OXYGEN PURGE SYSTEM DESCRIPTION

The oxygen purge system consists of two oxygen reservoirs (OPS bottles), an OPS bottle pressure gage, high pressure lines and fittings, a valve control mechanism and a regulator assembly and a regulator checkout system.

The OPS is operational in the following modes:

1. Purge. Used in the event of PLSS ventilation or contaminant control malfunction (suit purge valve open).
   a. Low Flow Purge (4#/hr). When used in conjunction with BSLSS cooling.
   b. High Flow Purge (8#/hr). When used as a completely independent system.

2. Makeup. Used to replace O_2 lost due to excessive suit leakage (suit purge valve closed) or a fail-closed primary regulator.

The OPS regulates at $3.70 \pm .30$ psid.

In the event of failure in the PLSS, the OPS is activated by moving a lever on the actuation cable and lever assembly. This opens the OPS oxygen shutoff valve, releasing high pressure oxygen to a regulator where the pressure is dropped to suit pressure, and the gas flows via a flexible hose to the PGA.

The oxygen flow from the OPS provides oxygen for respiration and convective cooling of the astronaut and visor defogging.

The OPS can be mounted in three different configurations depending on its intended use:

1. Lunar Surface EVA - mounted on top of PLSS.

2. Command Module EVA - mounted against the back of the crewman's helmet.

3. Contingency LM to CM Transfer - mounted on abdomen.