**ON A/C ALL

TASK 61−20−00−810−801
#1 PEC (Caution) − Fault Isolation

1. General

A. The fault isolation procedure is for when the #1 PEC caution light on the Caution and Warning Panel (CAWP) is on.

B. The #1 PEC caution light comes on when the propeller blade angle cannot be controlled and the engine torque bug needs to be monitored for available torque.

NOTE: When the #1 PEC caution light is on, the power lever should not be set less than the FLIGHT IDLE position. The propeller should be manually feathered before the power lever is set less than the FLIGHT IDLE position.

NOTE: The Propeller Electronic Controller 1 (PEC 1) will make the #1 PEC caution light come on when it senses a condition that follows:

- Two Beta Feedback Transducer (BETAFB) inputs have malfunctioned
- Two Magnetic Pickup Unit (MPU) inputs have malfunctioned
- Two Power Lever Angle (PLA) Rotary Variable Difference Transducer (RVDT) inputs have malfunctioned
- PLA ground beta enable switch has malfunctioned and cannot control the Ground Beta Enable (GBE) solenoid
- GBE solenoid has malfunctioned
- Torque motor has malfunctioned
- Overspeed Governor (OSG) test was unsatisfactory
- Full Authority Digital Electronic Control (FADEC) Permanent Magnet Alternator (PMA) does not supply good electrical power
- L ESSENTIAL bus does not supply electrical power
- Internal failure.

C. The #1 PEC caution light also comes on momentarily during the power−up testing.

D. The Engine Display (ED) can show the related fault codes that follow:

- 109, Fault Code 108/109. Watchdog spurious freeze
- 121, Fault Code 120/121. The beta on the active lane is more than the limit
- 123, Fault Code 122/123. The beta on the standby lane is more than the limits
- 125, Beta rate fail
- 127, Beta unreasonable
- 131, Beta unreliable in beta control
- 161, Local NP MPU extra pulses

– 163, NP disagrees with Qa and Qb speeds
– 167, Qb speed inconsistent
– 201, PLABETA stuck open
– 203, FADEC. PLA invalid
– 219, AUPC threshold fault
– 223, The GBE switch stays in the off position
– 225, The GBE switch stays in the closed position
– 237, AUPC active
– 239, The last OSG test was unsatisfactory
– 260, Servo current dmd and f/b disagree
– 263, Dummy load fault
– 265, Torquemotor current
– 301, ADC 0V ref out of range
– 303, ADC 5V ref out of range
– 305, QSM transfer completion error
– 307, ADC 7.5V ref out of range.

2. Job Set−Up Information

Subtask 61−20−00−946−101

A. Reference Information

REFERENCE	DESIGNATION
AMM TASK 61−20−00−710−804	Operational Test of the Propeller Fault Code Indication (MRB #612000−204)
FIM TASK 61−20−03−810−807	Fault Code 108/109. Watchdog spurious freeze − Fault Isolation
FIM TASK 61−20−03−810−813	Fault Code124/125. Beta rate fail − Fault Isolation
FIM TASK 61−20−03−810−814	Fault Code 126/127. Beta unreasonable − Fault Isolation
FIM TASK 61−20−03−810−815	Fault Code 130/131. Beta unreliable in beta control − Fault Isolation
FIM TASK 61−20−03−810−817	Fault Code 120/121. The beta on the active lane is more than the limits − Fault Isolation
FIM TASK 61−20−03−810−818	Fault Code 122/123. The beta on the standby lane is more than the limits − Fault Isolation
FIM TASK 61−20−04−810−813	Fault Code 160/161. Local NP MPU extra pulses − Fault Isolation

REFERENCE	DESIGNATION
FIM TASK 61−20−04−810−814	Fault Code 162/163. NP disagrees with Qa and Qb speeds − Fault Isolation
FIM TASK 61−20−04−810−822	Fault Code 164. Qa speed inconsistent − Fault Isolation
FIM TASK 61−20−04−810−823	Fault Code 166/167. Qb speed inconsistent − Fault Isolation
FIM TASK 61−20−05−810−817	Fault Code 200/201. PLABETA stuck open − Fault Isolation
FIM TASK 61−20−05−810−818	Fault Code 202/203. FADEC.PLA invalid − Fault Isolation
FIM TASK 61−20−05−810−822	Fault Code 236/237. AUPC active − Fault Isolation
FIM TASK 61−20−05−810−826	Fault Code 224/225. The GBE switch stays in the off position − Fault Isolation
FIM TASK 61−20−05−810−827	Fault Code 222/223. The GBE switch stays in the closed position − Fault Isolation
FIM TASK 61−20−05−810−829	Fault Code 238/239. The last OSG test was unsatisfactory − Fault Isolation
FIM TASK 61−20−05−810−841	Fault Code 218/219. AUPC threshold fault − Fault Isolation
FIM TASK 61−20−06−810−818	Fault Code 260. Servo current dmd and f/b disagree − Fault Isolation
FIM TASK 61−20−06−810−819	Fault Code 262/263. Dummy load fault − Fault Isolation
FIM TASK 61−20−06−810−829	Fault Code 264/265. Torquemotor current − Fault Isolation
FIM TASK 61−20−07−810−802	Fault Code 300/301. ADC 0V ref out of range − Fault Isolation
FIM TASK 61−20−07−810−803	Fault Code 302/303. ADC 5V ref out of range − Fault Isolation
FIM TASK 61−20−07−810−804	Fault Code 304/305. QSM transfer completion error − Fault Isolation
FIM TASK 61−20−07−810−805	Fault Code 306/307. ADC 7.5V ref out of range − Fault Isolation

3. Fault Confirmation

Subtask 61−20−00−810−793

A. Confirm the fault as follows:

(1) Do the operational check for propeller fault code indications (Refer to AMM TASK 61−20−00−710−804).

(2) If there is no fault code, no maintenance procedure is necessary. Do the Close Out.

(3) If there is a fault code, do the Fault Isolation.

4. Fault Isolation

Subtask 61−20−00−810−027

A. Isolate the fault as follows:

(1) If the fault code is 109, do the fault isolation for fault code 108/109 (Refer to FIM TASK 61−20−03−810−807). Do the Close Out.

(2) If the fault code is 121, do the fault isolation for fault code 120/121 (Refer to FIM TASK 61−20−03−810−817). Do the Close Out.

(3) If the fault code is 123, do the fault isolation for fault code 122/123 (Refer to FIM TASK 61−20−03−810−818).

(4) If the fault code is 125, do the fault isolation for fault code 124/125 (Refer to FIM TASK 61−20−03−810−813). Do the Close Out.

(5) If the fault code is 127, do the fault isolation for fault code 126/127 (Refer to FIM TASK 61−20−03−810−814). Do the Close Out.

(6) If the fault code is 131, do the fault isolation for fault code 130/131 (Refer to FIM TASK 61−20−03−810−815). Do the Close Out.

(7) If the fault code is 161, do the fault isolation for fault code 160/161 (Refer to FIM TASK 61−20−04−810−813). Do the Close Out.

(8) If the fault code is 163, do the fault isolation for fault code 162/163 (Refer to FIM TASK 61−20−04−810−814). Do the Close Out.

(9) If the fault code is 167, do the fault isolation for fault code 166/167 (Refer to FIM TASK 61−20−04−810−823). Do the Close Out.

(10) If the fault code is 201, do the fault isolation for fault code 200/201 (Refer to FIM TASK 61−20−05−810−817). Do the Close Out.

(11) If the fault code is 203, do the fault isolation for fault code 202/203 (Refer to FIM TASK 61−20−05−810−818). Do the Close Out.

(12) If the fault code is 219, do the fault isolation for fault code 218/219 (Refer to FIM TASK 61−20−05−810−841). Do the Close Out.

(13) If the fault code is 223, do the fault isolation for fault code 222/223 (Refer to FIM TASK 61−20−05−810−827). Do the Close Out.

(14) If the fault code is 225, do the fault isolation for fault code 224/225 (Refer to FIM TASK 61−20−05−810−826). Do the Close Out.

(15) If the fault code is 237, do the fault isolation for fault code 236/237 (Refer to FIM TASK 61−20−05−810−822). Do the Close Out.

(16) If the fault code is 239, do the fault isolation for fault code 238/239 (Refer to FIM TASK 61−20−05−810−829). Do the Close Out.

(17) If the fault code is 260, do the fault isolation for fault code 260 (Refer to FIM TASK 61−20−06−810−818). Do the Close Out.

(18) If the fault code is 263, do the fault isolation for fault code 262/263 (Refer to FIM TASK 61−20−06−810−819). Do the Close Out.

(19) If the fault code is 265, do the fault isolation for fault code 264/265 (Refer to FIM TASK 61−20−06−810−829). Do the Close Out.

(20) If the fault code is 301, do the fault isolation for fault code 300/301 (Refer to FIM TASK 61−20−07−810−802). Do the Close Out.

(21) If the fault code is 303, do the fault isolation for fault code 302/303 (Refer to FIM TASK 61−20−07−810−803). Do the Close Out.

(22) If the fault code is 305, do the fault isolation for fault code 304/305 (Refer to FIM TASK 61−20−07−810−804). Do the Close Out.

(23) If the fault code is 307, do the fault isolation for fault code 306/ 307 (Refer to FIM TASK 61−20−07−810−805). Do the Close Out.

5. Close Out

Subtask 61−20−00−942−001

A. Make sure that the #1 PEC caution light is not on.

B. Remove all tools, equipment and unwanted materials from the work area.