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Realization of the expected proliferation of Unmanned Aircraft System (UAS) operations in the National Airspace System (NAS) depends on the development and validation of performance standards for UAS Detect and Avoid (DAA) Systems. The RTCA Special Committee 228 is charged with leading the development of draft Minimum Operational Performance Standards (MOPS) for UAS DAA Systems. NASA, as a participating member of RTCA SC-228 is committed to supporting the development and validation of draft requirements for DAA alerting system performance. A recent study conducted using NASA's ACES (Airspace Concept Evaluation System) simulation capability begins to address questions surrounding the development of draft MOPS for DAA alerting systems. ACES simulations were conducted to study the performance of alerting systems proposed by the SC-228 DAA Alerting sub-group. Analysis included but was not limited to: 1) correct alert % (and timeliness), 2) false alert % (and severity and duration), 3) missed alert %, and 4) probability of an alert type at the time of loss of well clear. The performance of DAA alerting systems when using intent vs. dead-reckoning for UAS ownship trajectories was also compared. The results will be used by SC-228 to inform decisions about the surveillance standards of UAS DAA systems and future requirements development and validation efforts