

SAFETY CORNER

Fatal Accidents Down in 1958

While accident reports can't ever be good news, there is a glimmer of good mixed with the bad in FAA's recently published statistical analysis of general aviation accidents occurring in 1958. The total number of accidents was 4,135—up 10% over 1957—but fatal accidents were 11.5% fewer in 1958 than in 1957. If this means more pilots are subscribing to the doctrine of the "smash" instead of the "crash," and if more noninstrument pilots running into weather are taking their chances in cornfields, then things are looking up.

We estimate that hours flown by general aviation in 1958 were 11,500,000 compared with 10,938,000 in 1957. This estimated 5% increase in hours flown helps only a little to offset the 10% increase in the combined figure for fatal and nonfatal accidents, but there are other glimmers of good. Pleasure flying activities normally swell the figure for general aviation fatalities, as will be seen in Figure 2, but fatal accidents in this category were down 12.6% in 1958 as compared with 1957. There was a similar drop in the number of fatal accidents in most other groups.

Before safety experts begin to crow, we might as well admit to ourselves that weather accidents accounted for 33.2% of all fatal accidents in 1958. Weather is still the great danger. There has, however, been some confusion in the past in calculating the number of "weather" accidents in general aviation. FAA told The PILOT that until this year, staff members preparing the annual statistical analysis read all accident reports to determine if weather was in any way a causal factor. For 1957, they recorded that weather was a factor in accidents 1,219 times. So from time to time, both officials and the public have stated that there were over 1,200 general aviation weather accidents in 1957, and weather was reported by the CAA Statistical Handbook to have been a causal factor 1,260 times in 1957. The fact is that this figure lumped together not only factors like low ceilings, clouds, fog, precipitation—"weather" conditions, but also occurrence of crosswind, downdrafts and turbulence and more than one "weather" item may have been recorded for a single accident. In other words, an accident caused when a pilot was unable to handle crosswind would have been called a weather accident, though the day may well have been CAVU. Wind was counted 527 times in this total of 1,219 weather items.

The 1958 report eliminates some of this confusion, according to FAA. This time, field investigators attached a code number to the accident report when in their opinion, the accident was in any way caused by weather, and it was so classified in the statistical analy-

sis. Weather is here understood in the commonly accepted sense of instrument conditions. In Figure 1, we subtracted the factors of downdraft, turbulence and wind from the 1,219 figure for "weather" as it was used in the 1957 analysis, and the resulting sum of 645 represents the number of times low ceil-

tion still has an educational job to perform within its own ranks.

The accident analysis provides a breakdown on accidents by phase of operation that merits some meditation. Landing operations were in process when 2,163 of the 4,135 accidents took place. Another 732 accidents occurred en route; 797 occurred on takeoff; and 378 happened when the aircraft was being taxied. Ground operations accounted for another 65.

Study of the number of accidents occurring in the five states having the largest numbers of active general aviation aircraft—California, Texas, Illi-

FIGURE 1

*General Aviation Accidents, 1957 and 1958

(Aircraft 12,500 pounds and under)

Year	Total No. of Accidents	Fatal Accidents	Fatalities	Occurrence of weather as a cause factor	Fatal Weather Accidents
1957	3,758	371	721	645	268
1958	4,135	328	640	487 ¹	109 ²
Change	+377 (10% increase)	-43 (11.5% fewer)	-81 (11.2% fewer)		

* All figures are exclusive of agricultural flying accidents

¹ 11.7% of all accidents

² 33.2% of fatal accidents

ings, fog, clouds, rain, thunderstorms and snow, sleet or hail were counted as cause factors in 1957.

This is pointed out to keep the record straight, for without such an explanation, a casual glance at comparative FAA figures for the weather factor in accidents during 1957 and 1958 might lead us to hope our safety propaganda was indeed paying off. The fact that there were still 109 fatal weather accidents in 1958 proves that general avia-

tion, Ohio and New York (in that order)—shows that Illinois' splendid safety campaign is indeed paying off. Among these "big five," the ratio of fatal accidents to active registered general aviation aircraft in the state is lowest in Illinois, followed by Texas, New York, Ohio and California. Of course, accidents may often involve out-of-state aircraft, so that the comparison in terms of state-registered air-

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FIGURE 2

Accidents By Type of Flying

	Fatal Accidents		Total Fatal and Nonfatal	
	1957	1958	1957	1958
Instructional				
Dual	10	7	188	215
Solo	39	34	791	855
Non-commercial				
Pleasure	221	193	1,943	1,949
Business	46	42	438	597
Corporate	10	6	70	108
Other	14	6	101	60
Commercial				
Passenger	7	12	55	77
Ferry, Cargo and other	16	15	89	182
Public				
Federal	1	3	16	24
Municipal	2	—	2	1
State	—	1	5	12
Miscellaneous	5	9	60	57

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craft is not a totally accurate revelation of safety practices within the state. It offers the only convenient measure we have at the moment, however, and can be expected to average out fairly well.

A number of persons express the view that accident figures and accident reports should somehow be kept under an imaginary hat lest they frighten the nonaviation public and damage the position of general aviation. Unfortunately, only by looking squarely at our record, by finding the causes and the remedies can we rewrite the record as we would like it to read. We in general aviation know that the modern airplane is a safe, trustworthy machine, that our navigational aids can take us safely anywhere in this country. In the majority of cases, it is when we, as pilots, become careless or attempt to

FIGURE 3

Ratio of Fatal Accidents To Registered General Aviation Aircraft In Selected States

State	Numbers of Planes ¹	Total Accidents	Fatal Accidents	Fatal Accidents per 1,000 registered aircraft
California	7,820	452	50	.0063
Texas	5,374	308	17	.0031
Illinois	3,323	207	7	.0021
Ohio	2,845	133	13	.0046
New York	2,486	168	8	.0032
South Carolina	354	40	7	.0198
Colorado	910	76	10	.0109
All United States ²	62,751	4,135	328	.0052

¹ Accidents occurring during agricultural operations are excluded from FAA totals. Therefore, we have subtracted a sum amounting to 7.5% of the registered aircraft in each state, a fair estimate of agricultural aircraft. There were 5,100 airplanes engaged in agriculture in 1957.

² Includes Hawaii, Puerto Rico, Canal Zone, Swan Island, Virgin Islands.

exceed our own capabilities that the statisticians must add another digit to their sums.

The winter of 1959-60 is beginning.

Flying by the rules and playing it safe can again cut the fatality figures for this year and next. Why shouldn't it happen that way?—S.T.