

Abstract: In the past decade, unmanned aerial vehicles (UAV) technology has advanced drastically. New implementation roles of UAVs are under development. The field of search and rescue, specifically wilderness search and rescue (WiSAR) is another growing area that would benefit by utilization of small-unmanned aerial vehicles (sUAVs). The ease of deployment and the invaluable images captured by technologically advanced cameras make sUAV implementation in WiSAR essential. As UAVs become regularly included in WiSAR operations, UAV operators must understand functions, contextual roles and operating frameworks to safely integrate UAS into operations by search and rescue teams. Factors of consideration include: Number of UAVs deployed; UAV employment sequence in the search procedures; UAV flight paths and search patterns; and search area scan techniques. Additionally, the number of UAV operators is of notable importance, along with functions performed by each operator in the search operation. Goodrich et al. (2008) suggested employment of at least two people for each deployed UAV (one UAV operator and one sensory operator) to ensure effective imagery analysis. Standardization of implemented WiSAR applications is an emergent issue for exploration.