since World War II, general aviation in the United States has marked three major growth milestones. These were the postwar boom of 1946, the expanded lines of 1959, and last year's dollar volume upsurge. Calendar year 1963 will likely be remembered as the most significant of the three, because of sharp increases in net earnings as well as billings for broad segments of the industry, and the exceptionally bright outlook for the current year.

Sales of business and light aircraft during 1963 registered a 13% gain over 1962's numerical sales, and net retail billings increased by \$20,000,000 to a grand total of about \$204,000,000, according to Aerospace Industries Association. In only one month (February) did lightplane shipments drop below the corresponding month of 1962. December 1963 was the greatest single month for sales in 15 years, seeing 850 units produced, worth nearly \$21,000,000 on the retail market.

Over the last decade, the number of active general aviation aircraft has risen by about one-third, flying hours have increased by some 50%, and number of air miles flown has doubled. At 274 of 277 airports where the Federal Aviation Agency manned control towers last year, general aviation activity accounted for 3,500,000 more movements than scheduled airlines. Out of the country's total of 8,370 airports and landing places, airline operations were conducted at only 700 and were numerically greater than lightplane operations at only 31.

Last year accented a growing trend toward air taxi operations too. The National Air Taxi Conference indicated that mounting numbers of scheduled airline passengers today start or complete their travel in general aviation craft. During 1963 conference members logged more than 51,000,000 passenger miles in lightplanes. Recognition of the importance of this growing segment of aviation was given when the Official Airline Guide for the first time published a special air taxi supplement.

As was expected, production of aircraft for export continued at a high level during 1963. The seven major manufacturers delivered 1,578 export planes worth \$35,172,989 from September 1962 through September 1963. Among the "big three" of general aviation, Cessna led in 1963 production with 3,456 planes in 14 models; Piper was second, with 2,321 aircraft sold; and Beech came third with 1,061 planes.

The FAA estimated almost a 4,000 active plane increase in general aviation during calendar year 1962 and another 5% jump to 91,000 last year. One facet of private flying in which less growth than anticipated was registered, however, was that of certificated pilots. Information received by AOPA as of Jan. 1, 1963, indicated that there were 474,506 pilots of all categories, excluding those licensed for rotor or glider operation only, who held current medical certificates. Later recapitulation by FAA recorded this number

## 1964: General Aviation's Year of Promise

Industry leaders exude confidence as lightplane market brightens in dollar volume department. This year is expected to exceed past records for many aircraft, equipment makers

## THIS IS GENERAL AVIATION

Pilots	Jan. 1963	Jan. 1964
Student	95,870	105,298
Private	149,755	152,209
Commercial	96,047	96,341
Air Transport	20,032	20,269
Total	361,704	374,117
Active Aircraft	Jan. 1963	Jan. 1964 (estimate)
Single-engine,		
4-place & over	41,120	45,000
Single-engine,		
1-3 -place	32,341	34,000
Multi-engine	9,186	10,300
Rotorcraft	967	1,050
Other	507	650
Total	84,121	91,000

Operations during 1963 (estimated in millions of hours)

Business	5.6	
Commercial	2.8	
Instruction	1.8	
Personal	4.1	
Total hours	14.3	

Total general aviation operations at FAA facilities: 19,921,053

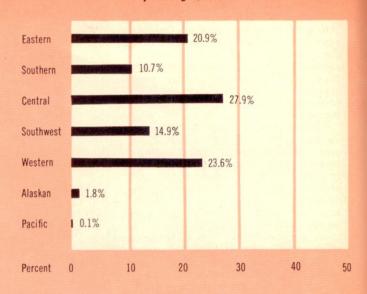
officially at 361,704. By January 1964 there were 374,117 people holding valid medical certificates. Of this total, 11,623 were women and 72% were between the ages of 30 and 49. Current holders of nonpilot FAA certificates—mechanics, parachute riggers, ground instructors, dispatchers, and control tower operators—number 175,-692.

Last year's production showed a continuing trend in general aviation toward high performance aircraft. Of the 7,569 planes built, 1,285 were twin-

engine craft with room for four or more passengers, 4,891 were four- or more-place single-engine planes, and only 1,393 were under four-place.

At least one lightplane builder saw 1963 as a record-setting year. Cessna's commercial aircraft sales hit an allatime high. Innovations in the firm's products were credited with bringing about much of its increased business. Among these were introduction of the "Omni vision" cockpit design in the Cessna 172 and the addition of the Skymaster to the company's line in

As of Jan. 1	Men	Women	Total
1960	350,005	9,870	359,875
1961	338,096	9,966	348,062
1962	342,614	10,246	352,860
1963	351,192	10,512	361,704
1964	362,494	11,623	374,117



mid-year. By late 1963, 67 of the twinengine, "push-pull" models had been delivered.

During 1963 Cessna produced and delivered its 50,000th plane and, in spite of low field inventories, the number of Cessna dealerships increased by more than 100, to bring the total above 500 in 1964.

During the first half of this fiscal year, Cessna continued to forge ahead at a heartening rate. Total sales were \$63,995,000, as compared to \$48,317,000 for the first half of 1963. The largest increase was in general aviation sales, up \$7,738,000 over last year. During the six months ending on March 31, Cessna delivered 2,188 planes, 448 more than a year ago. Company officials reported the outlook for equivalent gains during the second half of this year were excellent. Cessna promised 13 models this year, with prices ranging from \$7,825 to \$76,950.

All seven major general aircraft makers registered similar advances, according to AIA's Utility Aircraft Council. In January 1964, 725 business and utility planes were marketed for \$14,626,000, manufacturers' net billing price, heralding the highest rate of business of any January since 1947. Deliveries were 30% ahead of January 1963, and dollar volume increased by 36%. February's shipment of 696 planes was an increase of 158 over the number shipped in February 1963.

While Cessna led the market, it was by no means the only firm to post phenomenal increases in 1963. Piper showed a total sales increase of 14% over 1962 and a net income increase of 48%. The sharp upturn led company officials to forecast a sales record of \$46,000,000 this year. It numbered two new models-the Twin Comanche and the Cherokee 235-in its 1963 line. Foreign shipments accounted for 547 planes-about 25% of Piper's total

During the first quarter of 1964, Piper posted gains of 40% over the same period last year, and field inventories remained low. For this year the firm is introducing a number of new equipment items-its PRC-4 Auto Nav. OL-1 omni localizer, a new marker beacon, several new autopilot developments, an all-weather antenna kitand has promised early marketing of the Piper Comanche 400.

Beech Aircraft Corporation claimed total sales for 1963 of \$73,863,580, up 9% from 1962. General aviation sales reflected a 25% increase. Even though the firm offered a line of nine business aircraft last year and introduced its new pressurized, twin-turboprop King Air to the corporate market, it viewed 1963 as a year of extensive preparation for greater future deliveries and increased sales.

Since 1960, Beech has expanded its retail sales outlets by 50%. Company officials noted that annual dollar volume sales of the firm have doubled in the past 10 years. They feel that the Federal estimate of a 26% increase in general aviation population by 1970 is far too conservative and are gearing their activities accordingly.

In December, stockholders were told that a sales increase of 25% is seen for this year. The company hopes for general aviation sales of more than \$45,000,000 in 1964, to exceed the 1960 total of \$45,570,254. An indication of Beech's optimism is seen in its work force, which last year increased by 1,200 to a total of 6,600 for this year.

In addition to its regular line, Beech has on the market docket for this year a new Queen Air 80 and an improved model A23 Musketeer.

Mooney Aircraft Company in November drew a comparison between its sales and those of similar retractable gear, single-engine type aircraft of other manufacturers, to indicate to its dealers that they commanded some 40% of the market with the Mooney Super 21, Mark 21, and Master during 1963. The firm delivered 502 planes that retailed for an estimated \$9,043,-

The Super 21 was brought on the market late in 1963, and Mooney reports that it will add the twin-turboprop MU-2 to its line late in 1964.

In electronic equipment too, 1963 was a banner year and 1964 offered even brighter potential. Net sales and earnings of the National Aeronautical Corporation (Narco) for its first quarter of 1964, which ended Feb. 29, were the largest in the company's history. Sales jumped to \$3,807,000, a respectable 59% above the record for the corresponding three months last year. Net income reflected an even healthier 118% increase.

Aerospace Industries Association, in its review of 1963 and estimate for the current year, foresaw a market that will continue to grow at a rapid rate. At the same time, it predicted some significant changes in the nature and activity of general aviation.

Development of new uses for rotary wing aircraft will expand this year, the association predicted, as more corporations adopt them for executive

transports, the building industry recognizes their utility, and as they perform greater service as short haul transportation in congested metropolitan areas. Continuing expenditures will be made for research and expansion, both by manufacturers and dealer-distributors, AIA claimed. Among engineering advances expected are single-engine aircraft with higher performance capability and pressurized cabins, and more turbine-powered business aircraft. Export sales are expected to sustain indefinitely the worldwide dominance of American-built general aviation planes.

Meanwhile, private flying here is gaining in size and impact. The latest FAA report on U.S. Active Civil Aircraft (November 1963) showed that nine states had 10 or more certificated aircraft for each 10,000 people. Alaska led with 64.6 per 10,000. Following in order were Nevada, Montana, Wyoming, Idaho, South Dakota, North Dakota, New Mexico, and Kansas. Fifteen states showed less than three planes per 10,000, with Hawaii having only 1.8, and Kentucky and Massachusetts at 2.2. The U.S. average was 4.6 planes per 10,000 population.

4.6 planes per 10,000 population.

New Jersey ranked first in total active civil aircraft per 1,000 square miles, with 216.3. California led in total number of certificated aircraft, with 10,412 general aviation planes, Texas was second with 6,905, and Illinois was third with 3,754.

General aviation accounted for 64% of all aircraft activity recorded by FAA facilities during 1963. The total of 19,921,053 lightplane operations represented an increase of 15% over 1962, when general aviation chalked up 62% of all activity. Of last year's total light aircraft operations, 11,636,473 were itinerant and 8,284,580 were local.

Itinerant operations is the primary criterion for establishing FAA control towers at airports. Since 1953, largely due to the growth of general aviation, itinerant activity counts have almost doubled. Last year's total of 20,700,000 itinerant operations was an all-time peak. It represented an 8% increase over 1962. During calendar year 1963 seven additional FAA control towers were installed, bringing the total to 277.

General aviation's growing "lion's share" of air activity has been attributed in part to marked increases in business flying, air taxi and charter operations. This has been based on the increasing sophistication of the private flying fleet. In 1958, multi-engine and four-place or large single-engine planes comprised 45% of active general aviation craft, according to FAA. By 1963 these made up 62% of the total fleet.

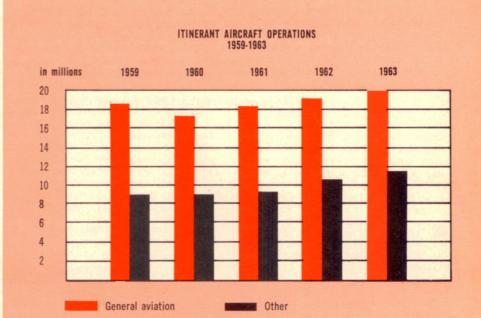
Gains in all aspects but one of private flying were noted in 1963, with an estimated 14,300,000 hours logged. The estimate indicated an increase of 100,000 hours in business flying, 300,000 hours in general aviation commercial activity, and 300,000 hours in personal flying. A decrease of 100,000 hours was indicated in flight

instruction. This was a preliminary estimate, however, and results of a recent FAA survey of general aviation are expected to revise these totals upward.

In all, 1964 appears to the experts to be a bright year for general aviation. Although no 35,000-plus aircraft production record, such as 1946 brought, is expected the industry is felt to be on a more soundly planned and econom-

ically secure footing. Improvements in aircraft safety and utility, built into production over the past several years, have brought about greater public confidence and have added to dollar volume sales.

The Aerospace Industries Association has called 1964 the year of decision. For general aviation, it is a year of opportunity that the industry is geared to fulfill.



## ANNUAL AIRCRAFT SHIPMENTS 1959-1963

Year	Total	Aero Commander	Beech	Cessna	Champion	Mooney	Piper	Others
1959	7689	148	893	3,588	274	182	2,530	74
1960	7588	155	962	3,721	248	172	2,313	17
1961	6778	139	818	2,756	112	286	2,646	31
1962	6697	121	830	3,124	91	'387	2,139	5
1963	7569	114	1,061	3,456	99	502	2,321	16

## **DOLLAR VOLUME SALES**

