The T-6B On-Board Oxygen Generating System (OBOGS) utilizes bleed air through the left-side P3 port.

Air is sent through the Oxygen System shutoff valve, OBOGS heat exchanger, and low pressure and high pressure temperature switches

- If air temperature exceeds 200 deg Farenheit, OBOGS TEMP caution is triggered

Air is sent into the OBOGS unit on the rear right side of the aircraft which extracts oxygen from conditioned bleed air

Oxygen is then held within the plenum

Oxygen Regulators

- If either cockpit’s regulator is set to ON, OBOGS is operative. However, the respective lever must be ON to receive oxygen
- Concentrator: MAX vs. Normal
- Regulator Pressure Lever: NORMAL (slight positive pressure), EMERGENCY (used in hypoxic situations), and TEST MASK
- Regulator Flow Indicator

The Anti-Suffocation Valve allows for continued breathing of ambient air if OBOGS failed
Applicable EICAS Indications:

**OBOGS FAIL warning**: OBOGS system malfunction, lights whenever low pressure switch is closed, which occurs whenever there is low bleed air pressure before the concentrator.

**OBOGS TEMP caution**: OBOGS temperature above 200 deg F

Applicable Emergency Procedures:

**OBOGS SYSTEM MALFUNCTION**

If the engine has failed or has been shutdown, refer to OBOGS Inoperative procedures. Illumination of the OBOGS FAIL warning indicates the OBOGS system is no longer producing sufficient oxygen concentration or pressure. This condition may indicate a failure of the OBOGS heat exchanger, concentrator, bleed air supply, electrical system interface, or excessive system leakage. Failure of the OBOGS system may be accompanied by reduced pressure and/or quantity of breathing gas and may result in hypoxia symptoms if corrective action is not taken immediately.

**WARNING**
- If the battery fails, OBOGS will be inoperative.

* 1. PCL – Advance

**NOTE**
- Advance PCL as required to extinguish OBOGS FAIL warning. At low bleed air pressure conditions (e.g., PCL idle at high altitudes), bleed air pressure may drop sufficiently to momentarily illuminate the OBOGS FAIL warning. This does not necessarily indicate an OBOGS failure. If OBOGS FAIL warning extinguishes, continue flight.

2. OBOGS - CHECK (BOTH):
   a. OBOGS supply lever - ON
   b. OBOGS concentration lever - MAX
   c. OBOGS pressure lever – EMERGENCY

**WARNING**
- It is possible to experience hypoxia symptoms if OBOGS has malfunctioned and cabin altitude is above 10,000 feet.

**CAUTION**
- When breathing oxygen under increased pressure, breathe at a rate and depth slightly less than normal to preclude hyperventilation.
NOTE
- The OBOGS FAIL warning will illuminate if both supply levers are set to OFF with the engine running.

IF OBOGS FAIL WARNING REMAINS ILLUMINATED:

3. OBOGS inoperative procedure - Execute

OBOGS INOPERATIVE

If the OBOGS system is determined to be inoperative due to engine failure or engine shutdown, or OBOGS System Malfunction procedures do not resolve the malfunction, proceed as follows:

WARNING
- If hypoxia is experienced or suspected, land as soon as conditions permit.
- Anytime cabin pressure exceeds 10,000 feet and either OBOGS and/or cabin pressure is lost, an emergency descent to a cabin altitude of 10,000 feet or below must be accomplished. Use of emergency oxygen is required when OBOGS is lost and cabin pressure exceeds 10,000 feet pressure equivalent. Once emergency oxygen is activated, descent to aircraft altitudes at or below 10,000 feet MSL is essential within 10 minutes of activation of emergency oxygen.
- If the battery fails, OBOGS will be inoperative.

* 1. GREEN RING - PULL (AS REQUIRED)

When breathing oxygen under increased pressure, breathe at a rate and depth slightly less than normal to preclude hyperventilation.

NOTE
- When the emergency oxygen system is actuated, high pressure air may make verbal communication with the other crewmember or ATC more difficult.
- Once activated, emergency oxygen cannot be shut off and will provide oxygen flow until the cylinder is depleted (10 minutes).

2. Descent below cabin altitude of 10,000 feet – Initiate

3. Disconnect main oxygen supply hose from CRU-60/P

NOTE
- Avoid inadvertently disconnecting COMM cable when disconnecting main oxygen hose.
- Disconnecting the main oxygen supply hose from the CRU-60/P is recommended as it improves breathing capability by providing pressure relief and improves anti-suffocation capability by reducing resistance.

4. OBOGS – OFF (BOTH)

5. Land as soon as practical
OBOGS SYSTEM MALFUNCTION (ZEOLITE DUST IN OXYGEN MASK)

An OBOGS system malfunction may occur without the illumination of the message light. Indications of the malfunction include respiratory irritation, coughing, or the presence of white dust in the oxygen mask. This could indicate a malfunction of the OBOGS concentrator beds, which are releasing zeolite and binder material into the breathing system. Pilots should check their masks for the presence of a white dust or powder. If dust is found, proceed as follows:

1. **Green ring – Pull (As required)**

**WARNING**
- The OBOGS concentrator may malfunction resulting in zeolite dust in the breathing system without an illumination of the EICAS message light. Indications of the malfunction include respiratory irritation, coughing, or the presence of white dust in the oxygen mask. Adequate oxygen concentration is still available to the pilots. Prolonged inhalation of zeolite dust should be avoided.
- Emergency oxygen bottle provides approximately 10 minutes of oxygen. If aircraft pressure altitude is above 10,000 feet MSL, ensure the aircraft reaches an altitude of 10,000 feet MSL or lower prior to exhaustion of the emergency oxygen supply or the effects of hypoxia may incapacitate the crew.

**CAUTION**
- When breathing oxygen under increased pressure, breathe at a rate and depth slightly less than normal to preclude hyperventilation.

**NOTE**
- When the emergency oxygen system is actuated, high pressure air may make verbal communication with the other crewmember or ATC more difficult.
- Once activated, emergency oxygen cannot be shut off and will provide oxygen flow until the cylinder is depleted (10 minutes).

2. **Descent below cabin altitude of 10,000 feet – Initiate**

3. **Disconnect main oxygen supply hose from CRU-60/P**

**NOTE**
- Avoid inadvertently disconnecting COMM cable when disconnecting main oxygen hose.
- Disconnecting the main oxygen supply hose from the CRU-60/P is recommended as it improves breathing capability by providing pressure relief and improves anti-suffocation capability by reducing resistance.

4. **OBOGS – OFF (BOTH)**

5. **Oxygen mask – Remove (below 10,000 feet cabin altitude)**

6. **Land as soon as practical**
OBOGS OVERTEMP

Illumination of the OBOGS TEMP caution indicates a failure of the OBOGS heat exchanger.

1. Green ring – Pull (as required)

WARNING
- Emergency oxygen bottle provides approximately 10 minutes of oxygen. If aircraft pressure altitude is above 10,000 feet MSL, ensure the aircraft reaches an altitude of 10,000 feet MSL or lower prior to exhaustion of the emergency oxygen supply or the effects of hypoxia may incapacitate the crew.

CAUTION
- When breathing oxygen under increased pressure, breathe at a rate and depth slightly less than normal to preclude hyperventilation.

NOTE
- When the emergency oxygen system is actuated, high pressure air may make verbal communication with the other crewmember or ATC more difficult.
- Once activated, emergency oxygen cannot be shut off and will provide oxygen flow until the cylinder is depleted (10 minutes).

2. Descent below cabin altitude of 10,000 feet – Initiate

3. Disconnect main oxygen supply hose from CRU-60/P

NOTE
- Avoid inadvertently disconnecting COMM cable when disconnecting main oxygen hose.
- Disconnecting the main oxygen supply hose from the CRU-60/P is recommended as it improves breathing capability by providing pressure relief and improves anti-suffocation capability by reducing resistance.

4. OBOGS – OFF (BOTH)

5. Land as soon as practical