

Design and construction of an OSI airborne techniques simulator

To support the development of airborne OSI equipment configurations in a realistic setting prior to actual testing on board an aircraft, an airborne techniques simulator has been designed and constructed. As well as providing a means to support the development of OSI airborne techniques, the simulator offers significant potential to train OSI surrogate inspectors on the application of visual observation, multi-spectral, gamma and magnetic surveys on the ground before embarking on in-flight training. The simulator has the look and feel of an actual helicopter, with appropriate seating and harnesses as well as cabin hard points. The simulator is built on an Mi-2 helicopter airframe but has been heavily customised to simulate different aspects of various airframes. For example, a hatch has been created inside the cabin to simulate openings in the Sikorsky UH 60 Black Hawk and Eurocopter AS332 Super Puma. Similarly, external hard points have been added to allow the mounting of utility pods designed for the Bell 212 and Eurocopter AS350, which are typically used to house multi-spectral sensors. The flexible nature of the simulator allows different OSI scenarios to be tested and trained, which can incorporate interactions with pilots and OSI representatives on-board the airframe.

Primary author: SZALAY, Kornél (Institute of Agricultural Engineering (NAIK))

Presenter: SZALAY, Kornél (Institute of Agricultural Engineering (NAIK))

Track Classification: Theme 3. Verification Technologies and Technique Application