

## T-6B EMERGENCY PROCEDURE CRITICAL ACTION MEMORY ITEMS & OPERATING LIMITATIONS

### EMERGENCY PROCEDURE CRITICAL ACTION MEMORY ITEMS

#### ABORT START PROCEDURE

- \*1. PCL – OFF or STARTER switch – AUTO/RESET

#### EMERGENCY ENGINE SHUTDOWN ON THE GROUND

- \*1. PCL – OFF
- \*2. FIREWALL SHUTOFF HANDLE – PULL
- \*3. EMERGENCY GROUND EGRESS – AS REQUIRED

#### EMERGENCY GROUND EGRESS

- \*1. ISS MODE SELECTOR – SOLO
- \*2. SEAT SAFETY PIN – INSTALL (BOTH)
- \*3. PARKING BRAKE – AS REQUIRED
- \*4. CANOPY – OPEN

IF CANOPY CANNOT BE OPENED OR SITUATION REQUIRES RIGHT SIDE EGRESS:

- \*5. CFS HANDLE SAFETY PIN – REMOVE (BOTH)
- \*6. CFS HANDLE - ROTATE 90° COUNTERCLOCKWISE AND PULL (BOTH)
- \*7. UPPER FITTINGS, LOWER FITTINGS, AND LEG RESTRAINT GARTERS – RELEASE (BOTH)
- \*8. BAT, GEN, AND AUX BAT SWITCHES – OFF
- \*9. EVACUATE AIRCRAFT

#### ABORT

- \*1. PCL – IDLE
- \*2. BRAKES – AS REQUIRED

#### ENGINE FAILURE IMMEDIATELY AFTER TAKEOFF (SUFFICIENT RUNWAY REMAINING STRAIGHT AHEAD)

- \*1. AIRSPEED – 110 KNOTS (MINIMUM)
- \*2. PCL – AS REQUIRED
- \*3. EMER LDG GR HANDLE – PULL (AS REQUIRED)
- \*4. FLAPS – AS REQUIRED

#### ENGINE FAILURE DURING FLIGHT

- \*1. ZOOM/GLIDE – 125 KNOTS (MINIMUM)
- \*2. PCL – OFF
- \*3. INTERCEPT ELP
- \*4. AIRSTART – ATTEMPT IF WARRANTED

IF CONDITIONS DO NOT WARRANT AN AIRSTART:

- \*5. FIREWALL SHUTOFF HANDLE – PULL
- \*6. EXECUTE FORCED LANDING OR EJECT

IMMEDIATE AIRSTART (PMU NORM)

- \*1. PCL – OFF
- \*2. STARTER SWITCH – AUTO/RESET
- \*3. PCL – IDLE, ABOVE 13% N1
- \*4. ENGINE INSTRUMENTS – MONITOR ITT, N1, AND OIL PRESSURE

IF AIRSTART IS UNSUCCESSFUL:

- \*5. PCL – OFF
- \*6. FIREWALL SHUTOFF HANDLE – PULL
- \*7. EXECUTE FORCED LANDING OR EJECT

IF AIRSTART IS SUCCESSFUL:

- \*8. PCL – AS REQUIRED AFTER N1 REACHES IDLE RPM (APPROXIMATELY 67% N1)
- \*9. PEL – EXECUTE

UNCOMMANDED POWER CHANGES / LOSS OF POWER/ UNCOMMANDED PROPELLER FEATHER

- \*1. PCL – MID RANGE
- \*2. PMU SWITCH – OFF
- \*3. PROP SYS CIRCUIT BREAKER (Left Front Console) – PULL, IF Np STABLE BELOW 40%
- \*4. PCL – AS REQUIRED

IF POWER IS SUFFICIENT FOR CONTINUED FLIGHT:

- \*5. PEL – EXECUTE

IF POWER IS INSUFFICIENT TO COMPLETE PEL:

- \*6. PROP SYS CIRCUIT BREAKER – RESET, AS REQUIRED
- \*7. PCL – OFF
- \*8. FIREWALL SHUTOFF HANDLE – PULL
- \*9. EXECUTE FORCED LANDING OR EJECT

COMPRESSOR STALLS

- \*1. PCL – SLOWLY RETARD BELOW STALL THRESHOLD
- \*2. DEFOG SWITCH – ON
- \*3. PCL – SLOWLY ADVANCE (AS REQUIRED)

IF POWER IS SUFFICIENT FOR CONTINUED FLIGHT:

- \*4. PEL – EXECUTE

IF POWER IS INSUFFICIENT TO COMPLETE PEL:

- \*5. PCL – OFF
- \*6. FIREWALL SHUTOFF HANDLE – PULL
- \*7. EXECUTE FORCED LANDING OR EJECT

INADVERTENT DEPARTURE FROM CONTROLLED FLIGHT

- \*1. PCL – IDLE
- \*2. CONTROLS - NEUTRAL
- \*3. ALTITUDE - CHECK
- \*4. RECOVER FROM UNUSUAL ATTITUDE

FIRE IN FLIGHT

IF FIRE IS CONFIRMED:

- \*1. **PCL – OFF**
- \*2. **FIREWALL SHUTOFF HANDLE – PULL**

IF FIRE IS EXTINGUISHED:

- \*3. **FORCED LANDING – EXECUTE**

IF FIRE DOES NOT EXTINGUISH OR FORCED LANDING IS IMPRACTICAL:

- \*4. **EJECT (BOTH)**

IF FIRE IS NOT CONFIRMED:

- \*5. **PEL – EXECUTE**

SMOKE AND FUME ELIMINATION/ELECTRICAL FIRE

- \*1. **OBOGS – CHECK (BOTH)**
  - a. **OBOGS supply lever – ON**
  - b. **OBOGS concentration lever – MAX**
  - c. **OBOGS pressure lever - EMERGENCY**

CHIP DETECTOR WARNING

- \*1. **PCL – MINIMUM NECESSARY TO INTERCEPT ELP; AVOID UNNECESSARY PCL MOVEMENTS**
- \*2. **PEL – EXECUTE**

OIL SYSTEM MALFUNCTION OR LOW OIL PRESSURE

IF ONLY AMBER OIL PX caution ILLUMINATES:

- \*1. **TERMINATE MANEUVER**
- \*2. **CHECK OIL PRESSURE; IF OIL PRESSURE IS NORMAL, CONTINUE OPERATIONS**

IF RED OIL PX WARNING ILLUMINATES AND/OR AMBER OIL PX CAUTION REMAINS ILLUMINATED FOR 5 SECONDS, OIL PRESSURE FLUCTUATIONS, OR OIL TEMPERATURE OUT OF LIMITS:

- \*3. **PCL – MINIMUM NECESSARY TO INTERCEPT ELP; AVOID UNNECESSARY PCL MOVEMENTS**
- \*4. **PEL – EXECUTE**

LOW FUEL PRESSURE

- \*1. **PEL – EXECUTE**
- \*2. **BOOST PUMP SWITCH – ON**

OBOGS FAIL MESSAGE

- \*1. **PCL – ADVANCE**

OBOGS FAILURE / PHYSIOLOGICAL SYMPTOMS

- \*1. **GREEN RING – PULL (AS REQUIRED) (BOTH)**
- \*2. **DESCENT BELOW 10,000 FEET MSL – INITIATE**
- \*3. **DISCONNECT MAIN OXYGEN SUPPLY HOSE FROM CRU-60P**

EJECT

- \*1. **EJECTION HANDLE – PULL (BOTH)**

FORCED LANDING

- \*1. AIRSPEED – 125 KIAS PRIOR TO EXTENDING LANDING GEAR
- \*2. EMER LDG GR HANDLE – PULL (AS REQUIRED)
- \*3. AIRSPEED – 120 KIAS MINIMUM UNTIL INTERCEPTING FINAL; 110 KIAS MINIMUM ON FINAL
- \*4. FLAPS – AS REQUIRED

PRECAUTIONARY EMERGENCY LANDING (PEL)

- \*1. TURN TO NEAREST SUITABLE FIELD
- \*2. CLIMB OR ACCELERATE TO INTERCEPT ELP
- \*3. GEAR, FLAPS, SPEED BRAKE – UP

ENGINE OPERATING LIMITS TABLE						
POWER SETTING	TORQUE %	ITT °C	N <sub>1</sub> % (1)	N <sub>P</sub> % (4)	OIL PRESSURE psi	OIL TEMP °C
TAKEOFF/MAX	<u>100</u> Max	<u>820</u> Max	<u>104</u> Max	<u>100</u> Max (2)	<u>90</u> to <u>120</u> (6)	<u>10</u> to <u>105</u>
IDLE	<u>1</u> to <u>10</u> % (9) (ground)	<u>750</u> Max	<u>60</u> to <u>61</u> (ground) <u>67</u> Min (flight)	<u>46</u> to <u>50</u> (ground)	<u>90</u> Min	<u>-40</u> to <u>105</u> (Grnd) <u>10</u> to <u>105</u> (Flt) <u>106</u> to <u>110</u> (7)
START	---	<u>871-1000</u> ( <u>5</u> sec)	---	---	<u>200</u> Max	<u>-40</u> Min
TRANSIENT	<u>132</u> Max ( <u>20</u> sec)(8)	<u>821-870</u> ( <u>20</u> sec)	<u>104</u> Max	<u>110</u> (3) ( <u>20</u> sec)	<u>40</u> to <u>130</u> (5)	<u>106</u> to <u>110</u> ( <u>10</u> minutes)

**NOTES**

- N<sub>1</sub> values presented for PMU ON. With PMU OFF, N<sub>1</sub> may vary from these values.
- With PMU OFF, permissible maximum N<sub>P</sub> is 100 +/- 2 %.
- Permissible at all powers for completion of flight in emergency.
- Avoid stabilized ground operation from 62 to 80 % N<sub>P</sub>.
- Operation in this range permitted only during aerobatics or spins, and 15 to 40 psi for 5 seconds with PCL at IDLE.
- Normal oil pressure during steady state conditions is 90 to 120 psi. Operation at oil pressure less than 90 psi at flight idle or above is indicative of oil system malfunction.
- Acceptable for ground operation at and below 20% torque.
- Torque at 132% is a materials limit above which damage to the engine may occur. Torque above 102% is indicative of a system malfunction.
- Allowable torque range with N<sub>P</sub> stabilized and PCL at IDLE.

AIRSPEED LIMITATIONS	STARTER CYCLE LIMITATIONS
MAXIMUM AIRSPEED GEAR DOWN (V <sub>LE</sub> ) & FLAP DOWN (V <sub>FE</sub> ) <u>150</u> KIAS	STARTER DUTY CYCLE IS LIMITED TO FOUR <u>20 SEC</u> CYCLES
MAX OPERATING (V <sub>MO</sub> ) <u>316</u> KIAS / MAX MACH (M <sub>MO</sub> ) <u>0.67</u> MACH	COOLING PERIOD AFTER FIRST STARTER CYCLE <u>30 SEC</u>
TURBULENT AIR PENETRATION SPEED, MAXIMUM: <u>207</u> KIAS	COOLING PERIOD AFTER SECOND STARTER CYCLE <u>2 MIN</u>
	COOLING PERIOD AFTER THIRD STARTER CYCLE <u>5 MIN</u>
	COOLING PERIOD AFTER FOURTH STARTER CYCLE <u>30 MIN</u>
PROHIBITED MANEUVERS	FLIGHT MANEUVERING LIMITATIONS
1. INVERTED STALLS	INVERTED FLIGHT <u>60</u> sec
2. INVERTED SPINS	INTENTIONAL ZERO G FLIGHT <u>5</u> sec
3. SPINS WITH PCL ABOVE IDLE	NEGATIVE G FLIGHT
4. SPINS WITH THE LANDING GEAR, FLAPS, OR SPEEDBRAKE EXTENDED	Negative G Operations <u>60</u> sec
5. SPINS WITH THE PMU OFF	Do not exceed -2.5 G for longer than <u>30</u> sec
6. AGGRAVATED SPINS PAST TWO TURNS	Min. pos. Gs upright before additional neg. Gs <u>60</u> sec
7. SPINS BELOW 10,000 FEET PRESSURE ALTITUDE	ACCELERATION LIMITATIONS
8. SPINS ABOVE 22,000 FEET PRESSURE ALTITUDE	SYMMETRIC CLEAN <u>+ 7.0 TO - 3.5</u> Gs
9. ABRUPT CROSS-CONTROLLED (SNAP) MANEUVERS	SYMMETRIC GEAR & FLAPS EXTENDED <u>+ 2.5 TO 0.0</u> Gs
10. AEROBATIC MANEUVERS, SPINS, OR STALLS WITH A FUEL IMBALANCE GREATER THAN 50 POUNDS BETWEEN WINGS	ASYMMETRIC CLEAN <u>+ 4.7 TO - 1.0</u> Gs
11. TAIL SLIDES	ASYMMETRIC GEAR & FLAPS EXTENDED <u>+ 2.0 TO 0.0</u> Gs
THE AIRCRAFT HAS BEEN APPROVED ONLY FOR TRANSIT THROUGH <u>5000</u> FEET OF <u>LIGHT RIME</u> ICE.	FOR UNCOORDINATED ROLLING MANEUVERS INITIATED AT <u>-1</u> G, THE MAXIMUM BANK ANGLE CHANGE IS <u>180</u> DEGREES
MINIMUM BATTERY VOLTAGE: <u>22.0</u> VOLTS	OTHER LIMITATIONS
HYDRAULIC CAUTION: < <u>1800</u> PSI, > <u>3500</u> PSI	MIN VOLTAGE FOR BATTERY START <u>23.5</u> VOLTS
FUEL CAUTION LIGHT: < <u>110</u> POUNDS IN RESPECTIVE WING TANK	MAX CROSSWIND FOR DRY RUNWAY <u>25</u> KNOTS
COCKPIT PRESSURIZATION SCHEDULE LIMIT: <u>3.6</u> +/- <u>0.2</u> PSI	MAX CROSSWIND FOR WET RUNWAY <u>10</u> KNOTS
	MAX CROSSWIND FOR ICY RUNWAY <u>5</u> KNOTS
	MAX TAILWIND COMPONENT FOR TAKEOFF <u>10</u> KNOTS