PAUL TUNTLAND

range. If ground action is included, the complete scene must show on the film.

Paul understood intuitively — as he understood flight—the necessity for repeated "takes" before director William Wellman, satisfied, said "Print it." Paul spent days of rehearsal, perfecting his glides from takeoff to a landing point no larger in area than a small rug. And then spent more days to give Wellman a chance to film each ground-launched flight from several angles.

The most spectacular sequence of the film required Paul and glider to be raised hundreds of feet skyward by a gas balloon. Then Paul released the harness mechanism, and glided several miles to the good San Fernando Valley earth. Before this success, however, tension grew. One balloon got away. One glider cracked up in its tests. Production pressures normal in any movie seemed intensified in this one.

Through all such crises Paul maintained his goodnatured calm. He had a boy's zest and buoyancy, but a wise, steel-nerved man was in control. The crucial day arrived. Up went Paul, glider and balloon, and so did the cameraman in a Paul Mantz special slow-speed power job. Paul had made ground tests of the tandemwing glider, but this was his first real "conquest of space" in the model. And he performed brilliantly in one take, gliding and turning and gently moving earthward. The camera plane pursued him without effort, so skillful was Paul's re enactment of 1905 soaring flight.

When the picture was finished, Paul took me one Sunday to the desert. It was the field between Twentynine Palms and Joshua Tree, north of Palm Springs, where the Southern California soaring fans gather on week-ends.

"Now I'll show you what gliding really is like, in a modern craft," Paul said. "Come on."

It took me moments until I realized that I was to go with him, in a two seater.

It was my only experience with soaring, even as a passenger. It was great. I knew then that I was with a superb pilot, and a great guy. I've never changed my mind. Sincerely,

Homer M. Davies

EL MIRAGE FIELD ADELANTO, CALIF.

Dear Eugart:

It's difficult to believe that Paul is gone. He was such a fine fellow, so eager and enthusiastic for soaring and life in general. I can relegate myself to the thought that his service on this war-torn bit of the universe was completed and that the Almighty had bigger projects ahead for him.

At 1:00 P.M. I towed Paul and Bill Ivans to 2500 feet south of the field before they encountered a weak thermal. Both cast off and co-pilot Dean of San Diego photographed Bill in the "1-23" and Paul in the Prue "215" for several minutes. Going back to the field I climbed into our TG-3 and soared with a student for about 40 minutes in a very weak lift, approximately 2 miles west of Paul. Meanwhile, Ivans landed and reported that there was very little lift. About 2:30 Bill was again towed up and the tow pilot said the air was still fairly smooth.

Paul, who had a transceiver in his ship, was unable, to contact the ground station due to some trouble in

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the ground station which the operator could not remedy. We later learned that Paul also called Palmdale CAA communications for winds aloft and other information. At about 3:45 P.M. Bill landed and Irv Prue, George Lockett, and myself drove to the runway to ask him about conditions and where he had last seen Paul. Lainie Frank, Dean, Andy Tagliaficio, and John Graves were already there when we arrived. Bill told us the air was very smooth but that he had seen Paul at around 8600 feet MSL and that Paul had started out toward the east.

Previous to Paul's takeoff he had told me that he intended running some stability tests and ${\bf I}$ believe he was going to fly over the field at a relatively low altitude for Irv to observe if his gear was down. What other tests were to be run I do not know. Paul had been aloft for about $2 \ 3/4$ hours when all at once I heard Lainie scream and we turned in time to see the "215" diving straight towards the earth, spinning rapidly with its right wing gone. At approximately 250 feet a tiny object left the ship and at the same instant the chute appeared. The chute had filled out in a small bulb when both the glider and Paul hit the ground. We all jumped in the cars and drove approximately one mile west of the field. As we neared the fence, the other wing came down ahead of us. Running from the road about a quarter mile north we reached Paul. He was beyond help, having died instantly. His rip chord was in his hand and the Tuntland smile still on his face.

Andy picked up the barograph drum and we brought it back to the administration building. The barograph trace was still legible as far as the takeoff and accident was concerned. Saturday night I fixed the trace and tried to calibrate the legible part of the flight. Since I had a copy of this barograph's calibration, it was fairly easy to do. For some time preceding the accident Paul had been letting down at approximatly 80-90 MPH (assuming that he was not using flaps). Then there appears to be a slight pull up and five sharp occilations in less than one minute which could be a series of stalls. The track next shows an increasing rate of descent which averages nearly 1500 feet per minute. Also of note is that the curve drops off increasingly until the shock of the wing failure.

The occillations began at 1750 feet above the ground according to calibration. From the trace, conclusions can be drawn, but none of them definite except that whatever happened occurred at too low an altitude. In my opinion, even the test causing the 5 occillations was too low, especially in an experimental ship. Approximately 30 seconds elapsed from failure to ground contact.

The Prue 215 was a fine flying little ship and I'm sure this will be attested to by the other pilots who flew it. But as John Robinson pointed out, even he doubts that with his familiarity of "Zany" could he act any swifter than Paul did in such a short period of time. My only conclusion which I am sure will be concurred in by most test pilots is that all test flights must be completed at least 3500 feet above the ground, and let-down should be by standard relatively slow flight with due caution observed until the glider is safely on the ground. Sincerely,

GUS (Wm. G. Briegleb)