

## Public Perceptions of Privacy Toward the Usage of Unmanned Aerial Systems: A Valid and Reliable Instrument

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## Consumer Perceptions of Privacy Toward the Usage of Unmanned Aerial Systems: A Valid and Reliable Instrument

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Unmanned Aerial Systems (UAS) have grown in popularity within the last decade. UAS roles include missions such as search and rescue, television/movie filming, security, agricultural operations, law enforcement, firefighting, package delivery, and much more. As increases in usage occurs, there are numerous concerns over the integration of UAS into the national airspace system (NAS). Issues such as control, authority, aircraft separation, and regulations have all been identified. Additionally, concerns have been expressed over privacy rights of consumers while UAS are in operation. As government and industry work to determine the proper incorporation of UAS into the NAS, there should be a measure of consumer privacy that can be used for future research, however, there is currently no such instrument available. The purpose of this study was to produce a valid and reliable instrument that measures consumer's privacy concerns as it relates to UAS operations. The instrument was developed through the use of a multi-stage process, which included consumers in each step. The resulting scale is measured on a five-point Likert scale from strongly disagree to strongly agree and has been shown to be valid, reliable, and discriminatory. Future research can utilize this instrument in studies to measure consumer privacy concerns as it relates to the usage of UAS.