

# PHOTOGRAPHING GLIDERS - PART 2

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*All photographs by the author*

The first installment of this series, published in the December, 1960, issue of *Soaring*, brought up the general and special problems involved in getting good photographs of gliders on the ground. This installment will cover the still more specialized problems involved in shooting airborne gliders from the ground.

As pointed out previously, getting a good photograph almost always involves WORK on the part of the photographer, sometimes physical, as in moving the subjects about, or merely thinking, and studying several angles before choosing the best. In shooting action, the photographer must move himself instead of the subjects, and because of the fast action, he must be FAST himself. His best assets are good legs and wind. There are situations where one can sit comfortably beside the runway and pick them off like ducks in a shooting gallery as they go by, but these are rare. Another most important asset, and the one that separates the photographers from the shutter-snappers, is the ability to form a mental image of the best picture that will result from the current action, determine what action on the part of the photographer can do to improve it, and then know when to shoot. Many good action shots are ruined by shooting too soon or too late, mostly the former.

This is a common failing of the inexperienced photographer. The on-

coming glider looks enormous in the finder but the resulting image can hardly be found on the film. Another common failing, even with the experts, is "Clipping" the subject. Everyone tends to lead the moving subject a bit as though shooting a gun, with the result that the tail is usually clipped off. The reverse, "Lagging" with the camera, seldom occurs.

There are only three types of action shots that the ground-based photographer can take — general action to show the glider operation, technical studies of the aircraft to utilize angles that cannot be shot with the subject on the ground, and "Mug" shots where the object is to obtain an identifiable photo of the pilot or passenger. Except for the relatively rare occasions where the photographer can get close to a good slope soaring operation, he can get his action pictures only under two short-term circumstances — the take-off or landing of the glider. First, however, let us take a look at the photographic problems involved in shooting moving objects.

Moving objects automatically require fast shutter speeds if the picture is to be at all sharp. One two-hundredth of a second is about the absolute minimum for shooting even slow gliders at practical distances, and speeds above 1/1000 are possible with the new fast films. The speed of the subject in actual miles per hour is not as important as an-

other speed — its ANGULAR speed with respect to the lens of the camera and its field of view. Figure 1 shows three different "Speeds" for gliders all having the same velocity in mph.

The angle ABC is the normal angle of camera lens coverage. If the camera were held fixed with the shutter open, the image of the moving glider would enter the scene at one side and pass across, leaving a long streak on the film. At high shutter speeds, the image of the glider will be "Frozen" on the film. Since there is relative motion between the glider and the camera, the image will travel a certain distance across the film in the interval that the shutter is open. Now, let line DE represent the length of a glider relative to the lens angle and the line FG, farther from the lens, represent another glider of the same size. DE, closer in, occupies a much larger part of the scene, and a given speed will result in greater motion of the image across the film during exposure. For a given shutter speed, the greater the distance to the moving subject, the sharper the image will be, or, the same degree of sharpness can be obtained with lower shutter speeds. Line HI represents a glider approaching the camera from an angle. Its motion relative to the lens is less than either DE or FG, and shows that quartering action is much easier to "Freeze" than is broadside.

One way of improving the movement problem is to "Pan" the camera as the subject moves by. This reduces the relative motion between glider and camera, and has the advantage of sometimes blurring the background so that the subject stands out better.

To shoot take-off shots, it is necessary to get far enough down the

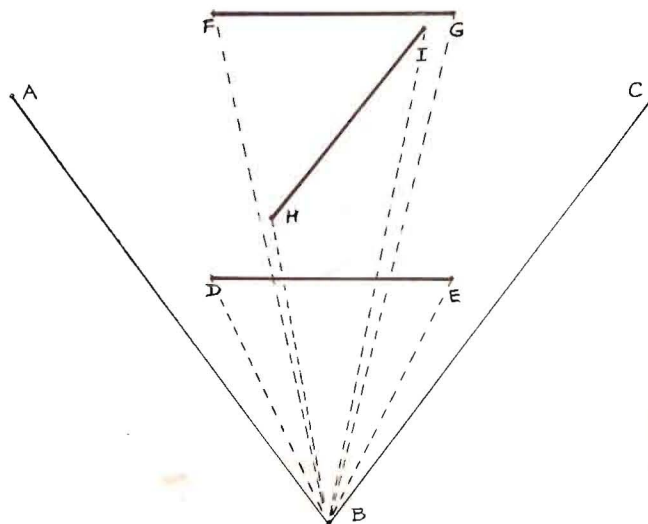


Fig. 1. (Left.)

Fig. 2. Below, three-quarter front view of Schweizer 2-22 snapped just as it started its pull-up on auto tow take-off. Nose-up attitude makes glider "High" relative to camera.

