FOR IMMEDIATE RELEASE

Adaptive Aerospace Group, Inc. to develop high-integrity flight management system for Unmanned Aerial Vehicles

Hampton, VA – July 5, 2017

Hampton, Virginia based Adaptive Aerospace Group, Inc. (AAG) today announced receipt of a Small Business Innovative Research (SBIR) Phase I grant from NASA to design a high-integrity flight management system for a small Unmanned Aerial Vehicle (UAV) and a multi-UAV ground control station for safe operation of multiple fixed-wing UAVs, including Beyond Visual Line of Sight operations. The flight management system will include autonomous traffic and obstacle avoidance, geospatial containment, and flight envelope protection. AAG is partnering with the National Institute of Aerospace to demonstrate the application of formal methods in analyzing the design. The winning proposal is titled "High-Integrity Safe Autonomy Flexible Innovation Testbed (SAFIT^{TM})." (SAFIT™ is pronounced Safe It.) It was one of two aviation safety related SBIR grants awarded to AAG in June.

There are currently no commercially available high-integrity small UAV flight management systems that provide autonomous traffic and obstacle avoidance, geospatial containment, and flight envelope protection, and there is tremendous commercial potential for this product. The FAA is still in the process of developing a certification standard for a UAV maneuvering autonomously in the National Airspace System. AAG's vision is to work with the FAA Small Airplane Directorate to certify SAFIT^{TM} for use with a wide range of UAV platforms, including certification for a single operator managing multiple UAVs that are autonomously maneuvering Beyond Visual Line of Sight. This research builds on previous work funded by both AAG and NASA to develop a UAV testbed to support safe flight testing of NASA's autonomy research applications.

Successful development and certification of SAFIT^{TM} is a key enabler for safe operation of UAVs for a wide range of missions, including agricultural applications, such as crop dusting and inspection; civil government applications, such as fire-fighting and police surveillance; and commercial applications, such as film-making, site inspection, and package delivery.

Adaptive Aerospace Group, Inc. was founded in 2003 and performs research and development for aviation and space flight vehicle technologies including on-board electronics (avionics).

Website: https://www.adaptiveaero.com