Unmanned Aerial System (UAS) operators in the critical infrastructure, agriculture, public safety and other industries are challenged to achieve UAS airspace situational awareness and Sense and Avoid (SAA) capabilities in a scalable and cost effective manner.

Harris developed the first National Airspace System (NAS)-wide integrated surveillance capabilities designed specifically for UAS operations. The Harris networked surveillance systems combine the vast Harris network of NextGen surveillance data with the ability to integrate locally deployed surveillance assets – creating a surveillance, visualization, and alerting system for the safe operation of unmanned aircraft within the NAS.
UAS SOLUTIONS

INTEGRATING UAS INTO THE NAS

RangeVue™
Symphony® RangeVue™ is the first airspace situational awareness visualization tool designed specifically for UAS operations. Part of the Symphony suite of applications, Symphony RangeVue puts real-time NextGen surveillance data, obstacle data, flexible background maps and weather information in the hands of the people directly in the field or at test range operation centers for tracking UAS missions.

NextGen Data
Nationwide ADS-B ground station deployment serves as the cornerstone of the FAA’s NextGen satellite-based surveillance initiative to fundamentally improve the quality, accuracy and reliability of flight tracking data throughout the entire NAS. The NextGen data of FAA sources is augmented with local surveillance sensors to provide hyperlocal surveillance coverage for safe UAS operations.

ADS-B Xtend™
ADS-B Xtend dual-band receiver and relay augment the existing NextGen Data commercial offering from Harris, to meet the need for low altitude airspace surveillance coverage. ADS-B Xtend is a self-contained antenna, processing, and communications system with low size, weight, and power for easy installation or remote portable deployment.

Custom Surveillance Systems Integration
Harris’ systems engineering expertise empowers the integration of myriad surveillance sensors and other capabilities to meet customer needs.

FAA SURVEILLANCE SOLUTION PROVIDER
Harris designed, built, and operates the world’s largest Air Traffic Control (ATC) surveillance data network in the world in the Federal Aviation Administration’s (FAA) Automatic Dependent Surveillance-Broadcast (ADS-B) network. This critical level network has over 650 ADS-B ground stations and links over 450 additional FAA surveillance radars and sensors. The Harris NextGen data is a synthesis of NAS-wide, real-time FAA system-derived aircraft surveillance data. These sources include ADS-B data derived directly from the U.S. national ADS-B network being deployed by Harris; FAA en route and terminal secondary surveillance data; airport surface surveillance data from the FAA Airport Surface Detection Equipment-X Band (ASDE-X); Wide Area Multilateration (WAM) from FAA deployed WAM systems and flight plan data from the FAA host system.

INTEGRATED SURVEILLANCE
The future of aviation in low altitude Beyond Visual Line of Sight (BVLOS) UAS operations demands implementation of regional and large scale aircraft surveillance solutions that integrate a range of surveillance technologies, such as primary radar, ADS-B, and LTE for UAS SAA solutions. Harris’ deep FAA surveillance network expertise infuses the integration services, display systems and surveillance sensors for BVLOS infrastructure to ensure safe UAS integration into the NAS.

From large scale systems to smaller scale regional systems, Harris integrates multiple surveillance technologies into a surveillance network that is customizable to meet UAS customer needs.

For more information email us at UAS@harris.com

About Harris Corporation
Harris Corporation is a leading technology innovator that creates mission-critical solutions that connect, inform and protect the world. The company’s advanced technology provides information and insight to customers operating in demanding environments from ocean to orbit and everywhere in between. Harris has approximately $8 billion in annualized revenue and supports customers in 125 countries through four customer-focused business segments: Communication Systems, Space and Intelligence Systems, Electronic Systems, and Critical Networks.