RTX’s Collins Aerospace Receives First-Ever FAA Approval to Increase Cockpit Processing Power

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Collins’ Display with Mosarc increases cockpit processing power by 75% and decreases certification risk

From RTX

CEDAR RAPIDS, Iowa (Sept. 18, 2024) – Collins Aerospace, an RTX (NYSE: RTX) business, received the first-ever FAA Technical Standard Order (TSO) approval for a fully enabled multi-core processor. The Collins Multifunction Display, powered by Mosarc™, will increase the speed, capacity and flexibility of an aircraft’s flight deck, providing 75% more capability than traditional single core processors.

With this authorization, the Multifunction Display is now the world’s first multi-core processor that’s certified for civil and military aircraft and facilitates simultaneous use of all

processing cores across all Design Assurance Level (DAL) standards. This certification paves the way to utilize the processor for future hardware to enable multi-core processing.

“On a military mission, every second counts and access to information is critical,” said Dave Schreck, vice president and general manager of Military Avionics and Helicopters at Collins Aerospace. “Collins’ display is the only multi-core processor on the market that is certified by the FAA and is being used by the U.S. Army. This translates to being much more efficient in integrating new capabilities while also being able to safely run more applications in parallel than ever before.”

This enhanced performance comes from the system’s ability to process data 12 times faster than a single core processor, consuming 40% less power. It integrates multiple operating systems, which enables rapid third-party integration and reduces vendor lock. Ultimately, this provides platforms the flexibility to integrate evolving mission-systems capabilities in weeks rather than recertifying flight critical applications every time, which can take months or longer.

Collins has been a leading provider of civil-certified, high integrity, safety-critical processors for military aircraft for more than two decades. To date, the display has completed more than 6,000 hours of flight tests and is optimized for use in rotary-wing, fighter, bomber and trainer environments.