eneral aviation industry executives see 1963 as the year of the aircraft-sales "breakthrough" in two important markets—domestic business flying and foreign demand for U.S. aircraft. In both instances, general aviation is gearing itself for an all-out drive to take advantage of these fertile market areas.

In 1962, business flights made up almost half of the hours flown by general aviation in the United States. Therefore, aviation executives feel that the principal market in the area of business flying consists of the middle-level executives of big corporations. One favorable factor is that nine out of 10 plants opened in this country since the end of World War II have been built in cities of less than 50,000 population, and many big companies are establishing branches in communities that lack convenient commercial air services. Plane manufacturers believe that this dispersal of industry should help increase sales to businesses this year.

In the overseas area, many of the leading aircraft manufacturers are busily establishing new outlets at strategic locations. Since U.S.-made aircraft have set the global standard and make up the largest percentage of the world's active business and utility aircraft fleet, manufacturers are understandably preparing themselves for future expansion and development of this lucrative market.

Today's general aviation fleet in the United States now numbers 81,693 aircraft, according to the latest FAA estimates, and this figure is expected to increase to 100,000 during the next five years. [Editor's Note: AOPA's latest count of current active aircraft in the general aviation fleet is 92,500.] While half of the present volume of general aviation flying is accounted for by direct use of utility aircraft by corporations and individual businessmen, the lightplane is also used for a number of other utilitarian purposes. These include farm and ranch activities, cropspraying, industrial power and pipeline patrol, border patrol and geophysical research. The use of aircraft for pleasure and personal reasons accounts for a large volume of flying and is presently placed at 3,500,000 hours annually, by the FAA. This is estimated to grow to about 6,000,000 hours by 1968.

Keeping in step with its growth, general aviation has invested large amounts of its capital in new manufacturing facilities and more modern production machinery. Investment of other money in research and development activities and expansion of both domestic and foreign sales organizations are further indications that the industry is looking to the future with a new sense of optimism.

Despite a unit shipment loss in 1962 compared to 1961, business and utility airplane sales last year still recorded a \$10,000,000 gain over the previous year. Retail value of the aircraft sold in 1962 totaled \$180,000,000, as compared to \$170,000,000 in 1961. The increase in

## **GENERAL AVIATION: 1963**

# Plane Makers Optimistic Over Year's Outlook

Industry predicts steady sales expansion throughout year. Business flying and foreign markets seen as most promising growth areas

value, according to the Aerospace Industries Association, was due to the sale of more powerful, fully instrumented planes although fewer aircraft were sold. The average sale today is about \$25,000, an increase of 25% over the average sale of only five years ago.

With the expansion of foreign outlets and a more determined push on the part of the aviation industry leaders in this area, foreign sales moved upward in 1962 and gave added support to the industry contention that this is one future market with almost unlimited, hardly tapped, potential. The three sales leaders in the general avia-

tion field, Cessna, Beech and Piper, claimed some 92% of aircraft unit sales in 1962, with Aero Commander, Champion, Lake and Mooney accounting for the remaining percentage. A further breakdown of unit sales shows Cessna with 47½% of the total, Beech with 12½% and Piper with 32%. Cessna's percentage included 75% domestic sales and 25% foreign, Beech's total was 82% domestic sales and 18% foreign sales, and Piper listed 72% domestic and 28% foreign.

During 1962, the trio also showed a gain in the number of domestic and foreign outlets. Cessna had 348 dealers

### THIS IS GENERAL AVIATION

### PEOPLE

(With current medical certificates as of Jan. 1, 1963)

	Total	Male	Female
Private and student (Estimated students: 90	292,625	278,534	14,091
Commercial Air Transport Pilots, all categories	151,598 30,283 474,506	149,978 30,227 458,739	1,620 56 15,767

### PLANES

Total registrations as of Oct. 1, 1962	122,390
Air Carrier	2,100
Active general aviation	
aircraft (AOPA estimate)	92,500

#### **OPERATIONS**

Comparison of activity during 1962

	General Aviation	Air Carrier		
Hours flown Estimated passengers Aircraft Movements Airports served by	19,200,000 (AOPA estimate) 13,300,000 (FAA estimate) 84,600,760 (59% of total) 16,422,000 6,914	4,200,000 57,709,000 (41% of total) 7,148,000 565		

#### MONEY

General aviation sales and services are estimated at more than \$1 billion a year.

and distributors in the United States and Canada, and 113 export dealers; Beech had 103 domestic outlets and 72 foreign; and Piper, 44 distributors and 350 dealers, plus 15 overseas dealerships.

Cessna Aircraft Company, now in its 35th year of operation, recorded sales figures for all operating divisions and subsidiaries of \$89,806,000 for the fiscal year ending September 30, 1962. This represented a gain of \$2,152,000 over the 1961 figure of \$87,654,000. Cessna's retail commercial aircraft sales totaled \$84,508,750 with 75% or \$66,803,750 shown in domestic retail sales and 25% or \$17,705,000 in the export market. Unit shipment for 1962 was 3,044 domestic and 805 export.

Cessna also reported a lower earnings figure for 1962 despite the increase in sales volume. However, this was attributed to a number of abnormal expenses during the year including the

improved designs of the 182, Skylane and 210 and the start-up costs of the new Model 205.

The new Cessna Skymaster, a sixplace, tandem twin-engine aircraft with push-pull engine configuration, is the most interesting in the firm's 1963 line-up and deliveries of the Skymaster will begin this spring. Another new aircraft for 1963 will be the Model 205, a six-place, single-engine aircraft introduced last August and already finding good acceptance.

An innovation which helped the Model 182 and the *Skylane* set new sales records for 1962 will be incorporated in the Model 172. This is the "Omni-Vision" wrap-around rear windshield which will be available on all four models of the 172.

Piper Aircraft Corporation showed sales for fiscal 1962 of \$33,340,156, an increase of 6% over the previous year's \$31,409,966. Retail sales figures for

Piper craft were \$30,336,727 in domestic shipments and \$8,460,772 in export products.

However, despite an increase in dollar sales for fiscal 1962, the unit volume was down almost 10% from 1961. Piper sold a total of 2,233 units for the year, 1,706 in the United States and 527 to export outlets. This decrease in unit figures was largely due to the cutback of Piper Colt production, a move, Piper officials say, which was made to enable Piper distributors to put emphasis on sales of the Cherokee, a fourplace, single-engine aircraft offered in three different models.

Major project at Piper's Lock Haven, Pa., plant is the development of a light twin which will be known as the *Twin Comanche* because it utilizes the components of the single-engine plane. Work is also continuing at the Vero Beach, Fla., location on the Fiberglas and plastic *Papoose*, and further in-

## TOTAL AIRCRAFT OPERATIONS AT AIRPORTS HAVING FAA TRAFFIC CONTROL SERVICE Fiscal Years 1954-1962



formation on the flight characteristics of this plane are expected to become available later this year.

Beech Aircraft Corporation reported earnings, after taxes, of \$2,952,614 in fiscal 1962, a 15% gain over net earnings of \$2,562,102 in fiscal 1961, indicating that the company's cost-control programs have been rewardingly effective inasmuch as total sales of \$67,887 in fiscal 1962 were about 6% below the 1961 fiscal year total sales of \$72,019,890.

Retail sales figure for Beechcraft commercial aircraft for fiscal 1962 was approximately \$63,000,000. Domestic sales accounted for \$41,000,000 and export sales for \$12,000,000 with 788 units shipped to domestic outlets and 115 units to foreign buyers.

During 1962, Beech introduced two new models which show signs of becoming best sellers in their respective classes. The four-place Model 23 Musketeer, selling for \$13,300, received good industry response when it debuted last year and orders on hand for this aircraft extend into mid-1963. The Queen Air twin-engine 80, sister to the Queen Air 65, and the new Beechcraft Super H18 also promise to exceed 1962 delivery figures, according to Beech officials.

Looking ahead for the next six years, FAA's forecast reflects a generally higher production level for general aviation. Annual fluctuations in output appear likely, say FAA sources, due to the heavy dependence of the industry on the corporate and business flying market. Thus, any change in business cycles during any given year will also be reflected in the production and sales of general aviation manufacturers.

In 1962, FAA indicates that 81,693 lightplanes spent 13,300,000 hours in the air, and this year the Agency estimates some 84,600 aircraft will fly 13,900,000 hours. Projecting further, FAA expects general aviation to expand to 99,000 planes by 1968 and log approximately 17,100,000 hours.

FAA's survey also indicates that business flying remained the largest category of general aviation flying during 1962. Business aircraft flew 5,500,000 hours during the past year as compared with 3,500,000 hours for personal flights; 2,400,000 commercial hours; and 1,900,000 instruction flying hours. Sizable increases are indicated for areas in this category with the possible exception of instruction hours flown. In this area, FAA predicts only a 100,000-hour increase by 1968 whereas in the areas of business, commercial and personal flying, the forecast is for increases to 17,100,000, 3,000,000 and 5,400,000 hours respectively.

Production of general aviation aircraft will continue to be largely pistonengine aircraft but with the output of turbine-engine aircraft expected to increase somewhat in the latter forecast years. Emphasis will be on the larger single-engine planes and multi-engine craft as manufacturers concentrate more efforts on the business field. Production of smaller single-engine models should remain at a fairly constant level. An estimated drop in the cost of helicopter operation will spur the sales of rotary wing aircraft, according to helicopter industry spokesmen, but costs must be whittled down even further—to eight cents per available seat-mile—before the 'copter can get its real share of the short haul market, experts say. Flying activity by FAA region

showed a gain in all regions with the largest advance in hours flown reported by the Western region. FAA computations indicate that use will continue to increase, with the Western region leading the expansion with an expected additional 1,100,000 by 1968. The Southwest and Central regions are also expected to show considerable gains for the next six-year period.

### 10-Year Review of FAA Air Traffic Workload (General Aviation)

Fiscal Year	Total Aircraft Operations	General Aviation	Percent of Total	Percent of Change
1953	16,214,716	7,626,951	47	<b>— 16</b>
1954	17,261,461	7,755,500	45	+ 2
1955	18,800,577	8,321,382	44	+ 7
1956	20,383,867	9,107,226	45	+ 9
1957	23,728,374	11,037,490	47	+ 21
1958	26,297,687	13,228,714	50	+ 20
1959	26,812,001	14,669,555	55	+ 11
1960	26,367,475	14,989,159	57	+ 2
1961	25,623,718	14,925,312	58	25
1962	27,415,508	16,422,000	60	+ 9

### HOURS FLOWN IN GENERAL AVIATION BY TYPE OF FLYING FAA REPORT

(In millions)

Fiscal Year	Total	Business	Commercial	Instruction	Personal
1958	11.3	5.1	2.1	1.9	2.2
1959	11.9	5.3	2.2	2.0	2.4
1960	12.1	5.3	2.2	1.8	2.8
1961	12.6	5.4	2.3	1.8	3.1
1962	13.3	5.5	2.4	1.9	3.5
1963 (est.)	13.9	5.7	2.5	1.9	3.8

### HOURS FLOWN IN COMMERCIAL AVIATION FLYING FAA REPORT

(000 omitted)

Total	Agricultural	Industrial	Air Taxi/Charter
2,100	870	560	670
2,200	875	505	.820
2,200	883	430	887
2,300	892	458	950
2,400	900	475	1,025
2,500	920	500	1,080
	2,100 2,200 2,200 2,300 2,400	2,100     870       2,200     875       2,200     883       2,300     892       2,400     900	2,100     870     560       2,200     875     505       2,200     883     430       2,300     892     458       2,400     900     475

Air traffic activity at FAA terminal and enroute facilities is expected to reflect a slowing rate of growth in air carrier activity, further expansion in general aviation flying, and a continuing decline in military flights.

Itinerant and local aircraft operations at airports with FAA traffic control service are expected to increase from the 1962 total of 27,400,000 to 35,500,000 operations in fiscal year 1968. The main growth will be provided by the continuing expansion in the volume of general aviation flying and the commissioning of new towers largely at general aviation airports.

IFR activity of the general aviation fleet is expected to increase rapidly as more sophisticated aircraft enter the picture. Flight services provided by FAA flight service stations and combined station/towers will also show significant gains during the forecast period.

Total aircraft contacted are expected to increase from 7,000,000 in 1962 to

8,700,000 in 1968, reversing the downtrend which has been experienced since 1958, FAA studies predict. VFR aircraft contacted should continue its growth of recent years, particularly general aviation aircraft which account for 80% of this activity. With all centers now geared to serve all aircraft except minimum-equipped aircraft, the decline in IFR-DVFR aircraft contacted is expected to be more gradual in the future and should eventually level off.

The most rapid increase in any one phase of FAA flight activity is in flight plans filed. The marked increases recorded during the past two years in large part resulted from the transfer to FAA of the functions of six military flight service centers in December 1960. As a result of this transfer of activity, total flight plans filed at FAA facilities are expected to be 3,700,000 in 1963 and rise to a total of 4,600,000 by 1968.

The continued expansion of general

aviation is related directly to the continued existence and growth of adequate aviation facilities. Hence, the ability of the airport system to keep pace with over-all aviation growth is one of primary importance. The FAA's National Airports Plan outlines the requirements for these facilities for fiscal years 1963-67. This document points out the necessity for maintaining existing landing areas wherever possible and for creating new, conveniently located airports at budding business centers or at existing industrial and residential areas where the need for additional general aviation and airline service is justified.

A total of \$74,283,719 has been allocated by the FAA for the construction and improvement of 419 airports under the Federal Airport Act for fiscal year 1963. FAA sources claim that this is the largest allocation in the history of the airport program and was developed from requests by local communities amounting to \$164,692,892. The communities will match the Federal grants

generally on a 50-50 basis. Of the 419 airports receiving Federal aid, 202 are for general aviation use exclusively. Included in this number are 46 new airports and improvements to 156 existing ones. Federal money for these projects totals \$18,688,915. The remaining 217 facilities are used by both general aviation and the airlines. Funds spent in this area, \$55,594,894, are for four new airports and improvements to 213 others. At 391, or 93% of the airports included in the program, the number of general aviation operations is larger than airline operations at those airports. Of the 419 airports receiving Federal aid, 109 or 26% are being allocated money for the first time. This includes the 50 new airports and improvements at 59 existing fields. A total of 94 general aviation airports are included in the 109 facilities.

During the past year, emphasis was placed on adding or improving fire and crash facilities as reflected in the allocation of money to 30 locations to construct buildings for housing fire and rescue equipment. A breakdown of the complete Airport funds program shows \$39,009,801 (52%) earmarked for the construction and improvement of runways and taxiways; \$17,718,303 (24%) allotted for acquiring land for clear zones and for airport development; and the remaining money for lighting, obstruction removal and other safety items.

In retrospect, 1962 showed signs of a general upward movement throughout the aviation industry. Sales were up, hours flown increased, a number of new airport facilities were created and the anticipated move by manufacturers into the business flight field and the overseas market became a reality. Increased public awareness of the benefits of general aviation as an integral part of the business community should insure a continuing growth pattern in all aviation areas for 1963 and for the years ahead.

### ANNUAL SHIPMENTS OF GENERAL AVIATION AIRCRAFT

(Companies reporting to the Utility Aircraft Council, AIA)

Year	Unit Total	Aero Commander	Beech	Cessna	Champio	n Mooney	Piper	Others	Total Retail Value
1958	6,414	97	694	2,926	296	160	2,160	79	135,916,000
1959	7,689	148	893	3,588	274	182	2,530	74	173,168,000
1960	7,588	155	962	3,721	248	172	2,313	17	201,626,000
1961	6,778	139	818	2,756	112	286	2,646	31	170,000,000
1962	6,697	121	830	3,124	91	387	2,139	5	180,000,000

### ACTIVE GENERAL AVIATION AIRCRAFT BY TYPE OF AIRCRAFT

(FAA REPORT)

As of January 1	Total	Multi-engine	Single-engine 4-place and Over	All Other	Turbine- powered Aircraft	Rotorcraft
1958	65,289	5,036	23,751	36,502		344
1959	67,839	5,416	26,170	36,253		437
1960	68,727	6,034	27,301	35,392	77	520
1961	76,549	7,243	34,327	34,979	114	626
1962	81,693	8,200	38,000	35,493	150	750
1963 (est.)	84,600	8,900	40,000	35,700	200	850