uAvionix RT-2087/ZPX Miniaturized Transponder Selected for Tactical Resupply Unmanned Aircraft Systems

Release from uAvionix

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Bigfork, MT 24 May 2023 – uAvionix Corporation defense customer, SURVICE Engineering of Belcamp, MD has been awarded a production contract from the Navy and Marine Corps Small Tactical Aircraft Systems Program Office. The production efforts will successfully equip U.S. warfighters using

Tactical Resupply Unmanned Aircraft Systems (TRUAS) with innovative multirotor drones that augment logistical operations at the forward edge of the battlefield. uAvionix's AIMS-certified RT-2087/ZPX Combat ID and Air Traffic Control surveillance system has been selected for inclusion in the production effort to satisfy the TRUAS Identification Friend or Foe (IFF) Transponder and ADS-B requirements for UAS operating both in the battlefield and in civilian airspace.

"*We congratulate SURVICE Engineering on this important award. The TRUAS program will provide an important function to the U.S. Navy and Marine Corps and demonstrates how innovative small UAS can support the warfighter in multiple roles. The RT-2087/ZPX delivers uncompromised performance in a convenient, rugged, miniaturized form factor that meets the needs of tactical UAS operations,*" notes Christian Ramsey of uAvionix Corporation. "*Our continued collaboration with SURVICE Engineering highlights the importance of proven and dependable low Size, Weight, and Power (SWaP) avionics and their ability to deliver core functionality while not impacting UAS payload and range performance.*"

Small unmanned aircraft systems (sUAS) require low SWaP avionics to save space and weight for operational capabilities such as extended range or heavier packages. Military use of sUAS adds additional requirements to ensure that the UAS itself can be properly identified for airspace deconfliction and battlefield situational awareness. In particular, these Combat UAS must be equipped with transponders that allow armed forces to distinguish friendly aircraft from enemy aircraft. The capability, commonly known as Identification Friend or Foe (IFF), relies on transmissions between an interrogating device and the aircraft where the messages are encrypted to prevent interception by enemy forces. Traditionally the IFF transponders were large and heavy; suitable only for larger aircraft. However, with the advent and AIMS certification of

the RT-2087/ZPX in March 2021, UAS used for tactical military operations can now be equipped with a fully functional IFF micro transponder and associated crypto unit measuring in grams instead of pounds.

Relying on its best-in-class SWaP, the RT-2087/ZPX selected for use in SURVICE's contract ably meets the TRUAS requirements and supports a timely delivery of improved tactical functionality to the warfighter. Capable of carrying more than 100 pounds over distances ranging from 6 to 15 km, the resulting TRUAS will support the delivery of critical supplies to forward-deployed units.

The uAvionix line of ZPX transponder products, such as the RT-2087/ZPX, enable secure Mode 5 platform identification for UAS. Each uAvionix ZPX transponder has a built-in crypto emulator to support development and testing without the security burdens imposed by using actual cryptos, and ZPX transponders possess Mode S/1090ES ADS-B functionality to comply with civil requirements and simplify equipage for military aircraft having to transit civil airspace.