

Aerostratospheric's xHabNET Beta Turns a Phone Into an AI Sky Watch That Flags Unidentified Objects

Aerostratospheric's xHabNET beta runs a neural network on a phone to follow high-altitude launches and tags unidentified objects in the same record.

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midwestsds.com



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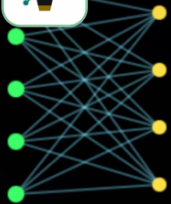
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October 2023
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Olney, Illinois Oct 7, 2026 ([Issuewire.com](https://www.issuewire.com)) - The browser-based beta follows a high-altitude launch second by second and tags what it cannot identify in the same record as everything else it sees.

Aerostratospheric, an Illinois nonprofit based in Olney, is developing a new way to obtain high-altitude data. Its beta, xHabNET, is sky-watch software that runs on a phone and records a launch as it happens. It is open now at <https://midwestsds.com/xHabNET.html>.

The easiest comparison is the camera-based driver-assist systems in modern cars. A neural network, trained with machine learning, learns what a road, a car and a lane look like, and the camera keeps watching as the car moves. xHabNET is the same kind of system, aimed up. It does not steer anything. It records the watch.

On a launch, xHabNET runs artificial intelligence and machine learning on the phone itself. It learns what the balloon looks like, locks onto it and follows it as it climbs. Using the phone's camera and GPS, it logs altitude, ascent rate, ground speed and distance from the launch pad every second. It estimates when the balloon is likely to burst and how far it will drift, and it gives a bearing for recovery. How high. How fast. How far. When it should burst. Which way to go to get it back. Each session can be exported as a CSV or JSON file.

The software also labels what else is in the frame: birds, airplanes, balloons, clouds, trees, the sun and the moon. When a small bright object shows up in open sky and the software cannot match it to an airplane, a bird or a balloon, it gets a plain tag: UFO. Unidentified, and nothing more. Aerostratospheric does not keep a separate UFO file. That tag is counted in the same camera-use record as every other label, and the counts measure how long a label was on screen, not confirmed detections. Summary camera-use data is compiled in xLiveFlights, the organization's public flight desk.

"We design the platforms, we fly them, and we publish what they measure," said Jeremy David Higgs, president of Aerostratospheric. "xHabNET is high-altitude sky-watch software we are developing for that work. It is a neural network on the phone, the same kind of system a car uses to watch the road, except this one watches the sky. It records the watch: how high, how fast, how far, and which way it is going. We do not keep a UFO file. If it sees something it cannot identify, that goes in the same record as everything else."

xHabNET comes out of Aerostratospheric's flight program. The organization designs, builds and flies lightweight high-altitude research platforms under FAA rules for unmanned free balloons (14 CFR Part 101). Its flagship platform is X2Griffon. Launches are private science operations. The public can follow live tracking on xLiveFlights and through amateur radio APRS position reports under call sign KE9CFY, and the organization aims to release flight data within about 48 hours of a successful recovery.

xHabNET is in beta and under active development. Researchers and developers interested in collaborating on tracking and data can reach Aerostratospheric through the media contact below.

About Aerostratospheric

Aerostratospheric is an Illinois nonprofit corporation and the home of Midwest Stratospheric Data Systems. It designs, builds and flies lightweight high-altitude platforms to collect atmospheric data and

release it publicly, and it publishes open atmospheric observations through Unified Open Global Weather (UOGW), its public atmospheric data commons. A ground weather station contributes surface observations to the GLOBE Program, a NASA-supported citizen-science program (registration GO-4VW9B). Aerostratospheric is headquartered in Olney, Illinois, with launch operations in Casey, Illinois. Learn more at <https://www.midwestsds.com>.

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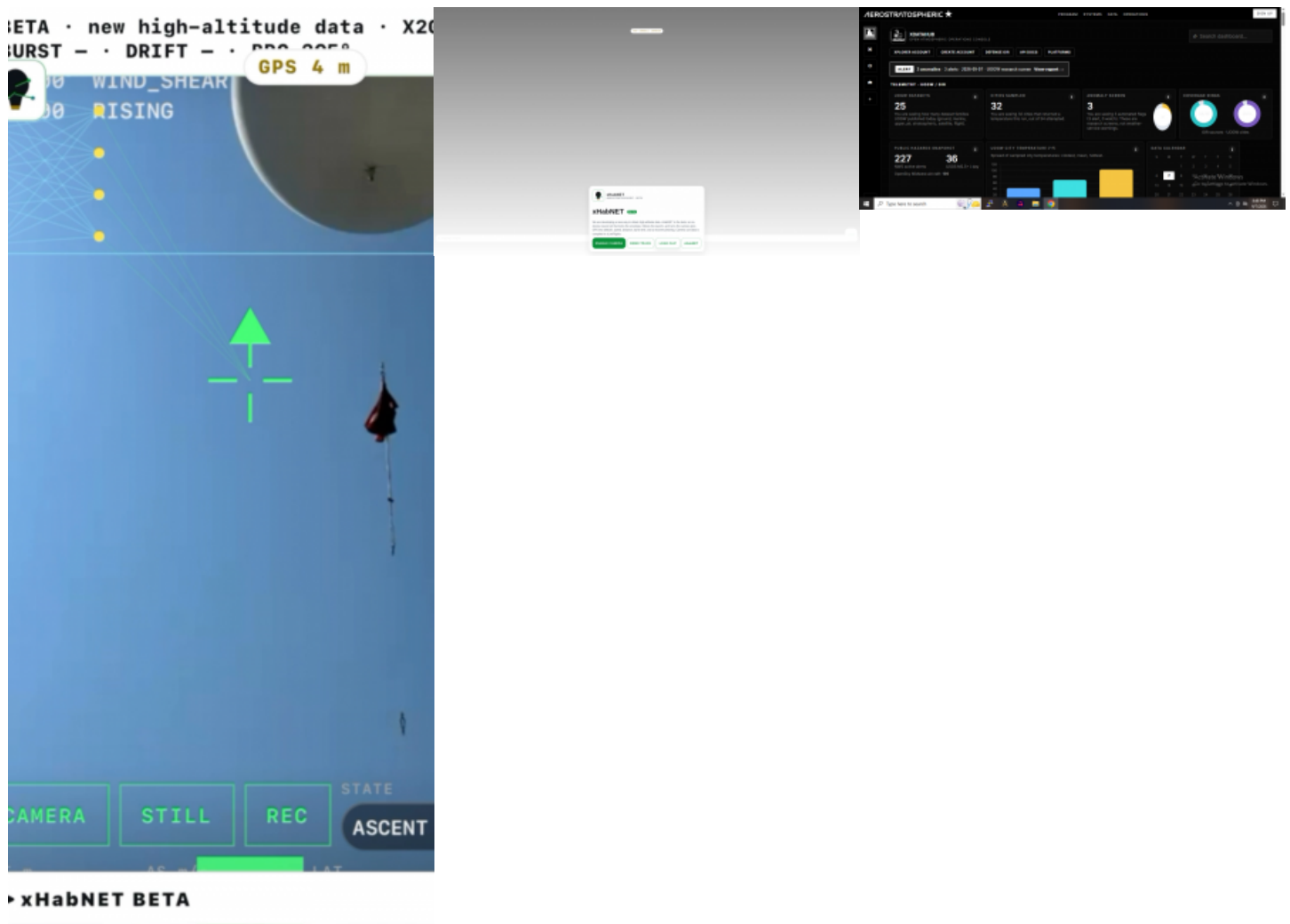
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