

Operating Details

the Cessna winterization kit, available from your Cessna Dealer, should be installed to improve engine operation.

OIL DILUTION SYSTEM.

If your airplane is equipped with an oil dilution system and very low temperatures are anticipated, dilute the oil prior to engine shut down by energizing the oil dilution switch with the engine operating at 1000 RPM, and with the auxiliary fuel pump switch in the "LO" position. (Refer to figure 3-2 for dilution time for the anticipated temperature). While diluting the oil, the oil pressure should be watched for any unusual fluctuations that might indicate a screen being clogged with sludge washed down by the fuel.

NOTE

On the first operation of the oil dilution system each season, use the full dilution period, drain the oil, clean the screen, refill with new oil and redilute as required.

If the full dilution time was used, beginning with a full oil sump (12 quarts), subsequent starts and engine warm-up should be prolonged to evaporate enough of the fuel to lower the oil sump level to 13 quarts prior to take-off. Otherwise, the sump may overflow when the airplane is nosed up for climb.

To avoid progressive dilution of the oil, flights of at least one hour's duration should be made between oil dilution operations.

	TEMPERATURE		
	0°F	-10°F	-20°F
DILUTION TIME	2 min.	5 min.	8 min.
FUEL ADDED	1 qt.	2.5 qt.	4 qt.

Maximum Sump Capacity - 16 quarts
Maximum for Take-off - 13 quarts

Figure 3-2.

Section IV

emergency procedures



SYSTEM EMERGENCY PROCEDURES.

FUEL SYSTEM—EMERGENCY OPERATION.

In the event of an engine-driven fuel pump failure, turn the auxiliary fuel pump switch to "HI." This will supply sufficient fuel flow for cruising flight; however, the mixture control must be reset. Land as soon as practical if fuel flow indication remains below normal.

A prolonged sideslip in the direction of the fuel tank in use can cause engine fuel starvation if the fuel quantity is low since the fuel tank outlet ports may be uncovered.

The quickest recovery of fuel flow to the engine can be accomplished in the following manner:

- (1) Level the aircraft.
- (2) Push the mixture control to full rich.
- (3) Push the throttle full forward.
- (4) Turn the auxiliary fuel pump switch to "HI."

Engine operation should resume within six seconds if this procedure is executed promptly.

LANDING GEAR—EMERGENCY OPERATION.

When the landing gear will not extend normally, it may be extended manually as follows:

NOTE

Prior to following emergency procedures, it is recommended that the landing gear handle be moved from "UP" to "DOWN" several times. In certain cases, this procedure can dislodge foreign matter which may be causing the malfunction.

- (1) Place the gear handle in the full "DOWN" position.
- (2) Pull the emergency hand pump out to its full extension.

(3) Operate the hand pump up and down until the down indicator (green) light comes on, and continue pumping until the landing gear handle returns to neutral.

NOTE

The landing gear cannot be retracted with the emergency hand pump. If the gear will not retract normally, extend the gear, land, and have the malfunction corrected.

If the wing flaps fail to extend normally, plan to make a flaps-up landing, unless there is another person aboard to assist. It is impractical for the pilot alone to hold down the spring-loaded flap handle, operate the hand pump, and fly the airplane at the same time.

LANDING EMERGENCIES (Except Ditching).

FORCED LANDING (Precautionary Landing with Power).

- (1) Drag over selected field with flaps 20° and 90 MPH airspeed, noting type of terrain and obstruction.
- (2) If surface is smooth and hard (pasture, frozen lake, etc), plan a wheels-down landing using full flaps and keeping nose wheel off ground as long as practical.
- (3) If surface is rough or soft, plan a wheels-up landing as follows:
 - a. Approach with flaps down at 75 to 85 MPH.
 - b. Turn off all switches except ignition switch.
 - c. Unlatch cabin door prior to flare-out.
 - d. Reduce power to a minimum during flare-out.
 - e. Prior to contact, turn ignition switch "OFF."
 - f. Land in a slightly tail-low attitude.
 - g. Attempt to hold the tail low throughout slide.

FORCED LANDING (Complete Engine Failure).

In the event of a complete engine failure, maximum gliding distance can be obtained by maintaining 95 MPH indicated air speed with the landing gear and wing flaps retracted. Refer to the Maximum Glide Diagram on page 4-3 for maximum glide data.

- (1) Pull mixture control knob to idle cut-off.
- (2) Turn fuel selector valve handle to "BOTH OFF."
- (3) Turn off all switches except master switch.
- (4) Approach at 85 to 95 MPH.
- (5) If field is smooth and hard, extend landing gear within gliding distance of field.

tance of field.

(6) If engine is windmilling, extend flaps as necessary within gliding distance of field.

NOTE

The windmilling engine will provide sufficient power for extending the wing flaps. If the engine is not windmilling, plan to make a flaps-up landing.

(7) Turn off master switch.

(8) Make a normal landing, keeping nose wheel off ground as long as practical.

(9) If terrain is rough or soft, plan a wheels-up landing as follows:

- a. Approach at 85 to 95 MPH with gear and flaps retracted.
- b. If practical, extend flaps within gliding distance of field.
- c. Turn off master switch.
- d. Unlatch cabin door prior to flare-out.
- e. Land in a slightly tail-low attitude.
- f. Attempt to hold tail low throughout slide.

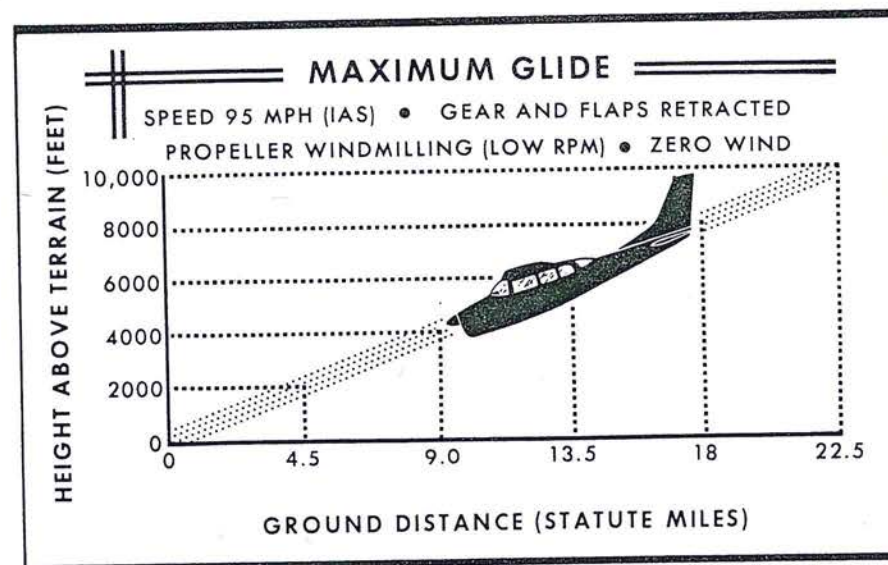


Figure 4-1.