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Image/Video Processing for Wide Area Persistence Sensors

Applications for wide-area persistent sensors on air platforms have grown in recent years for defence surveillance. This call is to seek solutions on two image/video processing challenges:

The first is on developing human-like intelligence to correlate visual events from airborne wide area persistent EO and/or IR sensors. The work could focus on event detections that are of 'operational significance' such as locating military vehicle convoy, border intrusion and backtracking of such activities across time and space. The solution should work robustly in an urban environment where problems such as building occlusions are likely.

The second is to design processing concepts that enables real-time on-board analysis of high volume of image/video imager using low SWaP (size, weight and power) hardware architectures.