The KC-46 Pegasus is the next-generation air-to-air refuelling aircraft being built by Boeing for the US Air Force.

Cobham is a major subcontractor for the KC-46 programme. Six Cobham Business Units provide content to the aircraft. Here you can find out what pieces of content we’ve designed, manufactured and supply for this important programme.

Our products on the KC-46

- **Oxygen Pressure Reducer**
  - Converts high-pressure oxygen to a lower, more manageable pressure for use in emergency aircraft systems. Should an emergency occur in-flight, the regulator will supply life-saving oxygen to crew members, allowing them to continue their work while keeping the mission on track.

- **Oxygen System Shutoff Valve**
  - If any part of the aircraft oxygen system is compromised, this valve will act to close the failed portion of the line to conserve vital oxygen and protect the aircraft from a high oxygen concentration which could lead to a fire.

- **Panel Mounted Oxygen Regulators**
  - The automatic, diluter-demand, pressure breathing, oxygen regulator is designed for use by aircraft crew members in high altitude flight. The oxygen regulators provide regulated breathing oxygen to pilots and aircrew from the aircraft’s primary gaseous oxygen system. In this diluter-demand system, as altitude increases, so too does the oxygen flow so the partial pressure of oxygen is roughly constant.

- **Flat Plate Slotted Array Antenna**
  - This is a flat plate antenna that forms part of the weather radar system on the KC-46. Its job is to facilitate data collection and analysis of weather occurrences to enable safer, smoother and more efficient flights.

- **VHF/UHF Tuneable Antenna and Logic Converter Unit**
  - Using frequency information supplied by the radio (ARC-210), the Logic Converter Unit tunes the antenna to provide optimal electrical performance. The antenna gives an exceptionally good performance over a very large bandwidth and is in use with most airborne military radios today. There are three sets of Tuneable Antennas and Logic Converter Units on the KC-46 capable of providing vital air-to-air and air-to-ground communications for the crew.

- **Body Fuel Tank**
  - There are four identical body fuel tanks per KC-46 aircraft. The fuel tanks provide the fuel offload capability required by the United States Air Force. The fuel from the Body Fuel Tanks is pumped to the centre fuel tank on the aircraft to replenish and supplement fuel offloaded and used by the KC-46. The tanks are approximately 10 feet wide, 5 feet in height and 5 feet deep.

- **Drogue Aerial Refuelling System**
  - Incorporates the Wing Aerial Refuelling Pod (WARP) and Centreline Drogue System (CDS). The Drogue Aerial Refuelling System enables the transfer of fuel from the KC-46 tanker aircraft to a receiver aircraft such as a fighter jet, during flight. The KC-46 can refuel a range of probe-equipped fighter aircraft to extend their range, allowing them to fly further, longer, faster and more efficiently. This makes it possible for fighters to cover the distances needed to reach remote conflict zones.

- **Fuel Tank Inerting (OBIGGS) Air Separation Module and Oxygen Sensor**
  - Operating as the heart of the OBIGGS fuel tank inerting system, Cobham’s Air Separation Module is the next generation system designed for fuel tank inerting. Our Air Separation Module increases aircraft and passenger safety by providing a continuous flow of nitrogen enriched gas into the fuel tanks to reduce flammability and the likelihood of a fuel tank explosion. Cobham’s Oxygen Sensor monitors the oxygen level of the air that leaves the Air Separation Module, providing even greater confidence that the fuel tanks are receiving the proper amount of nitrogen-enriched air and further increasing safety.

- **Combined VHF/UHF Communications and UHF SATCOM Antenna**
  - This antenna is composed of two separate antenna elements capable of providing terrestrial air-to-air or air-to-ground very high frequency (VHF) or ultra high frequency (UHF) communications, and ultra high frequency satcom with near hemispheric coverage.

- **HGA-7001 High-Gain SATCOM Antenna**
  - This antenna provides a long range communications system for the flight deck. The KC-46 is powered by two engines so the antenna is required for the aircraft to comply with Extended Operations standards which permit aircraft to fly long-distance routes that had previously been off-limits to twin-engine aircraft.

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