**ENGINE COLD WEATHER OPERATIONS**

- **MINIMUM OIL INLET TEMPERATURE FOR STARTING**
  - -40°C (AFM)

- **WHEN TEMPERATURE < -10°C**
  - NG-18
    - **PERFORM AN ENGINE CRANK CYCLE**
      - 07-01-00
    - **NORMAL ENGINE START**
      - NG-16
      - **ALLOW HP AND LP TO REACH MAXIMUM LEVELS AND STABILIZE FOR 45 SECONDS. USE AN OUTSIDE OBSERVER TO VISUALLY CONFIRM LP ROTATION.**
      - **GENERATORS ON**
        - L ON
        - R ON

- **NOTE:** During ground idle power operation at extremely cold ambient temperatures, continuous ignition may be automatically activated concurrent with increased engine bleed. Continuous ignition will be indicated on the engine instruments and increased bleed will result in an audible change in engine noise. Steady state engine operation and performance is not impacted. This condition is self-clearing when the throttles are advanced from ground idle.

- **When taxiing or holding on the ground at low power in temperatures less than 1°C (34°F), engine operation of 40% LP for 10 seconds is recommended just prior to takeoff and at intervals of not more than 60 minutes under these temperature and moisture conditions.**

- **A portion of EB-38**
  - In freezing fog below minus 4°C (25°F), accelerate the engine to takeoff power in intervals of not more than 60 minutes. Stabilize the engine at takeoff power for a minimum of 5 seconds. Acceleration to takeoff power should include a 5 second throttle movement to 40% LP and pause for 2 seconds. Operation in freezing fog below minus 20°C (14°F) is prohibited.

- **EB-40**
  - +20°C MINIMUM FOR TAKEOFF POWER
  - 01-03-10
  - The wing and cowl anti-ice systems must be selected ON, if required, at least two (2) minutes prior to setting takeoff thrust.