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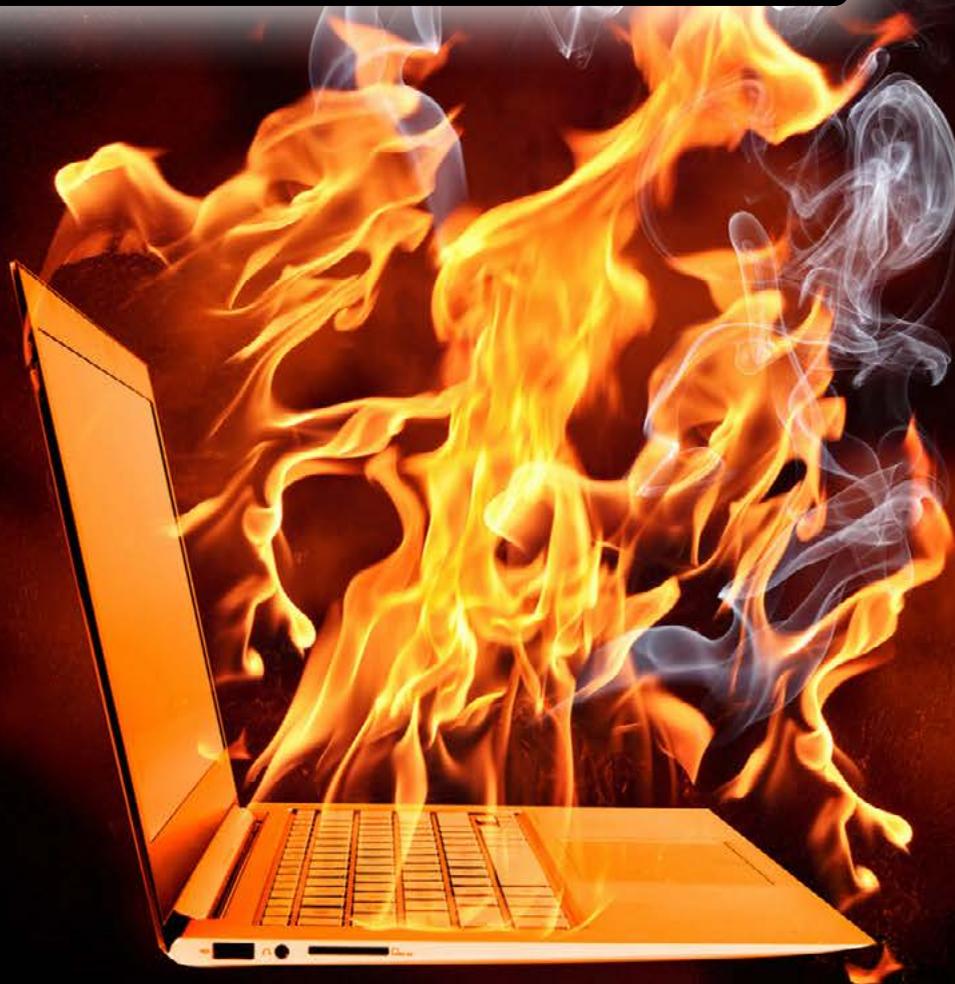
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THE BETTER WAY

Foreign Military Sales: Back to the Future for Sales Opportunities

John Vaughan

CIRCUIT SOLUTIONS LLC.

Against a backdrop of depressed U.S. economic conditions across all industry sectors and a pullback in funding needed to grow our businesses since at least 2009, coupled with the offshoring of many circuit manufacturing opportunities, these are truly challenging times to operate a U.S.-based printed circuit board manufacturing or electronics contract manufacturing operation.

Over the past decade, the military/aerospace sector has transitioned from a period of accelerated DX-rated contract manufacturing in support of our country's multiple war efforts to a post-war period. We are currently in the midst of the attendant phased pull-out of troops, and have warily watched our inconsistent and at times recalcitrant Congress paralyzed by inaction. Those of us doing business in this sector have also navigated government funding shutdowns and tried to optimize our operations in advance of the looming indiscriminate sequestration defense budget cuts. Alas, we have now been presented with a \$1 trillion omnibus spending bill that largely negates those cuts

near term, and in fact provides funding greater than the Pentagon's sequestered budget request. Like me, your initial response may bring to mind the ubiquitous text response, "WTH?" But I would like to explore the current military circuit board business environment in a slightly more mature fashion and pose a key question for us all to consider.

As business executives, how do we operate, navigate and manage a military/aerospace-oriented circuit board shop or CEM operation in such an unstable and unpredictable environment?

The lifeblood of any circuit board or CEM, or any business for that matter, is a predictable and profitable sales backlog. Key to capturing and maintaining mil/aero customer and program opportunities, and thus providing a stable backlog that provides an opportunity to plan and to grow, is fully understanding the mil/aero market and the status of customers and their programs at a very intimate level. Equally important is to understand the DoD funding associated with each of the programs you support.



It may surprise many to learn that the mil/aero prime contractors are actually prospering in the current environment, and in fact, the industry actually performed much better than the broader market in 2013. Several factors are driving their current success. Certainly, cost cutting in advance of sequestration at the operational level has contributed to their profitability, and years of consolidation in the sector has narrowed the competition—and they have very diverse operations—but the chief factor driving the growth is their participation in the foreign military sales (FMS) program.

For those unfamiliar with this, the U.S. DoD FMS program facilitates sales of U.S. arms, defense equipment, defense services and military training to foreign governments. In this scenario, the purchaser does not deal directly with the defense contractor; instead, the Defense Security Cooperation Agency (DSCA) serves as an intermediary and handles procurement, logistics and delivery. Currently, America's allies in Asia are increasing their expenditures due to the China threat and in parallel with higher defense spending by China.

Tracking FMS trend spending is important to PCB and CEMs because all of the electronics contained in the aircraft, the radars, the ordnance, guidance systems and the communications systems being procured through the FMS program are largely legacy systems.

This, of course, means that many of us have already tooled up and previously produced either circuit boards or circuit card assemblies at the sub-component levels for our military prime customers.

There are many examples of FMS spending for us to examine, but if we look solely at the venerable F-16 Fighting Falcon multi-role fighter aircraft, we can begin to understand some tremendous opportunities. Produced by Lockheed Martin, the F-16 is the world's most prolific fighter with more than 2,000 aircraft in service with the USAF, and another 2,500 operational in 25 additional countries.

In addition to the outright aircraft sales, the market for upgrading the electronics suites in the existing fleets of participating FMS countries is in rapid growth mode. Last year, BAE Systems finalized a deal worth over \$1 billion

to upgrade over 130 South Korean F-16 fighters, and the company seeks additional orders in Europe and Asia. Just three weeks ago, the DoD notified Congress that it had approved the sale to Singapore of upgrade packages for 60 F-16s for an order valued at \$2.43 billion. DSCA indicates the upgrades would provide Singapore's F-16 fleet advanced radar systems, new global positioning systems (GPS), newer friend-or-foe identification systems, and an array of newer weapons to include laser-guided bombs.

In an interesting sidebar to the deal, BAE Systems, who has been a key supplier at the sub-assembly level for Lockheed Martin on the F-16 program, seeks to compete against Lockheed Martin for the upgrade deal.

Depending upon the configuration and approved upgrades for each country's version of the F-16, electronic content could include the Lockheed LANTIRN infrared navigation and targeting system, a BAE Systems holographic display, HARM targeting system from Raytheon, or ordnance systems, radar and jamming systems by a plethora of the primes to include ITT, Northrop Grumman, Rockwell Collins and many others.

Do your due diligence research, be informed and check in with your customers in the mil/aero sector that participate on the F-16 program. The chances are very high that there are either current requirements, or requirements planned near-term for circuit boards and assemblies that you are already prepared to support.

I appreciate your feedback. With your input, we can explore areas based upon your interests to help grow our businesses, while strengthening the United States defense industrial base as it pertains to PCB manufacturing and electronics contract manufacturing. **PCB**



John Vaughan is president of Circuit Solutions LLC., based in the Washington, D.C. metro military market, and a provider of integrated supply chain and program management solutions to the military C4ISR, unmanned systems and IED detect and defeat communities. To contact Vaughan, [click here](#).