If a start is made on continuous ignition, the engine ignition switch should not be placed to CONT until engine core speed has passed through 17%; otherwise, a too-early light-off may occur with resultant engine stall and/or overtemperature.

In the event of an engine shutdown, a restart at engine starting, using the foregoing automatic start procedures, may be made provided the maximum allowable engine temperatures have not been exceeded, and further provided the engine has been shut down for at least 2 hours. If a restart is to be attempted within a 2-hour period of the previous engine shutdown, the following procedure should be used:

a. Engine ignition switch - OFF.
b. Engine start switch - OFF.
c. Engine alternate throttle switch - Hold at DECR.
d. Engine start switch - START, then to RUN.
e. Engine alternate throttle switch - Release.
f. Motor engine at a minimum core speed of 25% rpm for at least 30 seconds.
g. Engine ignition switch - CONT.

Position switch while core speed is above 17%.
h. Normal throttle reset button - Press and release.
i. Engine start switch - Start, then to RUN.

Engine light-off is confirmed by observing a rise in engine temperature, after which the engine will accelerate to idle rpm without further action.

Observe all cautions previously described, except that third caution (failure to

start) should be changed to terminate start if light-off does not occur within 30 seconds of placing engine ignition switch to CONT. After engine has reached idle speed, place engine ignition switch to AUTO.

5. Engine instruments - Check.
   a. Power level - Less than 1
   b. Fan rpm - 36% to 45% rpm
   c. Engine temp - 300° to 600° C
   d. Fuel flow - 700 to 1,100 lb/hr
   e. Core rpm - 65% to 72% rpm
   f. Nozzle position - 72% to 82% open
   g. Oil pressure - 20 psi minimum
   h. Oil quantity - 60% to 90%

3A. Engines 2 and 4 oil quantity - Check 80% minimum.

4. Engines 2 and 4 - Start.
   Repeat steps 1 through 3 for other engines

5. ADS couple knobs (2) - DISEN.

6. Air data computer/flight instruments - Check.
   a. AWP - Set barometric pressure to 29.92 in. Hg
   b. Air data computer test switch - HIGH, then LOW. See figure 2-4 for acceptable responses.

NOTE
To keep from shutting off ECS precooler airflow during the test, both pilots are to complete this check before moving the APU mode switches to OFF.

7. APU mode switches (2) - OFF, then to RUN.

Wait a minimum of 30 seconds after last engine to be started has reached idle speed before switching APU's off.

8. APU fire buttons (2) - Press.

9. Fire button reset switches (2) - Slide to reset.

10. Pilot's stick lock - Remove and stow. Do not change strap adjustment, so that stick will be returned to same position when strap is reinstalled.