

# 1957 ACCIDENT ANALYSIS

by Joseph M. Robertson, Chairman  
SSA Flying Safety Subcommittee

The year 1957 represents a milestone in accident summaries on two counts. First, there appears to have been a record number of accidents. Whether or not this is due to a greater number of accidents or to a greater percentage of reports on a normal run of accidents, is not known. One thing is certain however, and that is the three fatalities are the greatest number in any year since 1951.

Secondly, ten years of accidents have now been recorded and statistics are available which show the status of the accident picture. This 1957 report, however, will concern itself only with the past year. A later report will summarize the past ten years.

There was a total of 29 accidents, known to have occurred last year, ranging from the comparatively minor to total washouts. Fifteen two-place ships and fourteen single-place. This is roughly ten percent of the airworthy gliders in the country. It represents an enormous cost in repairs and complete losses.

Reasons for the high rate are not known specifically but perhaps we can pinpoint a few of the trouble areas.

First, a breakdown of the types of accidents and numbers. Data is available on 25 of the 29 accidents.

## Take-off

Two accidents in this category. One pilot tried a 180 back after an auto tow line break at 200 feet. Another pilot severely banged the wing tips on the ground four times while attempting a downwind aero tow take-off.

## Mid-Air

There were three mid-air accidents, two of them resulting in fatalities. In both fatal cases, the pilots lost control in clouds with a resulting mid-air breakup of the sailplanes. One of the pilots was an experienced ex-Navy pilot with thousands of hours; the other had approximately 350 hours total time in the air. Both ships were equipped with electric turn and banks which were operating at the time of the accidents. The ex-Navy pilot had an instrument rat-

ing, the other pilot did not. Neither ship had drag producing devices of any sort. One ship was an old, pre-war design, the other a new, high-performance design. One pilot was wearing a parachute, one was not. The pilot with the chute apparently was not able to use it.

The third case concerned a student pilot whose only experience had been 3½ hours of around the pattern by auto tow at a flat, level, open field. When he was turned loose at a ridge soaring site after one aero tow familiarization flight, he hit the ridge and narrowly missed being killed.

## Approach to land

There were ten accidents in this category, one a fatality. Three pilots were short of the field and hit obstructions when the prescribed landing pattern was not followed. Five pilots became involved in the traditional stall-spin type of accident. In all five examples, the cause was failure to maintain sufficient flying speed while turning either onto base or final. The third fatality of the year resulted from this. In almost every case, there was at least severe injury and a total loss of the ship. Two pilots damaged ships by attempting a turn too close to the ground, thus catching a wing tip. One pilot turned away from the field to lose altitude and could not make it back, landing in the trees.

## Landing

Seven pilots, the majority of them on contest flights, damaged ships in landing. Ground loops from having chosen unsuitable fields occurred to five of the seven. One pilot stalled in and one pilot lost control when, after having touched the ground once, he bounced back into the air.

## Miscellaneous

One sailplane and the towplane were lost when the towplane engine quit at 50 feet over a heavily wooded area. Another sailplane was lost when the pilot, attempting to soar too close to the ground, flew into a turbulent thermal and either stalled into the ground or dove in trying to regain airspeed.

One remarkable thing about the

accidents listed is the comparatively high level of air time of the majority of pilots. Available data indicates only one out and out student. The other pilots, almost equally divided between private and commercial ratings, had a minimum of 75 hours of power time with the average about 300 hours. However, the glider time of these pilots averaged only 18 hours. Thus it would seem that the most accident prone group of pilots are those with a fair amount of power time and just enough glider hours to reach a point of confidence - and carelessness. Powered aircraft and gliders fly the same way, but there is enough difference to cause trouble if the pilot is not alert.

Following is a list of gliders by types with the degree of damage.

## Two-place ships

TG-3A	
Minor damage	(1)
Major damage	(3)
Destroyed	(1)
No information available	(1)
L-K	
Minor damage	(1)
Major damage	(1)
Cinema	
No information available	(2)
TG-2	
Major damage	(1)
Pratt-Read	
Major damage	(1)
2-22	
Minor damage	(2)
Destroyed	(1)

## Single-place ships

1-19	
No information available	(1)
1-23	
Minor damage	(1)
Major damage	(2)
1-26	
Major damage	(1)
Weihe	
Minor damage	(1)
DBS-1	
Major damage	(1)
HP-7	
Destroyed	(1)
Bowlus Baby	
Major damage	(1)
Dragontross	
Destroyed	(1)
PJ-1	
Major damage	(1)
Jenny Mae	
Major damage	(1)
BC-6	
Minor damage	(1)
Prue 215	
No information available	(1)

(Concluded on Page 18)