One of Pascall Aviation's selection of line replacement units

Powered through history

Pascall Electronics cut its teeth supplying in-seat power to some of the forerunners of inflight entertainment. Now the company moves into the future with new ownership and expansion taking place by RICK LUNDSTROM

Somewhere, in a remote corner of the world, a 777 may still be flying with an in-seat inflight entertainment system from GEC Marconi (GMIS). The passenger, fiddling with the controls, is hoping to while away a few hours with some programming.

It would be his or her good fortune if the system - no longer supported by the original suppliers – were still operable. But there is one thing that Phil Brace, who manages IFEC and Airborne Power Solutions for Pascall Electronics, said he can be fairly sure of: the power supplies for the IFE will still be functioning.

The GMIS system, well known in the early generations of inflight entertainment, was one of the applications where the Isle of Wight-based Pascall Electronics earned its first reputation as a provider of reliable power units for media servers and in-seat displays. Though GMIS may have been one of the first, Pascall's power supplies have been driving IFE products from the earliest days, with industry pioneers such as Hughes-Avicom, Sony Transcom and Matsushita to name a few.

Now, as the company grows with new ownership, it finds itself also working with a new field of IFE, cabin and connectivity providers, supplying power to USB charging systems, high bandwidth satellite communications and the juice that drives actuators, moving expensive and complicated aircraft seating into positions required for the comfort and safety of the passenger. It is probably not a company that is known to the passenger, but it has become an important partner for a number of high profile providers of airborne hardware, many of whom are derived from those early system manufacturers.

"Our real strength is in our high levels of service and reliability. It's what Pascall is known and recognized for. It is a sincere and straightforward approach that we take to the market" said Brace. "For us 'reliable airborne power' means that wherever technically possible we design and manufacture a 'fit-and-forget' product."

Brace estimates that over the company's 22-year history in the IFEC market, more than 165,000 of the company's line-replaceable units have been installed on aircraft around the world. The number of Pascall power supplies can vary greatly per aircraft and actual system architecture, from a single unit for a SATCOM application to a power supply for every seat group or row. Pascall power supplies can be found in the electronic equipment bay, under seats, behind sidewalls, above the overhead lockers and in under floor compartments.

Brace considers that the design lifespan of one of the company's power supplies is approximately 10 years, "What you always aim for in this business is that your power solution should more than the adequately address the extended life cycle of the system," he said. He has seen power supplies that have been flying much longer than that coming into the company's repair facility as part of planned maintenance, refurbishment and overhaul programs.

Pascall Electronics is on the verge of seeing increases in its capability in the months to come. Last summer, the company was acquired by Data Device Corporation (DDC) of Bohemia, New York. In addition to the introduction of further lean manufacturing techniques to improve efficiencies, DDC has made a significant investment to transform the Pascall plant. This year, a number of upgrades have increased Pascall's production capacity and expanded the company's vibration and temperature testing capabilities in a new purpose designed building. ▢

Construction goes on at the Pascall plant on the Isle of Wight