A projected increase in total flight activity plus a significant improvement in the industry's overall financial posture highlight calendar 1972

1973 general aviation

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■■ You might say, if you'll pardon the play on words, that 1972 was "The Year of the Balloon" for general aviation.

Almost everything associated with general aviation was on the upswing in 1972, including new aircraft sales, industry profits, and proposed new mandatory equipment requirements. On the whole, the industry itself continued its rebound from the dark months of late 1970 and early 1971 [Jan. 1972 PILOT, page 41].

As the overall economy improved, new life seemed to surge into the aviation industry in general, and general aviation in particular. Estimates of new general aviation aircraft shipments for calendar 1972 indicate nearly 10,000 new aircraft will have run off the assembly lines. This is a considerable improvement over the 7,000-some-odd aircraft manufactured and delivered in both 1970 and 1971.

But there was also an increase in the number of Terminal Control Areas (TCA) and a proposed major rewrite of Part 61 of the Federal Aviation Regulations (FAR), which governs airman certification, that headlined FAA regulatory action. At year's end, FAA also was on the verge of adopting a standard traffic pattern rule for nontower airports. The traffic pattern rulemaking was initiated at AOPA's request and it would establish standard pattern altitudes and pattern entry procedures. [Oct. 1972 PILOT, page 26].

Legislatively, a major change in the matching-fund formula spelled out in the Airport Development Aid Program (ADAP) cleared congressional hurdles, only to receive a Presidential pocket veto. [See accompanying article, page 78, for a rundown on 1972 Congressional actions—Ed.]

The so-called "price of admission" to selected parts of the airspace undoubtedly is also on the way up. This month's editorial (page 7) comments on the trends of this "price of admission." FAA has reissued its controversial radar-beacon rulemaking, which, if adopted without major change, would require a transponder and automatic altitude reporting equipment for admission to selected areas [Dec. 1972 PILOT, page 66; Nov. 1972 PILOT, page 36; June 1972 PILOT, page 8].

Terminal Control Areas (TCA) cropped up like so much clover during 1972 as FAA officially issued rulemaking aimed at establishing additional TCAs in San Francisco, Boston, Miami, and Dallas. At PILOT press time, however, the San Francisco TCA was the only new one formally adopted [see page 101]. With the four TCA proposals issued in 1972, FAA has now either started action on or has implemented TCAs at all locations originally scheduled for Group I TCAs.

FAA has also proposed elimination of the airport traffic area speed limit at the principal airport in all established TCAs in favor of the 250-knot limit that applies to all aircraft below 10,000 feet [Dec. 1972 PILOT, page 69; Oct. 1972 PILOT, page 8].

In addition to the proposed rewrite of FAR Part 61, FAA last year asked for comments on the advisibility of rewriting FAR 91, the "rules of the road" [Sept. 1972 PILOT, page 114; June 1972 PILOT, page 84]. FAA also withdrew its mandatory flight plan proposal, which had drawn a good deal of flack from the industry [Sept. 1972 PILOT, page 8; April 1972 PILOT, page 58]. This latter proposal was originally introduced in 1971 [Dec. 1971 PILOT, page 9].

As proposed by FAA, the new FAR Part 61 changes would include requirements for a biennial "flight review" and would set increased minimum flight-time requirements for commercial and instrument-rating candidates [Sept. 1972 PILOT, page 8]. The recurrent training provisions of the NPRM were triggered by recommendations contained in the General Aviation Safety Report filed by Assistant Secretary of Transportation for Safety and Consumer Affairs

This Is U.S. General Aviation 1973*

	As Of Jan. 1, 1972	As Of Jan. 1, 1973
Aircraft:		
Total	135,000	139,000
Single-engine, 1–3-place, piston	46,095	47,265
Single-engine, 4–place or more, piston	66,005	67,735
Single-engine turbine (turbojets, turboprops)	110	118
Multi-engine, piston	16,200	16,800
Multi-engine turbine (turbojets, turboprops)	2,390	2,581
Rotorcraft	2,600	2,800
Gliders, balloons, etc.	1,600	1,700
Airmen:		
Total	747,000	792,000
Student	200,000	218,000
Private	311,000	328,000
Commercial	190,000	198,000
Airline transport	35,500	36,500
Helicopter (only)	7,000	7,300
Glider (only)	3,300	3,800
Other pilot	—	—
General Aviation Hours Flown:		
	(Calendar Year 1971)	(Calendar Year 1972)
Total	27,500,000	35,750,000
Business	5,802,500	7,579,000
Commercial	3,998,500	5,183,750
Instructional	7,444,250	9,652,500
Personal	8,390,250	10,903,750
Other	1,864,500	2,431,000

* FAA's official figures for aircraft by size and seating capacity for calendar 1970 and calendar 1971 still had not been compiled as of December 1972. General aviation fleet size and breakdown are based on FAA projections for calendar 1972 and percentages from 1969. Airmen certificate totals are FAA projections. The breakdown of general aviation hours uses a revised FAA projection for hours flown during Fiscal Year 1972. The FAA projection was revised in light of the IRS aviation fuel consumption figures related in the accompanying article.

Student Starts By Month
1969–1972

Month	1969	1970	1971	1972
January	8,677	6,856	8,131	7,515
February	8,094	7,706	7,458	7,936
March	9,405	9,871	10,341	10,176
April	11,766	10,298	9,406	10,445
May	10,990	9,341	10,490	10,495
June	12,811	11,799	11,451	11,174
July	14,512	13,966	13,146	10,366
August	13,965	14,290	13,785	15,007
September	11,751	12,114	12,314	10,850
October	14,620	13,095	12,338	12,450*
November	8,363	9,297	10,853	9,750*
December	7,972	8,238	8,318	8,550*
Totals	132,926	126,871	128,031	124,714

Source: FAA
* October, November, and December starts are based on AOPA estimates.

general aviation

(Continued from previous page)
Benjamin O. Davis [Nov. 1971 PILOT, page 56].

The Part 61 proposal (NPRM 72-9) would require all pilots to have a proficiency flight review conducted by a certificated flight instructor every 24 months. Training requirements for private pilot candidates would also be tightened to include more night checkout time plus mandatory experience at tower controlled airports. The proposal was still under review by FAA at press time.

In other sundry rulemaking during 1972, FAA adopted an NPRM revising the rules governing special VFR (SVFR) flight. The new rule limits SVFR flights at night to airmen and aircraft that are certificated for IFR flight [July 1972 PILOT, page 8; Jan. 1972 PILOT, page 78]. FAA also issued an NPRM that would require minimum published visibility values to exist at airports with official weather reporting points before instrument approaches could be initiated. No change, however, was proposed for those airports with published approaches but no weather observer [Oct. 1972 PILOT, page 106].

The High Density Terminal Area (HDTA) quota rule, as expected, was extended by FAA through October 1973 [Dec. 1972 PILOT, page 92; Nov. 1972 PILOT, page 8]. The rule gives FAA continuing authority to establish operations quotas for the three New York City airports (Newark, LaGuardia, and Kennedy International), Chicago's O'Hare International, and Washington (D.C.) National.

On the happier side, one of AOPA's long-time goals for general aviation blossomed in 1972. The En Route Weather Advisory Service (EWAS) was officially implemented at a series of West Coast outlets [Dec. 1972 PILOT, page 90; Oct. 1972 PILOT, page 40].

Seattle, Portland, Ore., Oakland, Calif., and Los Angeles are the first of a proposed 44 outlets that will blanket the nation by the end of Fiscal Year 1976. As currently planned, all a pilot will

U.S. Landing Facilities*
1960–1972

	Total U.S. Facilities	By Ownership		Paved Airports		Unpaved Airports	
		Public	Private	Lighted	Unlighted	Lighted	Unlighted
1972**	12,348	4,447	7,901	2,946	1,337	849	7,218
1971	11,538	4,284	7,254	2,717	1,169	882	6,770
1970	11,195	4,244	6,951	2,618	1,112	881	6,523
1969	11,050	4,155	6,895	2,548	1,102	882	6,518
1968	10,470	3,986	6,484	2,415	938	897	6,220
1967	10,126	3,830	6,296	2,235	874	914	6,095
1966	9,673	3,630	6,043	2,062	797	926	5,888
1965	9,566	3,570	5,996	1,977	770	901	5,918
1964	9,490	3,644	5,846	1,888	732	885	5,985
1963	8,814	3,451	5,363	1,775	676	897	5,466
1962	8,084	3,178	4,906	1,657	698	824	4,905
1961	7,715	—	—	1,499	599	800	4,857
1960	6,881	—	—	1,364	529	—	—

Source: FAA
* Includes all U.S. civil and joint-use airports, heliports, and seaplane bases as of Sept. 1, 1972. Figures for 1971 are as of June 1, 1971. All other figures as of December 31.
** As of Sept. 1, 1972, FAA reported 7,162 of the 12,348 landing facilities were "open to the public without restriction."

have to do is tune to 122.0 MHz for current en route weather advisory information.

Flight Service Station (FSS) modernization, however, didn't fare as well as EWAS during 1972, and the unofficial word at the end of the year was that the FSS modernization plan, first conceived in 1967, was now dead. That report took some of the luster off the EWAS implementation. FAA and Department of Transportation (DOT) officials, reportedly at the request of the White House Office of Management and Budget (OMB), were completing a new study of FSS functions at year's end.

The new FSS modernization study, according to governmental sources, covers the role and value of the FSS network. Much effort will be expended, FAA said, on automation of the FSS functions in an effort to get the system's cost down. Various automation and station reconfiguration projects will be undertaken at Raleigh-Durham, N.C., and Atlanta [Jan. 1972 PILOT, page 8].

As predicted in early 1972, FAA did request comments last year on a proposed schedule for implementation of 25 MHz-spaced communications channels in the VHF aeronautical band [March 1972 PILOT, page 8; Feb. 1972 PILOT, page 55]. In responding to the FAA request, AOPA described the proposed schedule as "impractical from both an economic and operational standpoint" [June 1972 PILOT, page 55].

The proposed amendments to the Airport Development Aid Program (ADAP) matching formula, which were contained in U.S. Senate Bill 3755, would have raised Uncle Sam's share of eligible projects to 75% at medium, small, nonhub, and general aviation airports. The federal share for equipment required by FAA's new safety and security rules for air carrier served airports also would have jumped to 82% The federal share is presently 50% for both categories.

In pocket vetoing the measure, President Nixon described the proposal as budget busting. The President's "Memorandum of Disapproval" said the bill was "inconsistent with sound fiscal policy."

While the FAA rulemakers and Congressional legislators were plying their respective trades in Washington, D.C., airmen and manufacturers busied themselves in rebounding from last year's off-peak activity index. Operations recorded by FAA control towers, however, showed their third straight decline. Only firm traffic figures available at press time were for Fiscal Year 1972, which ended June 30.

According to the FY 1972 figures, FAA control towers recorded 53,620,690 operations, down more than 11% from the previous year's 54,249,954. Some observers felt, however, that when figures for calendar 1972 are compiled operations will show an increase over the same period in 1971.

Internal Revenue Service (IRS) figures on aviation gas consumption for the first three quarters of FY 1972 indicated general aviation fuel consumption was up some 130% over the same period in FY 1971. During the period ending March 31, 1972, the general aviation fleet burned some 432 million gallons of fuel.

Despite the reduction in the number of recorded operations, the aircraft and accessory manufacturing industry was busy during 1972 getting geared up to meet an increasing demand for new aircraft and equipment. Based on available information, it is projected that more than 9,600 new aircraft will have been shipped in calendar 1972, with an estimated retail value of more than $530 million. Quite a turnaround from the 7,377 aircraft produced and shipped in calendar 1971.

The growth of general aviation equipment sales continued the improvement trend that started in July 1971. During the first 10 months of 1972, reports filed by general aviation equipment manufacturers indicated an average

(Continued on next page)

Air Traffic Recorded By FAA Control Towers 1960–1972*

	Number of Towers	Total Aircraft Operations	(Percentage) Airlines	General Aviation	Military
1960	229	25,773,990	28%	57%	15%
1961	254	26,300,767	27%	59%	14%
1962	270	28,200,570	25%	62%	13%
1963	277	30,976,773	24%	64%	12%
1964	278	34,194,659	22%	67%	11%
1965	292	37,870,535	21%	70%	9%
1966	304	44,952,806	18%	75%	7%
1967	313	49,886,840	19%	74%	7%
1968	322	55,292,035	19%	75%	6%
1969	328	56,231,821	19%	75%	6%
1970	331	56,181,465	19%	75%	6%
1971	343	54,249,954	19%	75%	6%
1972	357	53,620,690	19%	75%	6%

Source: FAA

* All figures, except those for 1970 through 1972, are as of December 31. Figures for 1970 through 1972 are based on the fiscal year, which ended June 30. General aviation operations at FAA-tower airports over the past decade generally have consisted of about 55% itinerant and 45% local movements.

general aviation

(Continued from previous page)

30% production and delivery improvement over the first 10 months of 1971. As a matter of fact, the General Aviation Manufacturers Association (GAMA) reported that shipments of general aviation aircraft through October 1972 had exceeded the total 1971 shipment figure. And October 1972 was the best October since 1969, representing the 16th consecutive month in which shipments were higher than they were for the corresponding month in the previous year.

Moving to meet the increased demand, a number of manufacturers announced increases in production rates during 1972, and Cessna Aircraft Company, Wichita, Kan., announced introduction of its 1973 model line three months early [Nov. 1972 PILOT, page 55].

Despite the industry's improved financial climate in 1972, some firms, including one giant in the aerospace field, continued to have trouble. In late 1972 Grumman Corporation and American Aviation Corporation announced plans to merge their commercial aircraft operation [Dec. 1972 PILOT, page 92]. The merger followed continued rumors about cash problems at Grumman. Also Britten-Norman, Ltd., was eased out of its financial bind by The Fairey Co., Ltd., a British conglomerate. Fairey purchased the troubled firm [Dec. 1972 PILOT, page 92; March 1972 PILOT, page 89; Jan. 1972 PILOT, page 41]. Then there was Radair, Inc., a Seattle-based avionics firm, which initiated federal bankruptcy proceedings [Dec. 1972 PILOT, page 92].

As the old saying goes, "The rich get richer, and the poor get poorer." And, to prove the rule, two of the so-called "Big Three" general aviation airframe manufacturers—Cessna, Beech Aircraft Corporation, and Piper Aircraft Corporation—posted figures very much in the black in 1972. One Wall Street observer estimated that general aviation aircraft

General Aviation Shipments
1960–1972
(Calendar Years)*

As Of Dec. 31	Production In Units	Estimated Retail Value**	Total Active U.S. Fleet
1972	9,636	$532.6 million	139,000
1971	7,377	$407.2 million	135,000
1970	7,297	$430.4 million	131,407
1969	12,581	$632.2 million	130,806
1968	13,749	$553.2 million	124,237
1967	13,536	$453.1 million	114,186
1966	15,723	$514.3 million	104,706
1965	12,053	$401.6 million	95,442
1964	9,459	$250.6 million	88,742
1963	7,628	$193.3 million	85,088-
1962	6,797	$172.4 million	84,121
1961	6,943	$156.6 million	80,632
1960	7,588	$190.5 million	76,549

* 1972 figures are based on actual shipments through October and an estimate of November and December shipments. In recent years, about 25% of the yearly shipments have been for export. This, along with the usual attrition, accounts for the difference in total estimated 1972 shipments and the estimated increase in the active fleet.

** Dollar values include all aircraft shipments by manufacturers reporting to the General Aviation Manufacturers Association (GAMA). Retail value for 1972 sales is estimated on the basis of the 1971 average unit cost plus a 2% inflationary increase for the 12-month period. The 1970 base was figured on a 33% markup and 5% negotiated discount, which has been described as a "typical" general aviation aircraft pricing formula by an accounting firm.

and avionics manufacturers would split up some $20 million in after-tax earnings for 1972.

Closing out its fiscal year in September, Cessna led the general aviation industry in total unit deliveries for the 17th consecutive year. The Wichita, Kan., giant pumped out 4,653 new aircraft during its fiscal year. "This was the third straight year that Cessna delivered more than 50% of all business and personal aircraft," according to Senior Vice President Robert L. Lair. Cessna's fiscal 1972 sales reached $248.4 million, up from $168.4 million during fiscal 1971. After tax earnings were reported as $13.5 million, nearly $2 per share.

On the other side of Wichita, Beech reported earnings of $1.52 per share on sales of $174.5 million during its fiscal year, which also closed Sept. 30, 1972. The firm's directors voted a 16½-cent cash dividend, marking the company's 97th consecutive cash dividend.

Piper, on the other hand, was hit hard by flooding associated with Tropical Storm Agnes, which inundated the firm's Lock Haven, Pa., facility [Sept. 1972 PILOT, page 44]. Piper reported earnings of $1.8 million on total sales of $74.6 million for fiscal 1972, but the flooding loss of nearly $7 million resulted in a net loss of $4.9 million, or just over $3 per share. The total flood loss at Piper was $20.7 million and the net $6.8 million loss includes consideration of insurance settlements and salvageable material and tax credits. Despite the flood loss and a crippling 14-week strike at its Lock Haven plant during the fiscal year, Piper said its sales increased 18% in 1972.

The improved fiscal health of Gates Learjet Corporation, also based in Wichita, Kan., was also indicative of the improved health of the business jet market. Gates reported sales of $59.2 million during fiscal 1972 and a record net profit of $8.65 million. Gates recorded a net $4.6 million loss for the previous year.

Most economic observers said they felt general aviation's recovery trend in 1972 had already matured, and the broad, overall future upward trend would level out.

Looking into 1973, and recognizing that crystal-ball gazing is a dangerous business, projections from one analyst were that some 13,000–plus new aircraft valued at nearly $700 million would be produced and delivered in fiscal 1973. This particular projection compares with a current all time high of 15,723 aircraft set in 1966 for new aircraft deliveries.

Despite the improved financial picture, glowing projections for super growth at an accelerated rate could not be found. The manufacturers and economic observers, who were burned badly in the 1969–1971 slump, expressed a belief that general aviation sales would build steadily, but at a slower percentage growth rate than in the just-completed year. All seemed to indicate a picture of more stable growth, with a firm measure of staying power. □