Fig. 7. Detection snapshots between 2 sensor nodes separated by d=61m

Fig. 8. Detection snapshots between 2 sensor nodes separated by d=121m

A. Preliminary Simulation Results with 100 Randomly Deployed Sensors

In this section we present some preliminary results for the case where we have 100 randomly deployed sensor nodes to cover a $1000 \times 1000$ area. Other than that we use the simulation parameters of the previous section. Furthermore, we assume that the fusion center uses a counting rule, thus it decides detection if at least $K$ sensors/pairs become alarmed. Fig. 10 displays the ROC curves for the different detectors. $s1 - ED$ refers

Fig. 9. Detection snapshots between 2 sensor nodes separated by d=181m