Miltech Simulations-Microsoft C-17 Globemaster III

Pneumatic/Environmental System

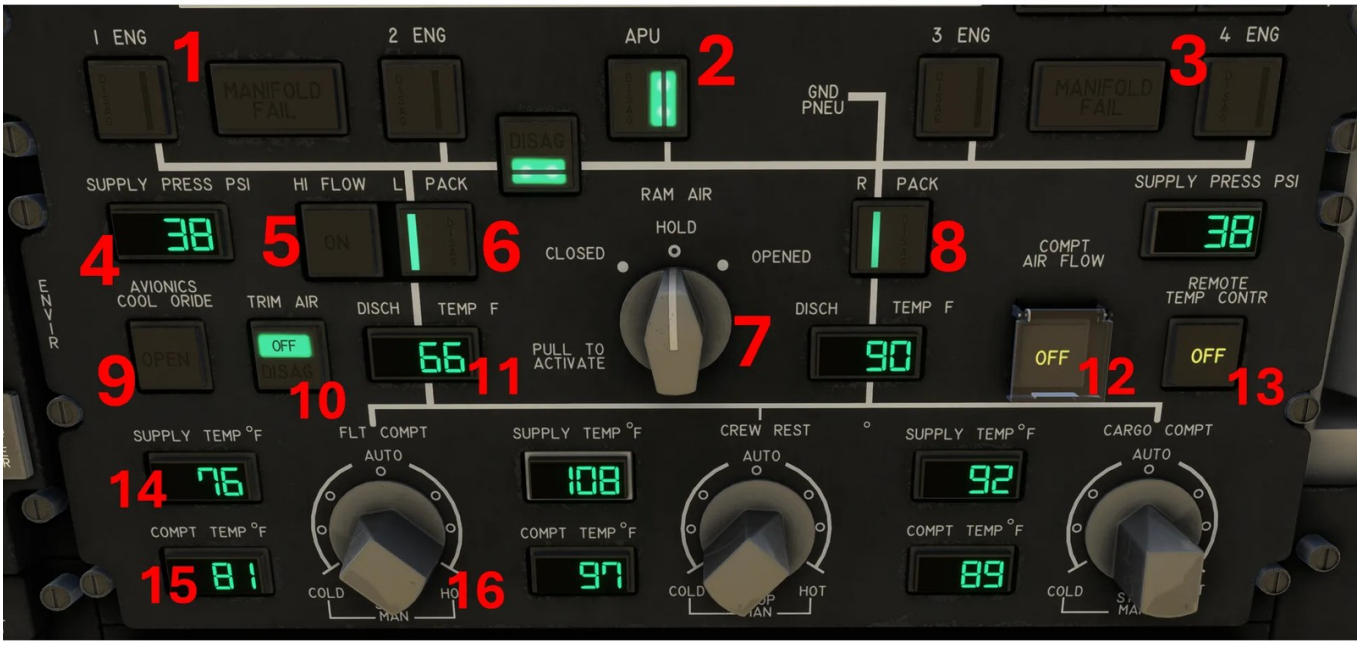
The Environmental/Pneumatic System consists of various sub-systems that all have in common the fact that air is used in one way or another, and that provide pneumatic supply, and environmental or ice protection for the crew and passengers. These subsystems are:

- Bleed Air Supply
- Air Conditioning
- Cargo Compartment Ventilation
- Pressurization

Bleed Air Supply and Air Conditioning

The Bleed Air Supply is the main source of pneumatic supply on the aircraft. Airflow is supplied from the APU or Engines, and enters a crosswing manifold that ducts the air to the engine start, air conditioning, avionics cooling or ice protection.

The system consists of four main engine bleeds, one for each engine, and one APU Bleed. All bleeds are connected by a Bleed XFEED Valve. Two separate and independent air conditioning packs thermoregulate the bleed air and distribute it into three distinct temperature sections - Cockpit, Crew Rest and Cargo.



Bleed Air Supply / Air Con Panel

1. **Engine 1-2 Bleeds:** Provides means of selecting the engine bleed air source for the pneumatic system (ENGs 1/2). Pressing the switchlight opens the engine pressure valve and illuminates the flow line.
2. **APU Bleed:** Provides means of selecting the APU bleed air for pneumatic pressure.
3. **Engine 3-4 Bleeds:** Provides means of selecting the engine bleed air source for the pneumatic system (ENGs 3/4). Pressing the switchlight opens the engine pressure valve and illuminates the flow line.

4. **Supply Press Indicator, PSI:** Digital displays undicate the bleed air pressure available at each wing manifold. Normal operating pressure is 44 +- 4 PSI.
5. **High Flow:** INOP
6. **Left Pack:** Controls the bleed air to the left air conditioning packs.
7. ◉ **Ram Air Knob:** INOP
8. **Right Pack:** Controls the bleed air to the right air conditioning packs.
9. **Avionics Cool Override:** INOP
10. **Trim Air:** INOP
11. **Discharge Temperature Indicator:** Displays the pack discharge temperature
12. **Compartment Air Flow:** INOP
13. **Remote Temperature Controller:** INOP
14. **Supply Temperature:** Provides methods to monitor and control the temperatures on the Flight Compartment, Crew Rest and Cargo Compartment respectively. Supply Temperature is the temperature at the entrance to each compartment.
15. **Compartment Temperature:** Provides methods to monitor and control the temperatures on the Flight Compartment, Crew Rest and Cargo Compartment respectively. Compartment Temperature is the actual temperature of the associated compartment.
16. ◇ **Temperature Selector:** Provides means to select and control the actual temperature of any of the compartments.