



SNS COLLEGE OF TECHNOLOGY
(An Autonomous Institution)
COIMBATORE-35
DEPARTMENT OF AEROSPACE ENGINEERING



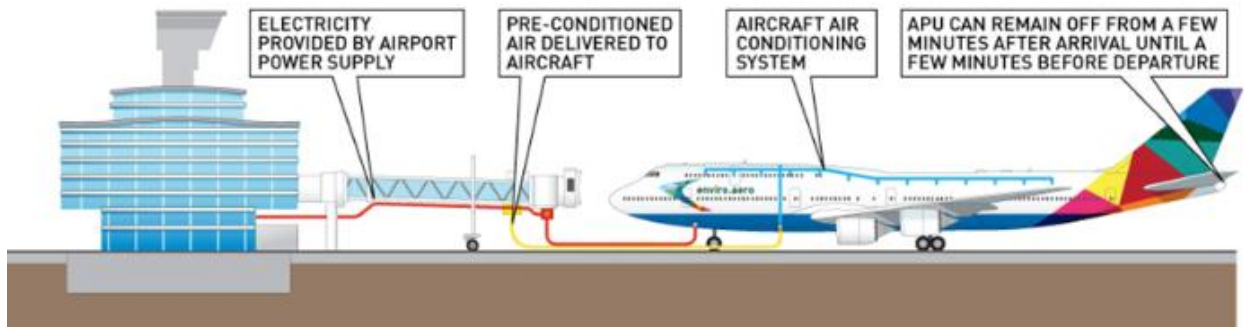
Course: 19ASB303-Aircraft Maintenance Engineering

UNIT I - Aircraft Ground Handling and Support Equipment

UNIT I: U1 LP7: Ground power units in Aircraft Maintenance



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Ground power units (GPUs) are an essential piece of equipment in aircraft maintenance. GPUs provide electrical power to aircraft parked at the gate or on the tarmac, allowing them to run their systems and perform maintenance tasks without the need for the aircraft's own engines to be running.

There are several types of GPUs, including diesel, gasoline, and electric. Diesel GPUs are the most common and provide a reliable source of power for aircraft of all sizes. Gasoline GPUs are less common, but they are sometimes used for smaller aircraft that require less power. Electric GPUs are becoming more prevalent, as they offer several advantages over diesel and gasoline GPUs, including quieter operation, fewer emissions, and reduced maintenance requirements.

GPUs are typically rated by their maximum output power, which is expressed in kilowatts (kW) or horsepower (hp). The amount of power required by an aircraft varies depending on its size, type, and the systems that need to be powered. For example, a large commercial airliner may require a GPU with a maximum output of several hundred kW, while a smaller regional jet may only need a GPU with a maximum output of 90 kW.

During aircraft maintenance, GPUs are used to power the aircraft's systems, including the avionics, air conditioning, and lighting. They are also used to start the aircraft's engines, which is necessary for engine maintenance and testing. GPUs are also used to provide backup power during engine tests, ensuring that critical systems remain powered in the event of an engine failure. Overall, GPUs are an essential piece of equipment in aircraft maintenance. They provide a reliable and safe source of power to aircraft parked on the ground, allowing maintenance crews to perform their tasks efficiently and safely. As technology continues to evolve, it is likely that GPUs will become even more advanced and capable, further enhancing their value in the world of aviation.