

JED News

AVANTIX DEBUTS FLASHHAWK AIRBORNE COMINT/CESM SUITE

French EW house Avantix has commenced initial production of its FlashHawk airborne communications intelligence/communications electronic support measures (COMINT/CESM) suite in anticipation of launch orders.

Designed for integration on a range of air platforms – including fixed-wing ISR aircraft, helicopters, unmanned aerial vehicles (UAVs) and balloons – FlashHawk has been designed as a low size, weight and power (SWaP) CISM sensor able to provide instantaneous detection, characterization, localization and identification of short-burst emitters in the V/UHF (30-3,000 MHz) communications bands. The system uses a patented 10-element compact antenna design to achieve precise 3D geo-location (typically 1° deg RMS) sufficient for immediate cueing of an electro-optical/infra-red sensor for real-time visualization and video tracking.

FlashHawk can additionally perform a COMINT function to classify and decode received signals. Up to four dedicated “listening” channels can be set in a dedicated 40-MHz instantaneous bandwidth receiving chain.

Low SWaP characteristics – the sensor processor and antenna unit weigh a combined 40 kg – mean FlashHawk is suitable for installation on a wide range of air platforms. Flight test campaigns have been completed on a number of types, including a piloted aircraft functioning as a UAV “surrogate.” In the latter case, the FlashHawk equipment was operated from the ground using a two-way datalink.

In October last year, FlashHawk was subjected to an evaluation by the Direction générale de l’armement (DGA) using a Reims-Cessna F406 Caravan II aircraft operated by aerial services contractor AVdef. Avantix told *JED* that the DGA flight test

campaign had proved very successful, with a number of French Army representatives exposed to the system. – *R. Scott*

SAAB TAKES WRAPS OFF SIRIUS COMPACT

Saab has launched a new small form-factor battlefield electronic warfare (EW) system known as Sirius Compact. Designed to provide surveillance and geolocation of emitters at the tactical level, Sirius Compact blends signal processing and tools already employed in the company's Sirius passive EW product family with a new compact 2-18 GHz sensor suitable for man-portable operations, mast/tripod mounting, vehicle installation, or carriage on a small unmanned air vehicle (UAV). The product development is the result of a collaboration between the Saab Technology Centre in Tampere, Finland, and the company's Järfälla site in Sweden.

Saab's Sirius product portfolio has hitherto been focused on larger, semi-mobile or fixed sensor systems. However, the company has latterly identified requirements for a more compact and lightweight passive EW capability, based on modern digital channelized receiver technology, better suited to tactical users requiring detection, classification, and direction finding (2° RMS) of radar and datalink emissions.

The company sees low size, weight and power as key discriminators for Sirius Compact. The sensor head, weighing less than 3 kg, is easily carried and deployable within minutes. It additionally includes an integrated navigation/positioning system: a GNSS receiver provides accurate location, while an inertial measurement unit allows for sensor orientation.

While suitable for standalone use, Saab is particularly emphasizing the use of Sirius Compact within a distributed surveillance network using multiple passive sensor nodes exchanging information via datalink. For example, a UAV-mounted sensor could extend the surveillance horizon for

ground forces. Alternatively, triangulation using a swarm of UAVs could provide fine geolocation.

Another feature of Sirius Compact is a high level of automation to ease the training burden for non-EW specialists. Saab suggests that the system could be pre-configured by an experienced EW specialist, but then operated in the field by a less well-trained soldier.

Trials of Sirius Compact are already underway using pre-series engineering development models. Field testing is planned to commence with potential customers later this year, with delivery of series production units to start in 2023. – *R. Scott*

IN BRIEF

The US Navy is planning to evaluate **Saab's** Enhanced Survivability Technology (ESTL) self-protection pod on F-35A aircraft, according to a May 16 Sources Sought Solicitation (N6893622R0027) from the Naval Air Warfare Center – Weapons Division (China Lake, CA). The solicitation was issued to determine if other sources could provide the same capability. The proposed contract is for “two airborne dispensing pods, airworthy to be cleared on an F-35A threshold, F-35A/B/C objective. These pods must use electro-mechanical countermeasure expendable dispensing system rather than the standard impulse cartridge dispenser. This electro-mechanical countermeasure expendable dispensing system, demonstrated in an airborne dispensing pod, shall be capable of dispensing at least 160 packets of pyrophoric material and packets of chaff.” On the F-35, the pods will utilize the LAU-151 missile rail (currently used for AIM-9X). In addition, the pods should not exceed 119 inches nor weigh more than 300 lb. (the length and weight of the AIM-9X).

The Air Force Research Laboratory's Sensors Directorate, Multispectral Sensing and Detection Division (AFRL/RYM) has

awarded an \$11.2 million contract to **Rincon Research Corp.** (Tucson, AZ) to develop ESM technologies for the Radio Frequency Awareness with Geolocation and Edge Processing (RAGE) program. According to the contract announcement, the company will develop “new radio frequency (RF) exploitation capabilities with a particular interest in researching unmanned aerial system (UAS) borne RF sensing capabilities; advanced airborne platform geolocation, testing and demonstrating the efficacy of low size, weight, and power (SWaP), low-cost RF solutions; advanced tracking algorithms integration into Department of Defense (DoD) intelligence, surveillance, and reconnaissance (ISR); and demonstrate that these algorithms meet find, fix, and track requirements.” The RAGE contract was awarded as part of the larger Multi-Spectral Sensing Technologies R&D (MuSTeR) BAA. AFRL released \$2 million in FY2021 and FY2022 funding at the time of award.

The Naval Air Warfare Center – Weapons Division (China Lake, CA) announced plans to award a sole-source contract to **Collins Aerospace** (Cedar Rapids, IA) to supply approximately 75 Quint Networking Technology (QNT) dual-power amplifiers that integrate with the QNT-200D software defined radio to provide dual antenna functionality for the AN/ALQ-231(V) Intrepid Tiger Electronic Attack System.

Chesapeake Technology International (McLean, VA) has appointed Dr. Jay Moorman as its new Chief Technology Officer (CTO). Moorman joins CTI after serving as Senior Vice President and Operating Group Lead at CACI for the past three years. Prior to CACI, he worked at Bell Labs, Alcatel-Lucent, and LGS Innovations.

Headquarters Allied Air Command (HQ AIRCOM) (Ramstein AFB, Germany) intends to issue an Invitation for International Bidding (IFIB) for the provision of electronic warfare services for NATO training and exercises at multiple locations. The contract will cover one base year (CY2023) and five option years. The total value of all options are

exercised is estimated at €8 million. HQ AIRCOM plans to issue the IFIB on June 21 and proposals must be submitted by September 8. The solicitation reference is ACO-RAM-22-11.