

ABSTRACT

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SYSTEM AND METHOD FOR INTEGRATION OF DATA RECEIVED FROM GMTI RADARS AND ELECTRO OPTICAL SENSORS

A fusion system and method for constructing tracks of a ground target from
10 radar and optical detections are described. The system includes a radar channel and an
optical channel. The radar channel includes a Ground Moving Target Indicator (GMTI)
radars providing GMTI detections in the form of GMTI plots, a GMTI tracker
configured for constructing GMTI tracks of the ground target from the GMTI plots, and
a Smooth Radar Plots generator configured for sequentially in time producing smooth
15 radar plots in the form of locations of ground target on the GMTI tracks and
corresponding location errors. The optical channel includes electro optical (EO) sensors
sequentially in time providing EO detections in the form of coordinates of the ground
target, and a combiner tracker configured for combining data streams of the radar
channel with data streams of the optical channel, and producing fused tracks of the
20 ground target.

Fig. 1