

GA-ASI Demonstrated Airborne MUM-T Using MQ-20 Avenger



A recent flight demonstrated autonomous collaboration using command and control of an MQ-20 Avenger from a ruggedized tactical control tablet, integrated with Autonodyne's RCU-1000 Advanced Human Machine Interface. *GENERAL ATOMICS AERONAUTICAL SYSTEMS*

SAN DIEGO – General Atomics Aeronautical Systems (GA-ASI) continues to advance new levels of autonomous control for unmanned aircraft, successfully completing an airborne Manned-Unmanned Teaming (MUM-T) demonstration on Aug. 25, 2021, pairing a company-owned MQ-20 Avenger with a modified King Air 200 as a surrogate for fourth- and fifth-generation tactical fighters.

The flight demonstrated autonomous collaboration using command and control (C2) of the Avenger from a ruggedized tactical control tablet, integrated with Autonodyne's RCU-1000 Advanced Human Machine Interface, to provide real-time situational awareness combined with complex behavior tasking. The airborne node utilized a GA-ASI-modified King Air 200, which allowed for rapid integration and test of the C2 hardware.

“GA-ASI continues to innovate by integrating state-of-the-art technology, providing combatant commanders with tested solutions for persistent, affordable air sensing with challenging target sets,” said Mike Atwood, senior director of advanced concepts at GA-ASI. “This flight builds on the previous long-wave IR [infrared] passive autonomous testing and continues to validate that persistent Group 5 UAS aircraft can perform complex Air Moving Target Indication.”

The Avenger flight originated from GA-ASI's Desert Horizon facility in the Mojave Desert and the King Air took off from Montgomery Airport in San Diego. The demo lasted for

approximately two hours. The successful test proves the ability for GA-ASI MUM-T to command airborne assets while autonomously executing behaviors and missions that provide increased awareness and effectiveness to the warfighter.

“Autonodyne was thrilled to work with GA-ASI to leverage our previous work in MUM-T C2 and apply it to such an impressive air vehicle,” said Autonodyne CEO Steve Jacobson. “Tactical control combined with powerful autonomy capabilities is critical to providing our warfighters the tools they need now.”