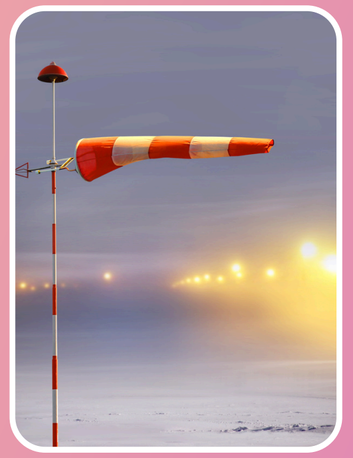
Emergencies & Malfunctions

Meghan Rice CFI/CFII

Go Arounds



Unstable

Runway Incursion

ATC

Emergency Descent

1. Engine or Electrical Fire
(descend at 100 mph, not to exceed Va)

2. Depressurization
(Structural failure, system failure, deliberate)

3. Icing
(Trace, Light, Mod, Sev)
Rime, Mixed, Clear

4. Hypoxia/CO Poisoning

Plane Limitations

MANEUVERS-UTILITY CATEGORY.

This airplane is not designed for purely aerobatic flight. However, in the acquisition of various certificates such as commercial pilot, instrument pilot and flight instructor, certain maneuvers are required by the FAA. All of these maneuvers are permitted in this airplane when operated in the utility category. In connection with the foregoing, the following gross weight and flight load factors apply, with maximum entry speeds for maneuvers as shown:

Gross Weight	1600 lbs	
Flight Maneuvering Load Factor, *Flaps Up . . .	+4.4	-1.76
Flight Maneuvering Load Factor, *Flaps Down . .	+3.5	

*The design load factors are 150% of the above, and in all cases, the structure meets or exceeds design loads.

Plane Limitations

No aerobatic maneuvers are approved except those listed below:

MANEUVER	MAXIMUM ENTRY SPEED
Chandelles	109 MPH (95 knots)
Lazy Eights	109 MPH (95 knots)
Steep Turns	109 MPH (95 knots)
Spins	Use Slow Deceleration
Stalls (Except Whip Stalls)	Use Slow Deceleration

During prolonged spins, the aircraft engine may stop; however, spin recovery is not adversely affected by engine stoppage. Intentional spins with wing flaps extended are prohibited.

Aerobatics that may impose high inverted loads should not be attempted. The important thing to bear in mind in flight maneuvers is that the airplane is clean in aerodynamic design and will build up speed quickly with the nose down. Proper speed control is an essential requirement for execution of any maneuver, and care should always be exercised to avoid excessive speed which in turn can impose excessive loads. In the execution of all maneuvers, avoid abrupt use of controls.

AIRSPEED LIMITATIONS (CAS).

The following is a list of the certificated calibrated airspeed (CAS) limitations for the airplane.

Never Exceed Speed (glide or dive, smooth air)	162 MPH
Maximum Structural Cruising Speed	120 MPH
Maximum Speed, Flaps Extended	100 MPH
*Maximum Maneuvering Speed	109 MPH

*The maximum speed at which abrupt control travel can be used without exceeding the design load factor.

Best Glide

Vg: 65mph
Most distance for the least amount of altitude loss.

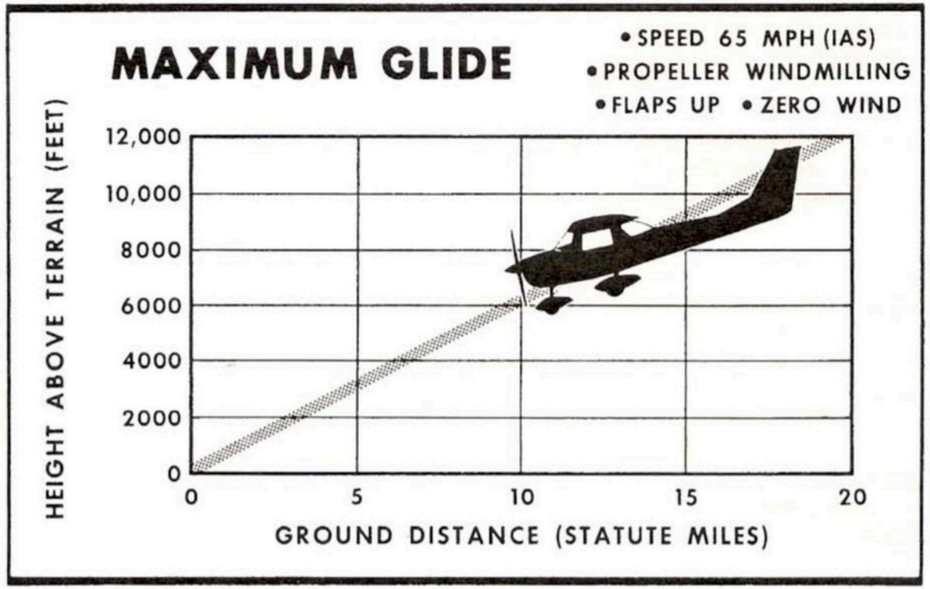


Figure 5-5.

ELT 91.207

(c) Batteries used in the emergency locator transmitters required by paragraphs (a) and (b) of this section must be replaced (or recharged, if the batteries are rechargeable)—

(1) When the transmitter has been in use for more than 1 cumulative hour; or

(2) When 50 percent of their useful life (or, for rechargeable batteries, 50 percent of their useful life of charge) has expired, as established by the transmitter manufacturer under its approval.

Control Surfaces

1. Inoperative Trim
2. Aileron Malfunction
3. Elevator Malfunction
4. Rudder Malfunction


Thank
You