# Ranking of Critical Information for Student Air Traffic Management

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Abstract

In light of a projected increase in air traffic density in the next decade, Next Generation (NextGen) Air Traffic Management (ATM) System automation tools have been developed to assist Air Traffic Controllers (ATCos) with the anticipated workload. Several studies examining the situation awareness (SA) and workload of ATCos in air traffic management scenarios have demonstrated a need to maintain ATCo involvement in the face of automation. As to what kind of involvement exactly is still not completely understood with respects to optimizing SA and workload. ATCo students of varying proficiencies were placed into air traffic management simulations and were then surveyed in order to better understand their preferences when it comes to ATM tool design. Novice ATCo students found the distance between arriving and departing aircraft to be of more importance than more proficient ATCo students, while ATCos students of all experience levels reported altitude to be one of the most critical pieces of information. With this knowledge, we hope to be able to design NextGen and training tools to better cater to ATCos and ATCo students with respect to experience and general preferences.