



25TH ANNIVERSARY NEWSLETTER

VECTRONIC AEROSPACE CELEBRATES 25 YEARS OF INNOVATION IN WILDLIFE CONSERVATION

It all began with a simple question: “Is the grass greener on the other side?”

After the fall of the Berlin Wall in 1989, researchers at a German university wondered whether roe deer (*Capreolus capreolus*) would continue to perceive the former border as a barrier—or if they would venture into the newly accessible landscape. To answer this, biologists turned to their colleagues in the university’s aerospace department with a request: could they build a GPS collar that would transmit location data remotely via satellite?

With their background in aerospace engineering and satellite communications, Mr. Pius Butz and Mr. Robert Schulte accepted the challenge. They developed both the GPS collars and the satellite-based communication platform necessary to deliver data to researchers on the ground. The project was a success—and word quickly spread.

Interest from the scientific community surged, leading Butz and Schulte to a crossroads between their academic responsibilities and this promising new field. In 2000, they made the pivotal decision to leave the university. They founded a new company focused on wildlife GPS. The name they chose—**Vectronic Aerospace**—reflects both their roots in vector-based mathematics and electronic systems engineering.

Today, Vectronic Aerospace is comprised of two divisions—Wildlife and Aerospace—with over 70 employees serving clients in 76 countries. More than 68,000 GPS collars have been deployed across the globe, supporting groundbreaking research and conservation efforts.

As we celebrate our 25th anniversary, we are deeply grateful to our clients—our partners, colleagues, and friends. Your trust and collaboration have shaped who we are. We listen, we learn, and together, we innovate.

From our team of dedicated engineers and biologists, thank you. Here’s to the next 25 years of advancing wildlife conservation—together.



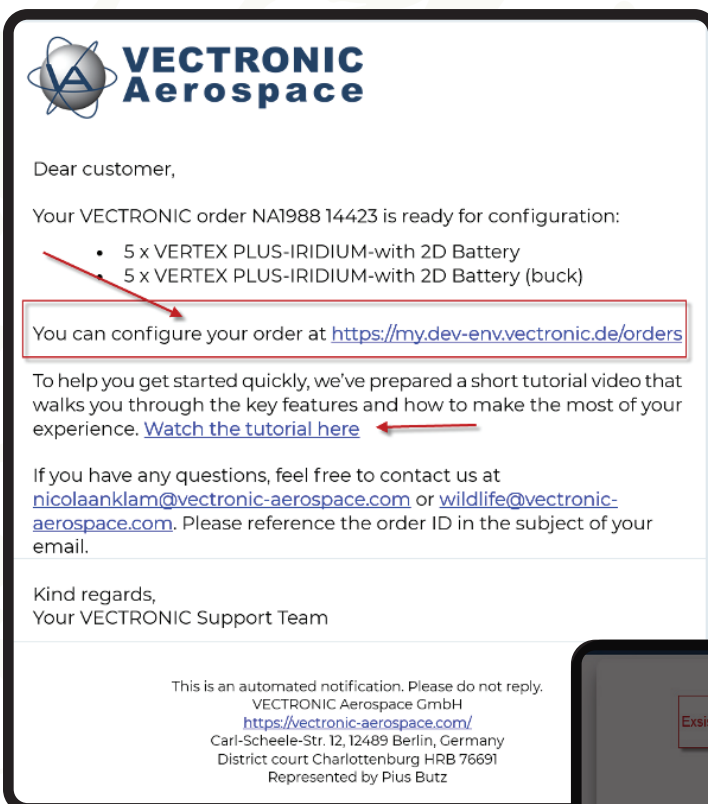
WHAT'S NEW


ON-LINE ORDER FORM (OOF) AVAILABLE

To streamline ordering GPS collars, we've introduced the **Online Order Form (OOF)**.

Here's how it works:

After you receive a Vectronic Offer (e.g. AN1988-202508806) from your account manager and approve the listed items for purchase, you will receive an email notification prompting you to complete the OOF. Please note that a **registered INVENTA account** is required to access and submit the form. To help guide you through the process, the OOF includes built-in information icons, and we've also provided a short YouTube tutorial for additional support. Once your order is submitted, you will receive a confirmation email with the full details of your order.



 **VECTRONIC Aerospace**

Dear customer,

Your VECTRONIC order NA1988 14423 is ready for configuration:

- 5 x VERTEX PLUS-IRIDIUM-with 2D Battery
- 5 x VERTEX PLUS-IRIDIUM-with 2D Battery (buck)

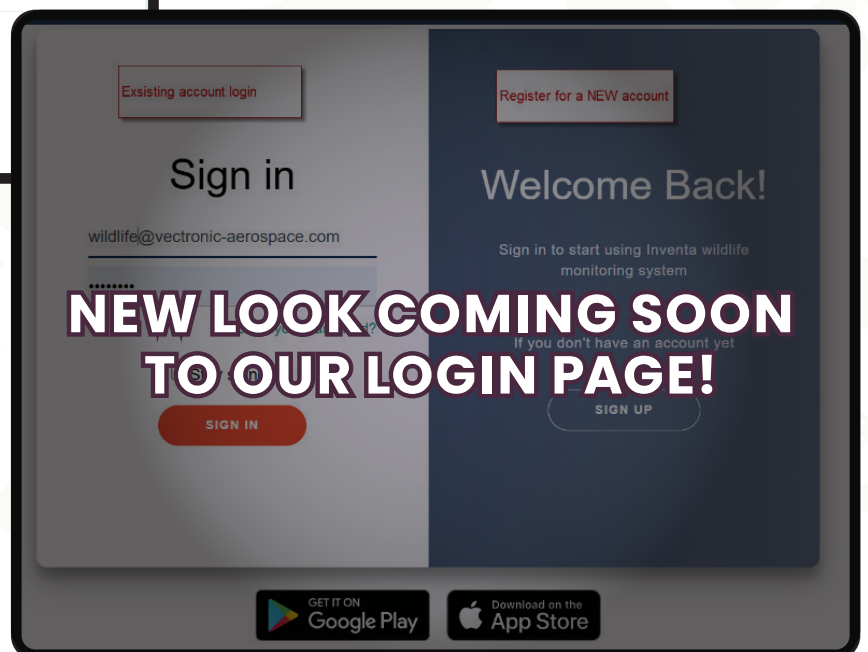
You can configure your order at <https://my.dev-env.vectronic.de/orders>

To help you get started quickly, we've prepared a short tutorial video that walks you through the key features and how to make the most of your experience. [Watch the tutorial here](#)

If you have any questions, feel free to contact us at nicolaanklam@vectronic-aerospace.com or wildlife@vectronic-aerospace.com. Please reference the order ID in the subject of your email.

Kind regards,
Your VECTRONIC Support Team

This is an automated notification. Please do not reply.
VECTRONIC Aerospace GmbH
<https://vectronic-aerospace.com/>
Carl-Scheele-Str. 12, 12489 Berlin, Germany
District court Charlottenburg HRB 76691
Represented by Pius Butz



Existing account login

Register for a NEW account

Sign in

wildlife@vectronic-aerospace.com

.....

NEW LOOK COMING SOON TO OUR LOGIN PAGE!

SIGN IN

Welcome Back!

Sign in to start using Inventa wildlife monitoring system

If you don't have an account yet

SIGN UP

GET IT ON Google Play

Download on the App Store



esri[™]

Partner
Network
Silver

NEWS

VECTRONIC AEROSPACE AND ESRI® LEAD THE PACK WITH WILDLIFE TELEMETRY AND DATA ANALYSIS SOLUTIONS.

Vectronic Aerospace has partnered with the global leader in GIS software and location intelligence, Esri®. Our partnership delivers seamless data from Wildlife GPS collars directly into your ArcGIS platform, empowering researchers with real-time insight and advanced spatial analysis tools for tracking and understanding animal movement like never before.

VECTRONIC partnered with Esri® to provide a data-driven solution and assist a US state agency with monitoring herds of bighorn sheep.

Esri® configured an ArcGIS dashboard to analyze GPS collar data and provide real-time alerts to wildlife managers when the bighorn sheep approached the highway right-of-way. Researchers can then use this visualized data to build a wildlife highway overpass in the perfect zone.

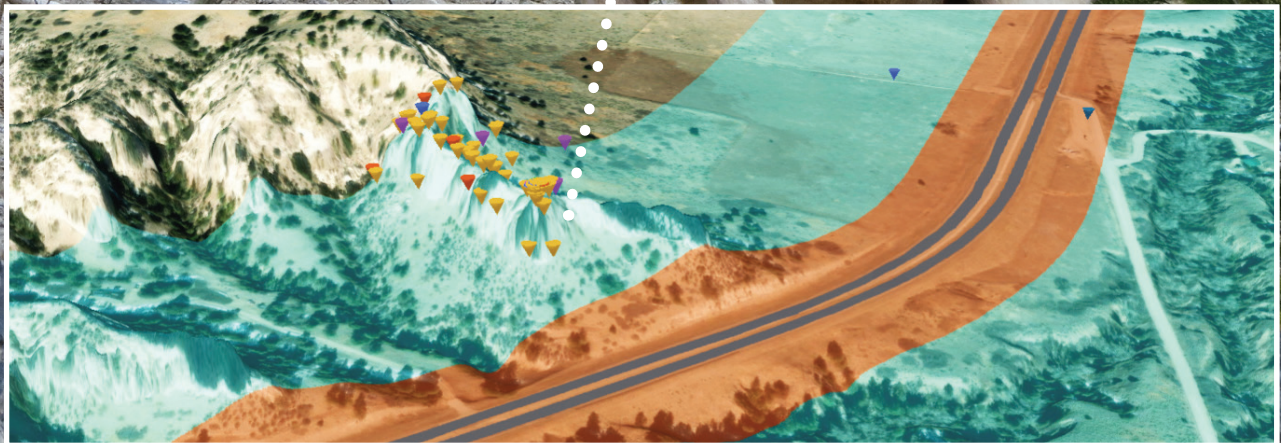


Photo Credit: Sarah Fassina

COMING SOON

INVENTA DESKTOP

INVENTA Desktop will put you in control of your devices including a complete account overview, detail list of all your devices, download data from a collar, change configuration of a collar, updating collar firmware, real-time transaction history and comprehensive monthly billing states related to your airtime account.

DEAD RECKONING

Dead Reckoning- Available in Vertex Plus collars is a tracking technique used in wildlife telemetry to estimate an animal's movement path between recorded GPS locations. It's especially useful when GPS fixes are intermittent or when conserving battery life is essential.

How it Works:

Instead of relying solely on frequent GPS signals (which can drain battery quickly), dead reckoning estimates the animal's path by combining motion sensor data—like accelerometers, gyroscopes, and magnetometers—with the last known GPS position.

Key Components:

- **Motion Data:** Direction (heading), speed, and movement patterns measured by onboard sensors.
- **Estimation:** By calculating the direction and distance traveled since the last GPS fix, the system “guesses” the animal's path until the next GPS point confirms or updates the track.

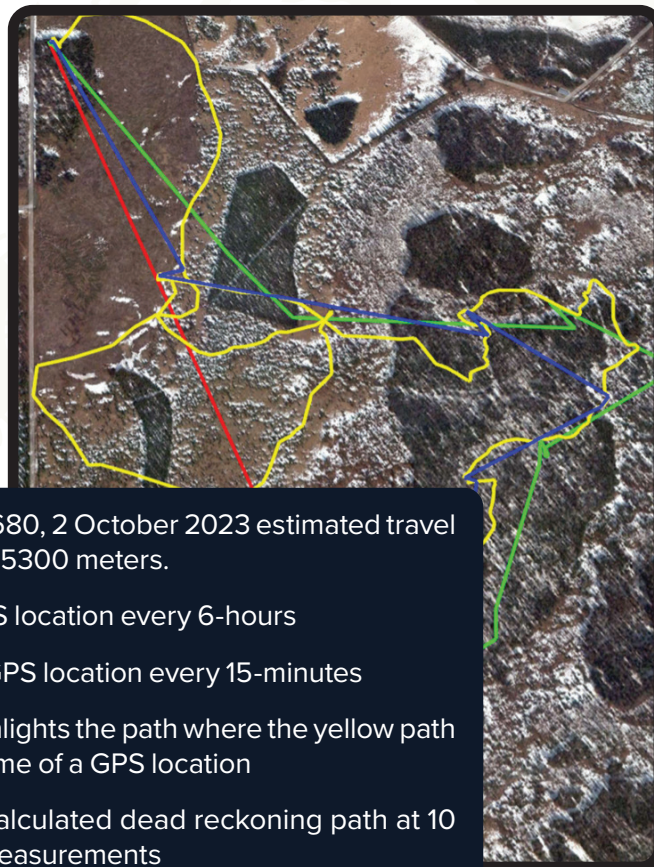
Benefits for Wildlife Monitoring:

- **Battery Efficiency:** Allows fewer GPS fixes while maintaining detailed movement paths.
- **Finer-Scale Movement Data:** Especially useful in dense environments (e.g., forests, caves, or canyons) where GPS signals may be weak or blocked.
- **Behavior Insights:** The motion data can also help infer behaviors such as resting, walking, or hunting.

In short, deadreckoning complements traditional GPS tracking by filling in the gaps between GPS fixes, offering a more complete and continuous picture of an animal's movements while extending collar lifespan.

ORDERING EARLY FOR 2026

Place your order early to avoid the stress of peak season. Our account managers love planning ahead!



Collar 30680, 2 October 2023 estimated travel distance : 5300 meters.

Red: 1 GPS location every 6-hours

Green: 1 GPS location every 15-minutes

Blue: Highlights the path where the yellow path is at the time of a GPS location








Yellow: Calculated dead reckoning path at 10 second measurements

SERVICE UPDATES

FIRMWARE UPDATES FOR COLLARS

Vectronic recommends updating the software on any collars that have been in storage and were not deployed, as well as those recovered from the field. To ensure optimal performance and compatibility, please contact your Vectronic account manager for guidance on selecting the appropriate firmware version, available on our website.

Firmware Updates

 <p>VERTEX PLUS (3.8.8) Steps for the VERTEX Plus Firmware Update IMPORTANT NOTE: You must test the collar after firmware update has been finished and before you deploy it to the animal again!</p>	 <p>SURVEY (2.4.22) Steps for the SURVEY Firmware Update IMPORTANT NOTE: You must test the collar after firmware update has been finished and before you deploy it to the animal again!</p>	 <p>VERTEX Lite (2.4.22) Steps for the VERTEX Lite Firmware Update IMPORTANT NOTE: You must test the collar after firmware update has been finished and before you deploy it to the animal again!</p>	 <p>VERTEX Mini (2.4.22) IMPORTANT NOTE: You must test the collar after firmware update has been finished and before you deploy it to the animal again!</p>
 <p>Handheld Terminal 2013 V6, v5.5.2</p>	 <p>Bluetooth Drop Off v1.2.3</p>	 <p>Drop Off Release Transmitter (1.0.3) ⇒ execute the firmware update procedure in your Drop Off Manager software.</p>	

UPDATE FIRMWARE ON HAND-HELD TRANSMITTER UNITS

New firmware updates are available for the handheld terminals: version 6 UHF HHT (grey top) version 7 UHF + Drop-off HHT (red top).

To perform the update, download the updater software. When the HHT connects, it will then automatically update and install the latest version of software.



FROM THE FIELD

WOLF RECOVERY MYSTERY SOLVED THANKS TO COLLAR PROXIMITY DATA

A female wolf (*Canis lupus*) equipped with a Vertex GPS collar suddenly stopped transmitting GPS location data. The scientists who had fitted the collar had also collared the female's brother with a similar GPS collar. Both collars were equipped with a proximity sensor as part of an interaction study. Two months later, the GPS data from the transmitting brother's collar suddenly showed the ID of the sister's collar—though only one time. The activity status of the sister's collar was marked as “alive,” which was surprising, as the female wolf had never been seen since her disappearance.

The researchers then set out to search for the missing female. Using the GPS positions transmitted by the brother's collar and the time of the proximity event (the recording of sister's collar ID), the researchers knew exactly where to look for the missing female. Which they did locate and unfortunately found the dead carcass trapped inside a drain ditch culvert. The water flowing through the drain ditch culvert kept the body moving back and forth and hence did not allow the mortality switch to activate. This is why the sister's collar activity status appeared to be “alive” when the proximity data was recorded on the brother's collar who was most likely walking near the drain ditch. Although no GPS positions could be sent due to the collar being submerged under water, the electronics still functioned, sending the collar ID.

Without the proximity function, the female wolf would likely never have been found. Despite being underwater for two months, the electronics worked perfectly when removed from the water, and the important GPS data were recovered which provided insight into the final hours of the animal.

Though the cause of death remains under investigation, the incident underscores the powerful role of telemetry technology in wildlife conservation. With features like proximity sensing, collars such as the Vertex Plus are doing more than tracking movement—they're revealing intricate behaviors, bonds between animals, and, in some cases, leading us to answers we didn't know we needed.

