Modernizing the World's Aerospace Industry

The world relies on air travel. From commercial jetliners to military aircraft and even aerospace; the importance of using the latest technology advancements is paramount to ensuring the safety of manufacturing processes and the clients end-user passengers – human or scientific. Laird Controls remote-control solutions is a key component in today's most advanced processes.

Challenge – Modernizing custom production processes that meet high standards of quality and reliability

Each piece of aeronautics is built to exacting precision ensuring the safety of the passengers it will carry through its useful life. The process in production of these machines needs to also be precise and exacting, while also keeping pace with the modernization of technology.

Legacy equipment that is not upgradable or future-proofed doesn't provide the compatibility with advancing processes that one industry leader required. Flexible solutions require flexible ideas – Laird Controls flies above the rest in both.

Adaptable solutions that provide safety and innovation compatibility

As a means of updating its facility, a leading manufacturer searched for automation solutions that would allow feedback from its PLC drives to its remote-control units. Based on an existing relationship, Laird was chosen for its ability to provide the technology needed in the timeframe required with the industry-leading support competence for such a critical implementation.

Laird Controls' technical capabilities allowed the manufacturer to implement Ethernet IP interface with a RF management process that allows up to six operators to share one frequency using Time Division Multiple Access (TOMA) technology. In addition, Laird Controls' system allows the use of sub-addressing so operators at the facility can safely control any one of 100 Machine Control Units (MCU) in the plant by inserting RFID keys into the Operator Control Unit (OCU).

The implementation is ongoing at the production facility that houses 150 carriers, each with their own MCU, 50 bridges with their own MCU, and 50 OCUs that will be able to safely select any of the MCUs in the plant. Although the plant is very clean and organized, the use of these units demands precision reliability with no operational lags or drop-outs.

Seamless integration with ongoing production

Production at the facility was uninterrupted due to the ability of Laird Controls to design a system to replace the obsolete units while simultaneously providing the added operator feedback and Ethernet IP interface.

The manufacturer has been able to continue to operate their carriers throughout their facility seamlessly with modern equipment, adding the ability to provide information back to the operators through Laird Controls' LCD screen and most importantly; Laird Controls was able to provide a much more secure method of selecting the carriers by using RFID keys. Future work on these installed systems include the addition of security features and predictive analytics system software.

Ability to provide real-time information

The technology used in this instance is available to other applications, providing the ability for two-way information flow between the machine being controlled and the radio.

This Laird Controls capability allows for data collection and dissemination where and when it is needed. Controller alerts, position data, faults, and other real-time information allows for overall better operations and production management.

Visit our website to learn more how Laird Controls solutions can help you streamline your operations. www.lairdtech.com/controls