STBY VAC	AMBER light indicates Stand-by Vacuum system is ON.
REMOTE RNAV	AMBER light indicates DME not slaved to RNAV.

ENGINE

POWER LOSS - DURING TAKEOFF ROLL

Throttle	CLOSED
Brakes	AS REQUIRED
Fuel Selector	OFF
Magneto/Starter Switch	OFF
Master	OFF

POWER LOSS - AFTER LIFTOFF

Airspeed	85 KIAS (Flaps UP)
	75 KIAS (Flaps TAKEOFF/DOWN)
Fuel selector	SELECT OTHER TANK
Throttle	FULL FORWARD
Propeller	FULL FORWARD
Mixture	FULL FORWARD
Magneto/Starter Switch	Verify on BOTH
High Fuel Boost Pump	ON

If engine does not restart, proceed to **FORCED LANDING EMERGENCY.**

High Fuel Boost Pump	OFF

POWER LOSS - IN FLIGHT (RESTART PROCEDURES)

Airspeed	85 KIAS minimum
Fuel Selector	SELECT OTHER TANK

| NOTE|

At altitudes above 12,000 feet engine restart will take 13 seconds or longer when switching from an empty fuel tank to a full tank.

Magneto/Starter Switch	Verify on BOTH

If the engine shows no indication of restarting after above items are accomplished, proceed as follows:

Throttle	FULL FORWARD
Propeller	FULL FORWARD
Mixture	FULL FORWARD

| NOTE|

At altitudes above 18,000 ft.,it may be necessary to slowly lean mixture from full rich position to facilitate engine restart.

If engine still shows no indication of restarting:

High Fuel Boost Pump	ON

~ ~ ~ ~ ~ ~
~ CAUTION ~
~ ~ ~ ~ ~ ~

With a normally operating engine, operation of the HIGH or LOW BOOST PUMP with low power settings may result in loss of engine power due to an overrich condition. The High Fuel Boost Pump Switch is guarded to prevent inadvertent operation but can be held on for momentary operation without removing the guard. Rotate guard clockwise to enable switch to be placed in the ON position.

If engine does not restart after several attempts, establish best glide speed and proceed to **FORCED LANDING EMERGENCY**.

After engine restarts:

Throttle	ADJUST as required
Propeller	ADJUST as required
Mixture	RELEAN as power is restored
High Fuel Boost Pump	OFF

| NOTE |

If engine fails when the high boost pump is turned OFF, suspect engine driven fuel pump failure. Proceed to ENGINE DRIVEN FUEL PUMP FAILURE.

~ ~ ~ ~ ~ ~
~ CAUTION ~
~ ~ ~ ~ ~ ~

Should the engine excessively cool during engine out, care should be exercised during restart to avoid excessive oil pressure. Allow the engine to warm up at minimum governing RPM and 16-18 inches MP.

OPERATING THE ENGINE AT TOO HIGH AN RPM BEFORE REACHING MINIMUM OIL TEMPERATURES MAY CAUSE LOSS OF OIL PRESSURE.

POWER LOSS - PRIMARY ENGINE INDUCTION AIR SYSTEM BLOCKAGE

Blockage of the primary engine induction air system may be experienced as a result of flying in cloud or heavy snow with cold outside air temperatures (0° C or below). At these temperatures, very small water droplets or solid ice crystals in the air may enter the primary engine induction inlet in the cowl opening and travel inside the inlet duct to the induction air filter. The ice particles or water droplets may collect and freeze on the air filter causing partial or total blockage of the primary engine induction system.

Indications of primary induction system blockage are either a loss of manifold pressure with a fixed throttle position or the need to gradually advance the throttle to maintain a given manifold pressure setting. In extreme conditions, the loss of indicated manifold pressure and engine power may be quite rapid. A loss of as much as 10 inches HG manifold pressure within one minute can be experienced.

If primary induction air system blockage occurs, the alternate engine induction air system will automatically open, supplying engine with an alternate air source drawn from inside cowling rather than through the air filter. The alternate air system can also be manually opened at any time by pulling control labeled ALTERNATE AIR. Automatic or manual activation of alternate induction system is displayed in cockpit by illumination of the ALT AIR light in main annunciator panel. When operating on alternate air system, available engine power will be less for a given propeller RPM compared to the primary induction air system. This is due to loss of ram effect and induction of warmer inlet air. Due to this loss of available power when using alternate air at altitudes above 15000 ft., it may be necessary to increase propeller RPM and relean mixture for optimum engine power.

COMPLETE LOSS OF ENGINE POWER

If a suspected turbocharger or turbocharger waste gate control system failure results in a complete loss of engine power, the following procedure is recommended:

Mixture . . . . . IDLE CUTOFF
Throttle . . . . . CRUISE position
Propeller . . . . . FULL FORWARD
Mixture . . . . . ADVANCE slowly until engine starts;
Continue Flight . . . . . LAND AS SOON AS POSSIBLE.

PARTIAL LOSS OF ENGINE POWER

If the turbocharger wastegate control fails in the OPEN position, a partial loss of engine power may result. The following procedure is recommended if a suspected turbocharger/wastegate control failure results in a partial loss of engine power:

Throttle . . . . . AS REQUIRED
Propeller . . . . . AS REQUIRED
Mixture . . . . . AS REQUIRED
Continue Flight . . . . . LAND AS SOON AS POSSIBLE

ENGINE POWER OVERBOOST

If the turbocharger wastegate control fails in the CLOSED position, an engine power overboost condition may be experienced. The following procedure is recommended for an overboost condition:

Throttle . . . . . REDUCE as necessary to keep manifold pressure within limits.

| NOTE |

Expect manifold pressure response to throttle movements to be sensitive.

Propeller . . . . . AS REQUIRED
Mixture . . . . . AS REQUIRED
Continue Flight . . . . . LAND AS SOON AS POSSIBLE

ENGINE ROUGHNESS

Engine instruments . . . . . CHECK
Fuel Selector . . . . . OTHER TANK
Mixture . . . . . READJUST for smooth operation
Magneto/Starter Switch . . . . . Select R or L or BOTH
If roughness disappears on single Magneto, monitor power and continue on selected magneto.

////////////////////
/// WARNING ///
////////////////////

The engine may quit completely when one magneto is switched off if the other magneto is faulty. If this happens, close throttle to idle and mixture to idle cutoff before turning magnetos ON to prevent a severe backfire. When magnetos have been turned back on, go back to POWER LOSS - IN FLIGHT. Severe roughness may be sufficient to cause propeller separation. Do not continue to operate a rough engine unless there is no other alternative.

Throttle . . . . . REDUCE
check if a lesser throttle setting causes roughness to decrease.

If severe engine roughness cannot be eliminated LAND AS SOON AS PRACTICABLE.

REDUCTION IN POWER - (Interruption of fuel flow, engine surging)

Mixture Control . . . . . IDLE CUTOFF
Fuel Selector . . . . . OTHER TANK
Low Fuel Boost Pump . . . . . On 3-5 sec
Throttle . . . . . CRUISE POSITION
Propeller . . . . . 2700 RPM

REDUCTION IN POWER - (continued)

Mixture . . . . . ADVANCE SLOWLY until engine starts or runs smoothly
Low Fuel Boost Pump . . . . . OFF (if engine continues to run leave OFF)
Mixture . . . . . ADJUST to obtain fuel flow appropriate to MP and RPM

If engine does not restart:
- High Fuel Boost Pump . . . . . ON

If engine still does not restart:
REPEAT procedures after descending below 12,000 feet

COWL FLAP FAILURE - FULL CLOSED POSITION

Acceptable engine operating temperatures can always be maintained in flight if the cowl flap fails in the full closed position using the following procedure:

Power . . . . . AS REQUIRED
Mixture . . . . . RICH
Airspeed . . . . . 130 KIAS
Cylinder Head & Oil Temperature . . . . . MONITOR in normal operating range.

HIGH CYLINDER HEAD TEMPERATURE

Mixture . . . . . ENRICH As Required
Cowl Flap . . . . . OPEN As Required
Airspeed . . . . . INCREASE As Required
Power . . . . . REDUCE—if temperature cannot be maintained within limits

HIGH OIL TEMPERATURE

| NOTE |

Prolonged high oil temperature indications will usually be accompanied by a drop in oil pressure. If oil pressure remains normal, then a high temperature indication may be caused by a faulty gauge or temperature probe.

Cowl Flap . . . . . OPEN as required
Airspeed . . . . . INCREASE
Power . . . . . REDUCE

PREPARE FOR POSSIBLE ENGINE FAILURE IF TEMPERATURE CONTINUES HIGH.

LOW OIL PRESSURE

Oil temperature and pressure gauges . . . . . MONITOR
Pressure below 10 PSI . . . . . **EXPECT ENGINE FAILURE**
proceed to **FORCED LANDING EMERGENCY.**

ENGINE DRIVEN FUEL PUMP FAILURE

////////////////////////
/// WARNING ///
////////////////////////

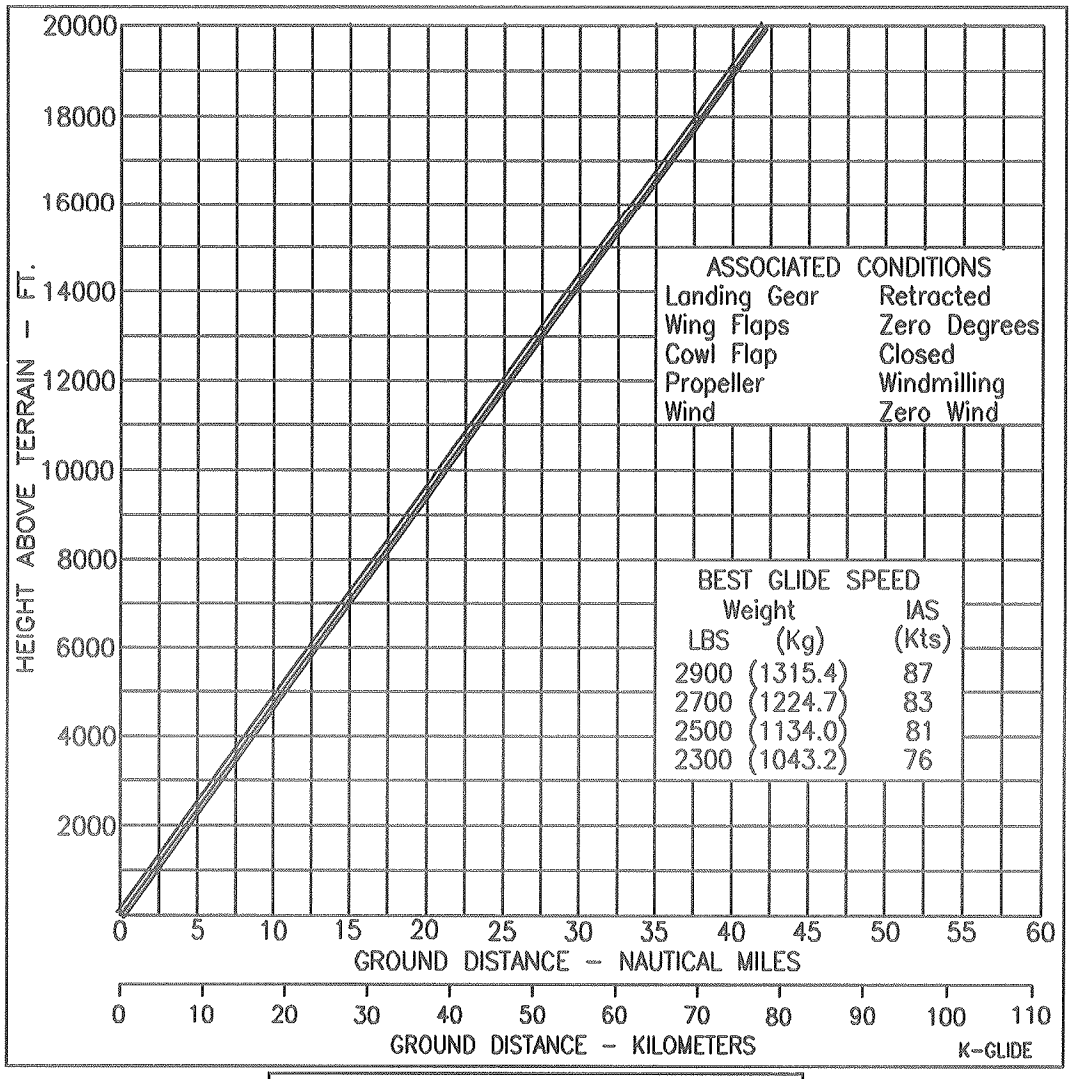
When operating the engine at moderate power with the HI BOOST pump ON and a failed engine driven fuel pump, the engine may quit when the manifold pressure is reduced below 20 in. Hg. unless manually leaned.

| NOTE |

The maximum fuel flow capacity of the HIGH-BOOST pump decreases as density altitude is increased, therefore, the maximum available horsepower will also decrease as altitude is increased. At sea level the available fuel flow is approximately 14.1 U.S. GPH and by leaning, 64% to 76% horsepower will be available. At 24,000 feet the fuel flow is approximately 6.1 U.S. GPH and 29% to 41% horsepower will be available.

GLIDE

MAXIMUM GLIDE DISTANCE
MODEL M20K



FORCED LANDING EMERGENCY

POWER OFF - GEAR RETRACTED OR EXTENDED

Emergency Locator Transmitter	ARMED
Seat Belts and Shoulder Harnesses	SECURE
Cabin Door	UNLATCHED
Fuel Selector	OFF
Mixture	IDLE CUTOFF
Magneto/Starter	OFF
Wing Flaps	FULL DOWN (33 Degrees)
Landing Gear	DOWN or UP Depending on Terrain
Approach Speed	75 KIAS
Master Switch	OFF, prior to landing