

- (3) Approach with flaps 40° at 70 MPH.
- (4) Unlatch cabin doors prior to final approach.
- (5) Before touchdown, turn off ignition and master switches.
- (6) Land in a slightly tail-low attitude.

### EMERGENCY LANDING WITHOUT ENGINE POWER.

If an engine stoppage occurs, establish a flaps up glide at 80 MPH. If time permits, attempt to restart the engine by checking for fuel quantity, proper fuel selector valve position, and mixture control setting. Also check that engine primer is full in and locked and ignition switch is properly positioned.

If all attempts to restart the engine fail, and a forced landing is imminent, select a suitable field and prepare for the landing as follows:

- (1) Pull mixture control to idle cut-off position.
- (2) Turn fuel selector valve handle to OFF.
- (3) Turn off all switches except master switch.
- (4) Airspeed -- 70 to 80 MPH (flaps up).
- (5) Extend wing flaps as necessary within gliding distance of field.
- (6) Airspeed -- 65 to 75 MPH (flaps down).
- (7) Turn off master switch.
- (8) Unlatch cabin doors prior to final approach.
- (9) Land in a slightly tail-low attitude.
- (10) Apply heavy braking while holding full up elevator.

### DITCHING.

Prepare for ditching by securing or jettisoning heavy objects located in the baggage area, and collect folded coats or cushions for protection of occupant's face at touchdown. Transmit Mayday message on 121.5 MHz., giving location and intentions.

- (1) Plan approach into wind if winds are high and seas are heavy. With heavy swells and light wind, land parallel to swells.
- (2) Approach with flaps 40° and sufficient power for a 300 ft./min. rate of descent at 70 MPH.
- (3) Unlatch the cabin doors.
- (4) Maintain a continuous descent until touchdown in level attitude. Avoid a landing flare because of difficulty in judging aircraft height over a water surface.
- (5) Place folded coat or cushion in front of face at time of touchdown.
- (6) Evacuate aircraft through cabin doors. If necessary, open win-

dow to flood cabin compartment for equalizing pressure so that door can be opened.

- (7) Inflate life vests and raft (if available) after evacuation of cabin. The aircraft can not be depended on for flotation for more than a few minutes.

### DISORIENTATION IN CLOUDS.

When flying in marginal weather, the pilot should make sure that the Wing Leveler control knob (if installed) is ON. However, if the airplane is not equipped with this device or gyro horizon and directional gyro instruments, the pilot will have to rely on the turn coordinator (or turn and bank indicator) if he inadvertently flies into clouds. The following instructions assume that only one of the latter two instruments is available.

### EXECUTING A 180° TURN IN CLOUDS.

Upon entering the clouds, an immediate plan should be made to turn back as follows:

- (1) Note the time of the minute hand and observe the position of the sweep second hand on the clock.
- (2) When the sweep second hand indicates the nearest half-minute, initiate a standard rate left turn, holding the turn coordinator symbolic airplane wing opposite the lower left index mark for 60 seconds. Then roll back to level flight by leveling the miniature airplane.
- (3) Check accuracy of the turn by observing the compass heading which should be the reciprocal of the original heading.
- (4) If necessary, adjust heading primarily with skidding motions rather than rolling motions so that the compass will read more accurately.
- (5) Maintain altitude and airspeed by cautious application of elevator control. Avoid overcontrolling by keeping the hands off the control wheel and steering only with rudder.

### EMERGENCY LET-DOWNS THROUGH CLOUDS.

If possible, obtain radio clearance for an emergency descent through clouds. To guard against a spiral dive, choose an easterly or westerly heading to minimize compass card swings due to changing bank angles. In addition, keep hands off the control wheel and steer a straight course with rudder control by monitoring the turn coordinator. Occasionally