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Schiebel demos new payloads on S-100 VTOL UAV for Australian Army



Austrian vertical take-off and landing unmanned aerial vehicle (VTOL UAV) developer Schiebel has successfully demonstrated two new payloads aboard its S-100 Camcopter platform to the Australian Army as part of a two-week technology survey for the Australian Department of Defence's (DoD's) Project Land 129 Phase 3 Tactical Unmanned Aerial System (TUAS) programme.

Land 129 Phase 3 is aimed at acquiring a replacement for the Textron Systems Shadow 200 tactical UAV currently operated by the 20th Surveillance and Target Acquisition Regiment at Gallipoli Barracks in Brisbane. The project seeks a new unmanned intelligence, surveillance, and reconnaissance (ISR) platform that will not just replace the Shadow 200 - which was initially acquired to support Australian Defence Force (ADF) operations in Afghanistan - but also add another unmanned vehicle battery to the regiment's current strength of two batteries.

Schiebel announced on 13 December that it had integrated and tested Elta Systems' ELK-7065 high frequency (HF) communications intelligence (COMINT) and direction-finding system and Overwatch Imaging's TK-5 Firewatch smart tactical mapping payload aboard an S-100 Camcopter under lease by the Australian Army.

The ELK-7065 - which was trialled during the first week - is designed to intercept and determine the precise location of hostile HF transmitters using cues such as signal power, geo-location, modulation, and polarisation. According to Elta Systems, the ELK-7065 can also identify and classify these signals, enabling an operator to potentially generate an electronic order of battle (EOB) of a hostile force.

Overwatch Imaging's TK-5 Firewatch system was tested during the second week. Weighing between 1-2 kg depending on the configuration, the payload is equipped with a 5-megapixel colour sensor, a near infrared (NIR) sensor, and a temperature-calibrated thermal longwave infrared (LWIR) sensor that operate simultaneously to generate a wide area map at a rate of up to 20,000 hectares per hour.