# NEW JERSEY FATALITY

*by* THE SSA SAFE PRACTICES COMMITTEE
*(Chairman, Joseph M. Robertson)*

L-K sailplane, N49913, spun in at the Solberg-Hunterdon Airport, White House, New Jersey on September 13, 1953. Elmer Richter, the pilot, was killed and the ship extensively damaged.

*History of the Flight*

At 5:55 P.M., EDT, Elmer Richter aero-towed off in the L-K for a quick flight and spot landing from a right hand pattern, released at 1000 ft. upwind of the field, then proceeded to enter the downwind leg of the pattern at 800 ft. While on the base leg at 600 ft., he encountered marginal lift, circled several times in a medium banked right turn, changed to a medium left turn, apparently flew out of the lift, stalled and spun. He made three-quarters of a turn and recovered at 200 ft., headed away from the airport. In an attempt to get back, he made a steep turn to the right, stalled halfway through, spun again and hit the ground almost vertically. The injuries to the pilot's legs and lower trunk were extremely severe and he was dead on arrival at the hospital.

*Investigation*

The L-K belonging to Steve Orban, was fully certificated, unmodified and, having just been recovered, was in excellent condition. Shoulder harness was installed. Richter had 1100 hours of power time with a private rating and owned a Tri-Pacer. He had been checked out in the L-K and was, at the time of the accident, practicing a second spot landing for the day in preparation for his CAA private glider rating check. The lift that he encountered on his last flight was apparently generated by a turbulent, low energy, low altitude wave condition which had been flown previously the same day by other pilots. Richter, due possibly to a relatively large amount of time in light aircraft, had gone through straight ahead stalls, but had not been shown the stall-spin characteristics of the L-K. His weight of 240 lbs. placed the CG of the ship .3 inches ahead of the maximum forward CG allowable. The wind, 15 mph from the west, was not considered to be a factor.

*Analysis*

There was no malfunction of the glider and the flight was normal until the accidental spin. His loss of 400 ft. in the first spin put him in a position half a mile downwind of the airport, headed away from it at 200 ft., and this spells TROUBLE in any glider. Perhaps a sense of false pride dictated an attempt to return to the airport instead of landing in one of the fields on either side. In any case, the steep turn, probably with full rudder and certainly excessive back pressure, precipitated a very rapid entry into the second spin. With the CG at either extreme in an L-K, spin entry from a cross-control stalled turn is extremely rapid and an altitude of 200 ft. does not allow space in which to make a recovery. Lack of heavy structure forward of the front seat makes injury or death a certainty even though, as in this case, neither shoulder harness nor safety belt failed.

*The Cause*

The pilot, Elmer Richter, attempting to soar weak lift in his landing pattern, progressed into a situation from which, due to limited experience, it was impossible to recover. Lack of instruction in the stall-spin qualities of the L-K must be considered a major contributing factor.

*Comment*

All large span gliders are spin sensitive in varying degrees, particularly when the center of gravity limitations are approached or exceeded. For this reason, to make steep turns under 500 ft., is to ask for trouble. Students, above all others, should be required to adhere to established safe landing patterns with *no* deviations. Lack of pattern flying below 500 ft. inevitably result in the pilot being forced to make steep turns in order to line up the approach. Also, no student should be allowed to solo out in a spinnable ship until he has had dual instruction in spins either in light airplanes or two place sailplanes.

*Further Analysis by Steve Orban*

With regard to Richter's ability to fly turns, it is my opinion that he did a good job on the dual flights he made with me. We also had a twenty minute dual session in which we ran through

*(Continued on Page 13)*

# OSTIV

## Publication No. II

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