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Rachid Ait Maalem Lahcen^{*}, 4000 Central Florida Blvd, MSB 221, Orlando, FL 32816, and Ram Mohapatra (ram.mohapatra@ucf.edu), 4000 Central Florida Blvd, MSB 412, Orlando, FL 3216. UAVs Mesh Network Survivability Against Cyber Attacks: A Simulation Study. Preliminary report.

In the absence of manual control and unmanned aerial vehicles (UAVs) dependence on communication links to do their duties, the attacker can hack the UAVs sensitive sensory data and feed them malicious information or jam their communication links. Consequently, a UAV node can fail and/or cause other nodes to fail due to inter-connectivity. Barabsi gave the typical example of 2003 blackout that is a cascading failure. The blackout illustrated the vulnerability due to inter-connectivity. Hence, there are several challenges that need to be resolved to improve survivability of multi-UAV flying ad hoc networks (FANET) including the structure of the network, the connectivity, and the management algorithm. In this presentation, we explore the cascading effect over different types of network structures to measure survivability based on loss of nodes and links. (Received September 04, 2018)