

proper remedial action for various unairworthy conditions.

## 5. Preflight operations

The applicant shall demonstrate the preflight inspection of launching, towing, and field operational equipment necessary for glider flights. He shall demonstrate the approved methods of ground handling of gliders. The applicant shall intelligently discuss the methods of selecting the appropriate launching sites and have a knowledge of glider traffic pattern requirements. He shall obtain or describe the procedure for giving appropriate notice to agencies normally affected by glider operations.

## 6. Glider operation signals and communications

The applicant shall describe the signals used in glider launching and airplane tow operations to provide both safety and clear indications of intentions. He shall describe the prearranged communications with the tow plane for all anticipated conditions and emergencies.

## 7. The airplane tow

The applicant shall discuss recommended towing speeds, towrope length and strength, and all anticipated emergencies, particularly loss of launching power and towline break.

The techniques of the airplane tow takeoff, the danger of prop wash, and methods of taking up slack in the towrope during flight should be discussed.

The applicant shall understand and explain the instability of the glider during the airplane tow.

## PHASE II. BASIC TECHNIQUES

### 1. Takeoffs and launching methods

The private glider pilot applicant shall demonstrate proficiency in one method of launching; the commercial glider pilot applicant shall demonstrate an automobile or winch launch and an airplane tow.

He shall display adequate control while accelerating to flying speed and execute a normal liftoff. When using an airplane tow, the applicant shall remain clear of the towplane's slipstream and avoid undue displacement in any direction in turns and straight flight. He must also take corrective action for slack in the towline.

The applicant shall demonstrate glider flight when towed by an airplane, above, below, and to one side of the slipstream.

With all types of launches, deliberate release from the launching towline shall be made in level flight attitude without undue load on the towline.

## 2. Pattern, approach, and landing

The applicant shall demonstrate 180° approaches in conformance with existing traffic pattern to landings beyond and within 200 feet of a designated spot for the private pilot applicant, and beyond and within 100 feet of a designated spot for the commercial pilot applicant. Diagnosis of the probable *surface wind velocity and direction, including gust conditions*, should be completed on the downwind leg and indicated by placement of the base leg. Alertness for other air and ground traffic shall be shown. A constant gliding speed for the best glide angle shall be maintained. This speed should be increased during the downwind leg and maintained until flare-out for the landing. The proper use of the ground braking devices, including the nose skid, shall be demonstrated.

The demonstration of forward slips will be required on all flight tests, as well as a demonstration of the proper operation of spoilers and dive brakes if the glider is so equipped.

## PHASE III. SPECIAL MANEUVERS

### 1. Stalls from all normally anticipated flight attitudes

Stalls and stall recoveries will be required from the following operating conditions:

(a) *Special operations stalls* will be demonstrated from the minimum sink airspeed, entered from straight flight and from 10° to 45° bank turns. Soaring conditions permitting, the applicant may be required to demonstrate operational stalls in turbulent air and when entering down-drafts at minimum airspeed.

(b) *Approach to landing stalls* will be simulated at altitude during straight flight and during 10° to 30° bank turns, entered at approach speed with the glider in various approach configurations of spoilers or dive brakes. Recovery should be initiated when the stall occurs or when the control stick is in the full rearward position.

(c) *Accelerated maneuver stalls* should be performed from 30° to 50° bank turns in various configurations of spoilers or dive brakes. The

stalls shall be executed by increasing the angle of attack smoothly and rapidly until a definite indication of a stall occurs.

NOTE: Accelerated stalls should be performed at an airspeed that will not impose an undue load on the glider structure.

Recovery from all stalls should be completed to straight flight with the wings level, and with the least loss of altitude consistent with safety.

The following performance limits shall apply:

Stall recognition—prompt and accurate.

Recovery—to straight flight using coordinated control action as necessary immediately upon stall recognition. No indication of a secondary stall.

Airspeed—not greater than best angle of glide speed.

### 2. Operations at minimum controllable airspeeds (slow flight)

The applicant will be required to demonstrate straight glides and gliding turns at minimum sink and at the minimum controllable airspeeds with and without flaps, spoilers and dive brakes, provided the glider is so equipped.

### 3. Three-turn spirals

The commercial glider pilot applicant shall demonstrate gliding spirals through three full turns, both right and left, performed with a bank of at least 45°. Performance will be evaluated on the basis of airspeed control, coordination, orientation, and vigilance for other air traffic. A successful performance will be within the following tolerances:

Airspeed.....plus or minus 5 m.p.h.  
Bank.....45° to 50°  
Heading on  
recovery.....within 10°

## RENEWAL TIME

Those SSA members whose dues are paid only through June 30th are reminded to mail their renewal dues before that date in order to receive their July *Soaring* in the initial mailing and save the Society time and expense. Individual notices have been sent to those affected, except members of SSA Chapters, whose dues will be renewed by the Chapter to which they belong. To determine if you are affected, look at your membership card or the code figures with your mailing address: 1's are paid only through the first half of the year.