COMTROL ®

NASA UNMANNED AERIAL VEHICLE (UAV) DATA TRANSMISSION

NASA, the National Aeronautics and Space Administration, frequently conducts scientific experiments for private and public companies, organizations, and government agencies. One of the toughest challenges that they faced recently was creating an unmanned aerial vehicle (UAV) for scientific research to be used in extremely harsh environments and could send back data to a ground station. They needed to create a scientific research aircraft that could handle the harsh elements of 30,000+ feet altitude, while maintaining the ability to reliably transmit data to a land station more than 4,000 miles away.

NASA created this unmanned scientific research project to monitor ozone depletion, global warming, hurricane patterns, and other various scientific data. They designed their NASA DC-8 UAV using top-of-the-line hardware components, and tested its performance for months before its first launch over Kiruna, Sweden. NASA chose Comtrol's RocketPort PCI cards to fly on-board the NASA DC-8 for this particular research project, due to their excellent performance in climate-induced testing. The RocketPort cards were subjected to extreme temperatures, zero gravity and durability tests, and passed with flying colors.

NASA needed a multiport serial card in their computer aboard the NASA DC-8 to connect multiple scientific peripherals aboard the UAV. These instruments included:

Temperature sensors

Light sensors

Printers

Warning Indicators

To transmit, NASA used satellite communication technology to send the data back to a ground station where it could be gathered, sorted, and analyzed. The data is being used to help determine the depletion of the OZONE layer, to better understand how hurricanes work, and to explore possible effects of global warming.

Warranty Information
Comtrol offers a 30-day satisfaction guarantee and 5-year limited warranty.

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