closed. Abandonments for the 12 months of 1967 totaled 322 fields.

The number of airports with FAA air traffic control towers climbed from 309 to 318 during fiscal 1968, and operations at the towers increased 11% over fiscal 1967. There were 47,584,327 operations in 1967, and 52,998,583 during fiscal 1968. Civil aviation accounted for 49.6 million operations, or 94%, and the military accounted for the balance.

Air traffic tower operations involving airline movements increased from 8,563,698 in 1967 to 9,881,330 in 1968. General aviation's portion climbed from 35,711,625 in 1967 to 39,755,572 in 1968. The 39.8 million yearly operations for general aviation at airports with FAA towers represents a 300% increase over 1958's figure of 13,228,714 lightplane movements.

Studies have been conducted indicating that about 75% or more of all general aviation activity occurs at airports without FAA air traffic control towers. Projecting this figure nationally would indicate that general aviation aircraft registered about 69.2 million takeoffs and landings during fiscal 1968, compared to the 39.8 million posted by the FAA at the 318 towers.

The FAA's workload of IFR traffic, takeoffs and landings only, also increased in fiscal 1968. It rose to 14,068,762, with the airlines accounting for 8,540,550; the military 3,135,826; and general aviation, 2,392,386. In fiscal 1967, the airline IFR operations totaled 6,800,026. The 1968 airline IFR traffic amounted to a 26% increase over the previous year. General aviation's 1968 IFR activity represented a 24% hike over the 1,935,232 movements in fiscal 1967.

To help evaluate airline versus general aviation IFR traffic, it is noted that as of Dec. 31, 1967, the civil aviation fleet was composed of only 2,595 airline aircraft while general aviation's fleet totaled 114,186. Dividing the total airline IFR operations by the number of airline aircraft indicated 420 IFR movements for each airline aircraft.

Further comparative figures for calendar 1967, latest official records available, showed the airlines' fleet of 2,595 flying 4,136,347 hours and traveling about 1.5 billion miles. The figures represent 451,511 more hours and nearly 300 million more miles than were logged in fiscal 1967.

General aviation's official 1967 fleet logged 22,153,000 hours during the year and covered more than 3.4 billion miles, according to the FAA statistics. In calendar 1966, the general aviation fleet of 104,706 aircraft posted 21,023,000 hours and 3.3 billion miles, based on FAA computations.

A breakdown of airline activities during 1967 indicates that the carriers' increased mileage was primarily devoted to hauling cargo. In 1966, the domestic airlines registered 1.2 billion revenue ton-miles in transporting freight. For 1967, the figure jumped to 1.4 billion. During 1966, the domestic airlines also posted 44,282,000 revenue ton-miles hauling U.S. mail. This figure leaped to 127,907,000 revenue ton-miles in 1967, an increase of nearly 200%.

Fiscal 1968 saw some shifting in the ranks of the nation's 10 busiest airports, with Chicago O'Hare replacing Opalocka, Fla., as the nation's most used

airport. O'Hare, number two in 1967 with 588,527 movements, had 682,141 movements in fiscal 1968. Though dropping to the number two place nationwide, Opa-locka had 622,539 movements in 1968 compared to 596,949 the previous year.

The remaining top 10 airports during 1968 and their number of operations were: Los Angeles, 534,234; Van Nuys, Calif., 507,254; Fort Lauderdale, Fla., 495,130; Long Beach, Calif, 488,627; John F. Kennedy International, 481,092; Miami, Fla., 444,544; Denver, 443,128; and San Jose (Calif.) Municipal, 438,609.

FAA statistics indicate that all but a small amount of the total operations at Kennedy and Chicago O'Hare during fiscal 1968 involved airline movements. Most of the general aviation movements were attributable to air taxi operations hauling passengers to connect with airline flights. Of the 682,141 movements at O'Hare, 614,140 were itinerant airline movements and 62,494 were considered itinerant general aviation movements. Of Kennedy's 481,092 total movements, 407,142 were itinerant airline movements, and general aviation movements were said to be 72,515. The remaining movements at both airports were attributed to the military.

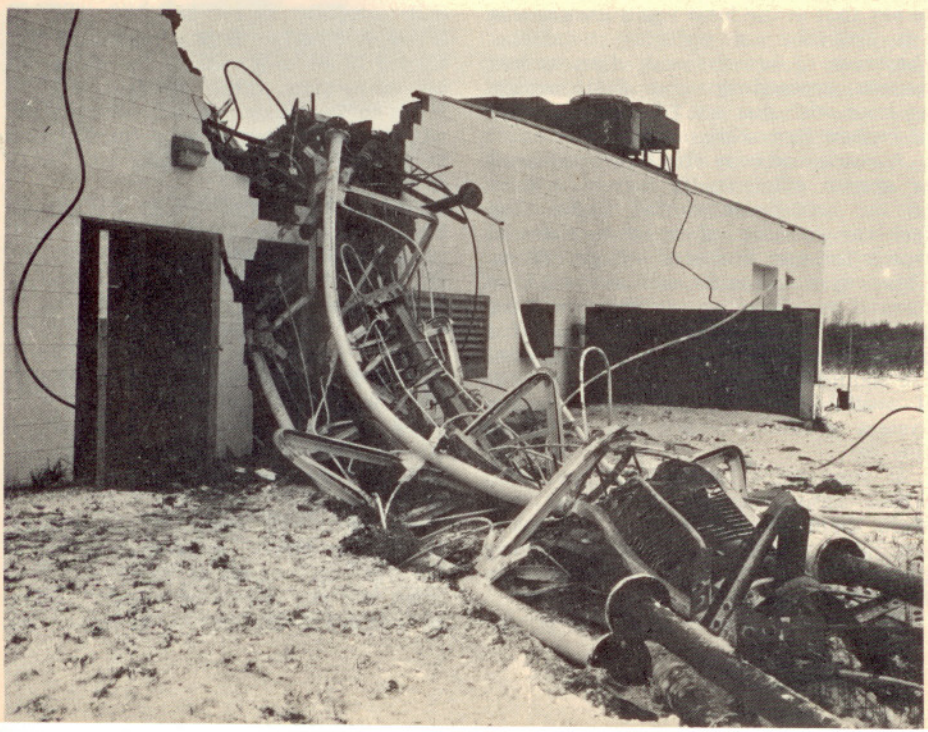
Based on the FAA calculation of 22,153,000 hours flown by general aviation during calendar 1967 and the increase in the fleet during 1968, it is estimated that general aviation logged 24,892,560 hours (average of 198 hours per year for each aircraft over the last two years times estimated 1968 fleet of 125,720 aircraft). It also is estimated that the general aviation fleet during 1968 flew 3,897,320,000 miles (average of 31,000 miles per aircraft flown over past two years times estimated 1968 fleet of 125,720 aircraft).

The current composition of general aviation's fleet can be determined by taking actual shipments from January through October and applying them to official Dec. 31, 1967, figures. Estimates for shipments by types of aircraft were used for the last two months of the year.

As computed, the estimated Dec. 31, 1968, general aviation fleet of 125,720 aircraft is composed of: 42,772 single-engine, 1-3 place; 62,831 single-engine, 4-place or more; 16,494 multi-engine; and 3,623 other types. Comparative figures as of Dec. 31, 1967, were: 39,675 single-engine, 1-3 place; 56,865 single-engine, 4-place or more; 14,651 multi-engine; and 2,995 other types. □

Plane Hits Tall TV Tower, Three Pilots Killed

Photos by Kris Gilbertson, editor, The Rhinelander Daily News



Three private pilots were killed Nov. 17 when their lightplane struck a 1,712-foot television tower nine miles east of Rhinelander, Wis. Killed were Thomas H. Reiminga, 44, (AOPA 366914) and James R. Breeden, 29, both of Kalamazoo, Mich., and Jerome J. Shustrom, 25, Coldwater, Mich.

The accident occurred during a light snowfall as the men were returning from a hunting trip in the Upper Peninsula. The FAA and the National Transportation Safety Board (NTSB) sent investigators to ascertain cause of the accident. Initial reports were unclear on whether the plane first struck one of the tower's guy wires before slamming into the tower, second tallest in Wisconsin.

The lightplane was a 1963 Mooney *Mark 20* and belonged to the Cadillac Company, Coldwater, a firm which manufactures blowers, ventilators, heaters, shutters and controls. Elmer J. Shustrom, father of one of the victims and president and general manager of Cadillac, said he and three pilots had been hunting deer in the Paulding, Mich., area prior to the accident.

On Nov. 17, the three pilots returned to the plane which had been left at Land O'Lakes, Mich., and started for home. The elder Shustrom drove a car carrying most of their hunting gear. He heard of the accident while enroute home.

Preliminary investigation indicated the plane hit the tower about halfway up. The upper portion of the tower supported color telecasting equipment. The upper sections fell across the television station building. Two employees in the building at the time of the incident suffered minor injuries. □

Above Left: *A county deputy sheriff checks wreckage of the Mooney Mark 20 involved in a fatal collision with the television tower in the background. The television tower belonged to station WAEO and is located nine miles east of Rhinelander, Wis.*

Left: *Upper portions of the television tower fell across the station building inflicting minor injuries on two persons inside at the time of the accident. The station owner estimated damage to the tower and station at $1.5 million.*