

The Influence of Unmanned Aerial Systems on Driving Performance Dataset

Dataset available at: <https://doi.org/10.7910/DVN/AYAOCF>

(This dataset supports report **The Influence of Unmanned Aerial Systems on Driving Performance**, http://safersim.nads-sc.uiowa.edu/final_reports/UM%201%20Y3%20Final%20Report.pdf)

This U.S. Department of Transportation-funded dataset is preserved by the SAFER-SIM University Transportation Center in the Harvard Dataverse Repository (<https://dataverse.harvard.edu/>), and is available at <https://doi.org/10.7910/DVN/AYAOCF>

The related final report **The Influence of Unmanned Aerial Systems on Driving Performance**, is available from the National Transportation Library's Digital Repository at <https://rosap.ntl.bts.gov/view/dot/53433>

Metadata from the Harvard Dataverse Repository record:

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Contact: Unmanned aerial systems (UAS), or drones, have become increasingly utilized for a myriad of applications in the vicinity of the roadway and can offer a low-cost alternative to many labor intensive data collection techniques, including infrastructure inspection, roadway marking data collection, and more. To collect much of this data with a desired degree of accuracy, UAS must be flown near moving vehicles, pedestrians, and/or bicyclists. However, UAS, and their pilot/crew, have the potential to be a distraction to drivers. A study by Hurwitz et al. suggests that UAS operations are more distracting to drivers as the UAS traverses closer to the roadway laterally. Through a combined literature review and full-immersion driver simulator study, this study furthered the current state of the literature and investigated the potential for UAS to be flown near roadways in the future as well as potential safety implications of those circumstances. Specifically, driver performance due to drone height and the presence of drone operators was evaluated. The literature synthesis portion of this research revealed that UAS flights in the vicinity of roadways will continue to increase. The results of the driving simulation study showed that participants were more visually distracted in situations where the pilot and drone were both present compared to the drone only. Further, in 11% of all analyzed situations, participants were critically visually distracted (continuous glance of two seconds or more) by the

drone or pilots. Ultimately, this research provides recommendations to policymakers for creating regulations on the use of drones in the vicinity of roadways. (2020-05-01) Subject: Engineering
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Dataset description:

This dataset contains 1 zip file,

The_Influence_of_Unmanned_Aerial_Systems_on_Driving_Performance.zip, containing 223 txt file format further described below

- 223 files in .txt: The .txt file type is a common text file, which can be opened with a basic text editor. The most common software used to open .txt files are Microsoft Windows Notepad, Sublime Text, Atom, and TextEdit (for more information on .txt files and software, please visit <https://www.file-extensions.org/txt-file-extension>).

National Transportation Library (NTL) Curation Note:

As this dataset is preserved in a repository outside U.S. DOT control, as allowed by the U.S. DOT's Public Access Plan (<https://ntl.bts.gov/public-access>) Section 7.4.2 Data, the NTL staff has performed *NO* additional curation actions on this dataset. NTL staff last accessed this dataset at <https://doi.org/10.7910/DVN/AYAOCF> on 2020-10-25. If, in the future, you have trouble accessing this dataset at the host repository, please email NTLDataCurator@dot.gov describing your problem. NTL staff will do its best to assist you at that time.