PARTS OF AIRCRAFT AND SPACECRAFT

COCKPIT - The cockpit houses the pilot and almost all of the flight control and avionics.

FUSELAGE - The fuselage houses the passengers/cargo and supports all the other structures of the aircraft.
PARTS OF AN AIRCRAFT

• **WINGS** - The wings are the main lift producing devices in an aircraft. In most of the airplanes, the fuel is also stored in the wings.

• **HORIZONTAL TAIL** - The horizontal tail provides additional lift and pitching stability of the aircraft.

PARTS OF AN AIRCRAFT

• **VERTICAL TAIL** - The vertical tail provides for yaw stability (about the vertical axis, the axis perpendicular to the local ground reference).

• **ENGINES** - The engines provide the required thrust for flight. The engines are normally mounted on the fuselage or the wings.

PARTS OF AN AIRCRAFT

• **AILERONS** - The ailerons are used to provide roll control of the aircraft.

• **FLAPS** - Flaps are high lift devices deployed during takeoff and landing.

• **SLATS** - These are also high lift devices present in the wings, and provide higher lift.

PARTS OF AN AIRCRAFT

• **ELEVATORS** - The elevators help in pitch control.

• **TABS** - Tabs are used on control surfaces to reduce hinge moments.

• **RUDDER** - Rudder provides for yaw control.

PARTS OF A SATELLITE

• The main components of a spacecraft include
  - High Gain Antenna (HGA)
  - Bus
  - Sensors
  - Thrusters
  - Solar Panels
  - Power Module
PARTS OF A SATELLITE

• HIGH GAIN ANTENNA (HGA) - The HGA transmits data to Earth on two frequency channels.

• BUS - The bus is the body or the basic structure of the spacecraft. It contains compartments for electronic circuits, and carries various subsystems and scientific instruments.

PARTS OF A SATELLITE

• SENSORS - The sensors are used to collect data through the antennae or sense the ambient conditions of the satellite.

• THRUSTERS - The Thrusters are used to provide small impulses for changing the attitude of the spacecraft when required.

PARTS OF A SATELLITE

• SOLAR PANELS - The solar panels are used to draw energy from the sun and transmits it to the power module.

• POWER MODULE - The power module provides the electric power supply to the entire spacecraft.