



J.F. Taylor's Mission Computer Alternative Products (MCA) Dramatically Reduce Deployment Time, Cost While Providing Open Architecture Future Upgrade Paths

Open Standards Platform with Alta Data Technologies 1553 & ARINC COTS Products

Alta Data Technologies, LLC (Alta) is excited to announce that it has been selected as the MIL-STD-1553 supplier for J.F. Taylor's (JFTI) next generation, open systems Mission Computer Alternative (MCA) products. These VPX based systems offer the latest processing capabilities for mission solutions that desire clear upgrade paths that are not tied to a single vendor. The products are designed to be scalable, meet the highest environmental and security requirements, and importantly, provides full Government Rights to interface modules.

Matt Campbell, Vice President and Program Manager of MCA Products for JFTI, explains "Our new MCA product line is the culmination of 35 years of experience in electronic design, systems engineering, software development and production of high-fidelity avionics computer systems, and maintenance kits. This unique experience has shown that defense programs have a strategic need to quickly and cost effectively upgrade mission systems to meet rapidly changing processing and security requirements. One hinderance is working with single prime contractors that naturally want to lock-in their systems designs, and control future upgrades, which slows down implementation and drives up cost. This problem is solved with MCA products."

"The MCA products are based on open hardware and software standards (VITA Hardware Open System Technology - HOST, and Future Airborne Capability Environment - FACE, software) and are built with modular COTS components to the latest technologies. This approach maximizes affordable future growth for tech refreshes. A crucial advantage is the use of non-proprietary interfaces with full Government ownership rights – the Government can control and compete future contractors to manage upgrades while taking advantage of the latest technologies."

The current MCA product was designed and built for the U.S. Navy (USN) T-45 trainer aircraft. The T-45 aircraft is a tandem seat, carrier-capable jet trainer with a digital "glass cockpit" designed for Navy and Marine Corps pilot training. Due to obsolescence and reliability issues, and the need for expanded processing capabilities, the USN initiated a replacement program for the T-45C Mission Display Processor (MDP). In 2017 the JFTI MCA product was selected as the replacement, and JFTI was contracted for the design, test and initial computer builds. Prior to developing the T-45 MCA variant, JFTI also developed an MCA prototype using HOST and FACE™ standards for the MH-60R/S rotary wing aircraft. In February 2022 JFTI was contracted to design, build and test a variant of the MCA computer to meet the constraints of the E-2D aircraft. This MCA variant will be called the E-2D Mission Computer Adjunct Processor (MCAP). Throughout all of these mission computing experiences, JFTI has demonstrated its highly-relevant experience in mission computing hardware, software, documentation, logistics and sustainment, making JFTI the perfect candidate to perform this work.

A critical component of these systems are the avionics interfaces provided by Alta. "We have been quite impressed by Alta's expertise in providing efficient and innovative aviation solutions," says JFTI's Matt Campbell. Alta Data Technologies was founded in 2007 to provide the industry the most advanced and modular MIL-STD-1553 and ARINC COTS products, and their open approach with portable-layered software and independent channel cores provides maximum flexibility for avionics system designs. This approach was worked well as Alta is now one of the largest 1553 and ARINC COTS suppliers with over \$175M in total sales and 60,000+ items shipped in their short history, and their

products are deployed on 1000s of various mission systems. Just recently Alta has been recognized for the third year in a row as a Top 10 Aerospace Solutions Provider by Aerospace & Defense Review.

“This recognition is such a privilege and demonstrates our entire teams’ commitment to provide the very best product and services in the 1553 and ARINC market. Even though we have grown to be one of the largest suppliers in our market, we’ve never forgotten our first customers that believed in our goal to bring fresh, innovative products and services to the industry. By offering the only 3rd generation, packet off-loading protocol engines, along with our leading manufacturing practices, we’ve been able to grow and keep a personal support promise for all customers – backed-up with an industry leading 5-year warranty,” states Harry Wild, VP of Sales and Co-Owner.

Wild continues, “We have some exciting new products in the pipeline that will soon release, including a new, advance cryptographic capability for the Ethernet host interface of our [ENET](#) product line. For the first time in our industry, customers will be able to seamlessly have AES256 level hardware encryption for the host control to 1553 and ARINC networks. This will be ideal for embedded, deployed, and even lab 1553 and ARINC requirements.”

[Alta Data Brochure](#)

[1553 Products](#)

[Arinc 429 Products](#)

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