CHECK 'EM!

Les Arnold of Hayward, Calif. who flies at Warm Springs Gliderport, recently had his first accident in over twenty years of glider flying. The story of his hapless afternoon has its obvious moral.

I had been up alone for over 2 hours and had gotten to 5,600 feet in very strange conditions. The wind was light from the northwest to the hills and from the east to the hills, and these winds seemed to meet at the crest of the hills. I went up with no drift; it was quite a ride.

On the second flight I had a passenger with me, one of the fellows from the Ames Club. We were not quite safetied in when the old Meyers tow plane came over to tow us. I never had seen the pilot before. Someone hooked us up. The tow plane started to drag us before we gave the signal as the passenger was still fastening his safety belt and shoulder harness. Finally he was ready so I didn't let go. We had moved about 50 to 100 feet before the pilot gave her full power to take off, then instead of going diagonally on the long runway as usual, he headed across the field directly into the wind, which was very weak at the time but had been much stronger a few minutes earlier. I took quite a while to get off but finally I did. But the tow plane stayed on the ground. Before I realized it the airport fence was very close to the plane and it looked like he wasn't going to get up so I released immediately on seeing the danger, but as I released I found myself in a spot. The tow plane jumped over; just did clear. As I hadn't any extra speed I landed about 100 feet from the fence but couldn't stop in time. I guess we hit at about 30 miles an hour. Four fence posts left their imprint in both wings, two in each. The spar wasn't damaged, only the plywood. One aileron spar was busted. The fuselage was only damaged on the top front tube which was bent in a few inches. My pitot tube cut the four strands of barbed wire so I was very lucky. Dr. Raspet says pitot tubes should be inside but I found a new use for mine. When the tow plane landed after circling the field, we found a spark plug wire off. The engine was only giving 1,600 R.P.M. instead of 1,800 as usual. The pilot should never have tried to take off without first checking full R.P.M., should not have used the short runway in a dying wind, and should not have started without getting our ready signal. **I should have released sooner,** then I could have stopped okeh. I didn't ground loop as the distance was too close and I might have caught the wing tip and maybe given the whole ship a bad twist. Anyway, Red Wing is easily repairable since she isn't hurt structurally, but lots of time and labor and $100 worth of material will be involved. We never even felt her go through the fence, only a crunching noise. It was my fault for being so lax. It's the same old story: pilot error and poor maintenance. I will never take off again without being on my toes—anyway, we sure learn by experience.

—Les Arnold

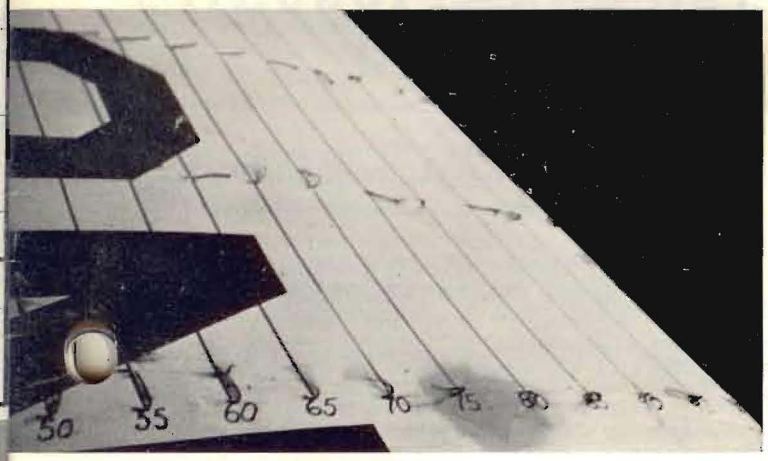

Fig. 9-C

flow under free-flight conditions. In addition the flow is free of the influence of noise as a cause of transition. Much closer agreement with boundary layer theory is possible. Since the sailplane has only recently been applied to these studies it is still too early to outline all possible applications for it in this field. However, until low turbulence tunnels can match it in noise level, it will remain the medium for the finest aerodynamic studies.

Thus far the sailplane has been used in aerodynamic research for the investigation of low loss flows over airfoils, around wing-fuselage intersections and over wing tips. Various aerodynamic devices have been tested on the sailplane where freedom from extraneous effects is dictated by theory. That the technique of free flight measurement and subsequent analysis is a powerful one for improving our command of aerodynamics was clearly shown in the systematic improvement of the sailplane RJ-5. However, even this extremely efficient craft can now be improved by such techniques as have already been studied on a sailplane to improve the extent of laminar flow. The reader should see from this description that the sailplane is just beginning to contribute to the field of fine aerodynamics. We need only work a few more years with the sailplane before it will of necessity be adopted by the major aerodynamics research centers of the world.