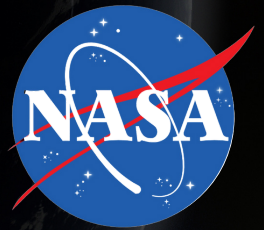




AIRSAGE

Insights for a moving world

DECEMBER 2021



DRONE PRE-FLIGHT RISK ESTIMATION

**Case study on
AirSage Activity Density**



NASA

AND ITS TECHNOLOGY

Drones are on the approach for all of us, which would be a great experience for many. Unmanned, remote-controlled, or planned flying is not new and it is getting more widespread.

New autonomous flying machines have the ability to revolutionize how we move our goods, track infrastructure, and ensure safety of public places. But first, we need to track and ensure secure and efficient way of new flying objects to operate.

Many commercial firms collaborated with NASA and the Federal Aviation Administration (FAA) on the Nasa Drone Safety Project. The project also created a set of standards and regulations for third-party developers, ensuring that the cutting-edge new tools developed would function in tandem with the FAA's current air traffic management system.

One of the partner's for Nasa's Drone Project from North America in Atlanta, Georgia is AirSage Inc. who revolutionizes methodologies and products, that comprise of industry-leading data and easily accessible analytics tools.



NASA

NASA UTILIZES AIRSAGE'S POPULATION DENSITY DATA FOR DRONE PRE-FLIGHT RISK ESTIMATION

Since 2018, AirSage has been supporting NASA's Ground Risk Assessment Service Provider (GRASP) development effort, which is part of Unmanned Aircraft System (UAS) and Urban Air Mobility (UAM) integration.

The purpose of this study was to determine the varying risks associated with unmanned drone flight patterns in and around densely populated urban areas. An important factor within the research was obtaining high-resolution, dynamic (or hourly) population density data to estimate pre-flight non-participant casualty risk.

AirSage stepped in to help with this aspect of the study by providing data gathered from their Population Density tool for the Reno, NV, Corpus Christi, TX, San Francisco, CA, and Dallas-Fort Worth, TX areas

About AirSage

Population Density

THE NEW STANDARD IN POPULATION MOVEMENT DATA

AirSage's Population Density tool helps to identify where mobile devices are located throughout the day for any "hot spot" location — such as the major metropolitan areas evaluated in NASA's study — or for special events on a defined geographical space.

This highly developed tool allows for a better understanding of how people congregate and move throughout an area.

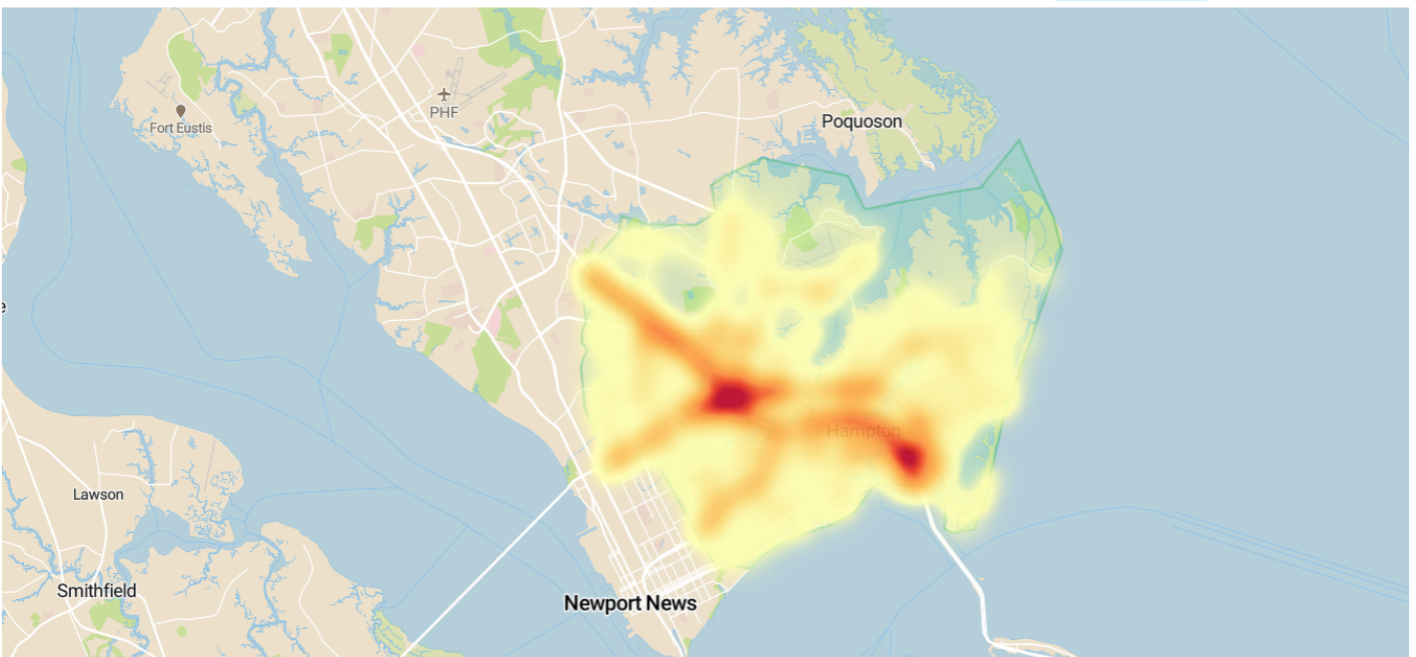
These population densities can influence development patterns and recognize event-based migration patterns (i.e., gamedays, natural disasters, etc.) over time intervals (i.e., hourly). It can help with emergency management operations, event planning, and many other useful applications for instance:

Activity Density

2PM July 01, 2021

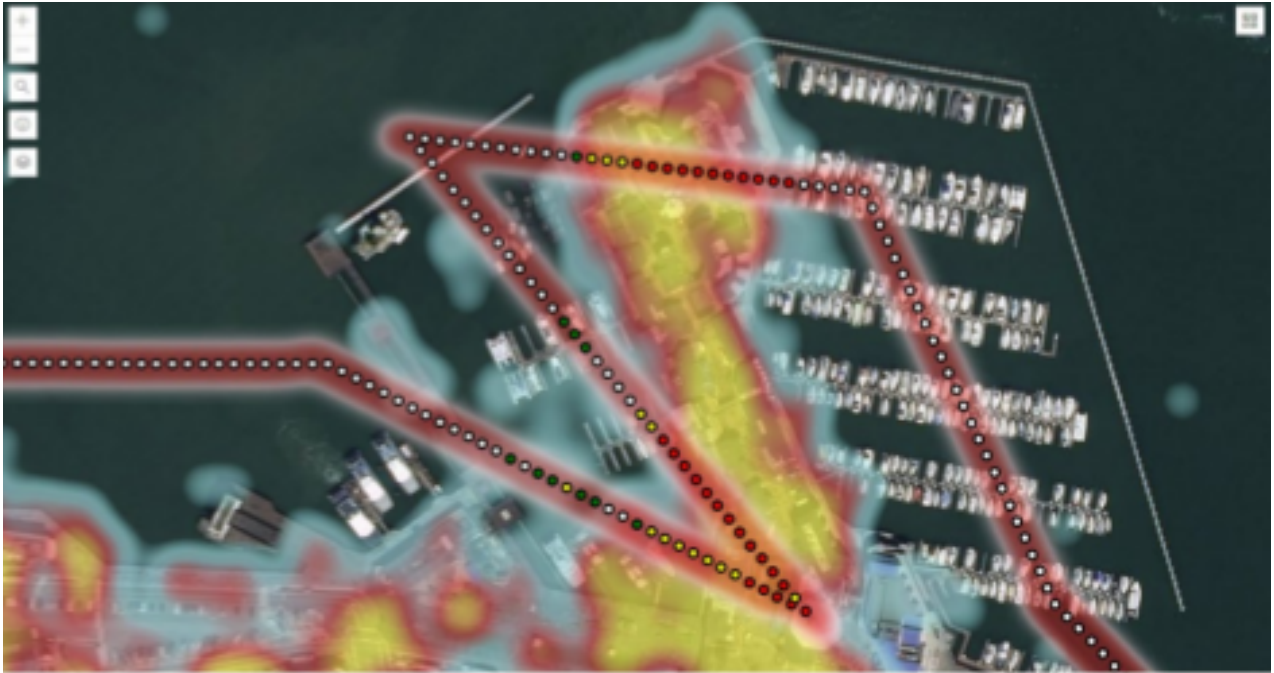
 HEATMAP

 SCREEN GRID

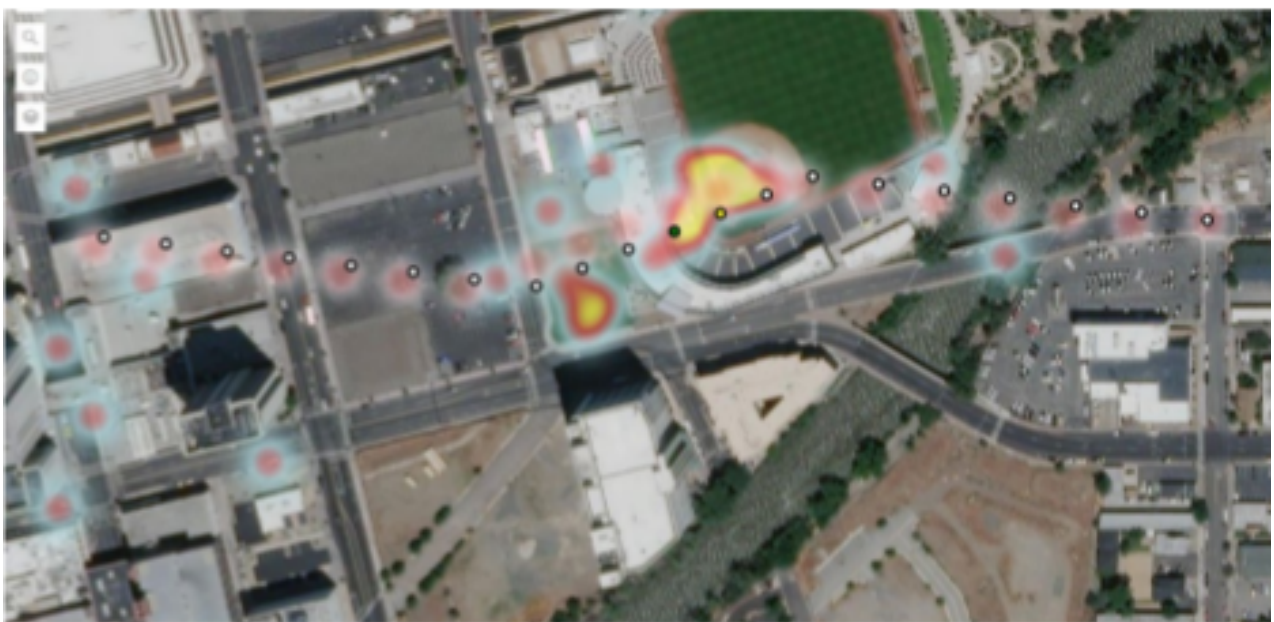


Population Density Features

- Aggregated unique devices in a geographical grid
- Perfect for general population movement and density
- Data output is aggregated by 10-100-1000 meter grids.



Flight Pattern over San Francisco, CA



Flight Pattern over Reno, NV



sales@airsage.com

(404) 809-2499

1350 Spring St NW Ste 475

Atlanta, GA 30309

<https://www.airsage.com/>