



 **TRACAB**

Horse Tracking System

**Advanced GNSS-based
tracking**





Wearable performance analysis for both training and competition

TRACAB has been accurately measuring sports performance for well over 20 years. Today, TRACAB sits at the very heart of collecting the most accurate, consistent, and reliable sports performance data. Coaches and sports scientists use this data to make decisions on how to improve their athlete's fitness levels, reduce injuries, make tactical decisions, and ultimately improve their chances of success.

TRACAB Horse Tracking System (HTS), part of TRACAB's portfolio of wearable tracking technology solutions for sports, is a comprehensive satellite-based tracking system designed with the highest precision positioning components and live radio transmission technology.

Precise positioning, performance, and portability

TRACAB HTS is designed using the very latest in satellite tracking technology, including GPS, GLONASS and all available satellite constellations, to provide highly accurate positioning.

TRACAB HTS is further enhanced by a reference station that provides real-time correctional information to raw satellite positioning data, which compensates for the large variations that can occur with changing atmospheric conditions and other contributing factors.

The system can be used with reference stations on-site, or virtual, meaning it can be fully mobile.

All TRACAB HTS components are built with robustness and practicality in mind. Custom hardware enclosures have been meticulously crafted to handle harsh weather conditions and temperatures. Transponders can be placed in a custom flight case which also operates as a battery charger and can be transported as carry-on luggage.





Driving innovation in Horse Racing

TRACAB HTS is a complete tracking system built on three key components:

- Lightweight (100g) wearable Transponder tags
- Base Stations that receive GNSS data from the tags
- The cloud-based TRACAB Gateway server that processes and outputs live, real-time data for broadcasting and betting

TRACAB HTS can be deployed quickly and easily at a track or venue to support races with as many as 40 horses per event. Metrics captured and delivered by TRACAB HTS include:

- Timestamps for distance and sectionals
- Global coordinates (latitude, longitude, and height)
- Local coordinates (X, Y, and Z)
- Speed and acceleration
- Stride rate and length
- Gallop indicators

Near future development will also see IMU (Inertial Measurement Unit) outputs that will also provide improved event detections.

Technical specifications

Transponder

- Size: 55 x 100 x 25 mm
- Weight: 100 grams
- Environment Grade: IP67
- GNSS Compatibility: GPS/GLONASS/All available satellite constellations
- Update Rate: 10 Hz (configurable)
- Wireless Frequency: 5.0 - 5.9 GHz (configurable)
- Channel Width: 20 MHz
- Power Emission: 0 - 10 dBm (configurable)
- Temperature range: -20 to 60 °C
- Battery Life: 8 hours (active usage)
- Charging: Wireless (Qi)



Radio Receiver

- Environment Grade: IP67
- Wireless Frequency: 5.0 - 5.9 GHz (configurable)
- Channel Width: 20 MHz
- Electrical interface: PoE
- Range: > 1000 meters

Base Station

- Environment Grade: IP67
- GNSS Compatibility: GPS/GLONASS/All available satellite constellations/SBAS
- Electrical interface: PoE



Wireless Charger

- Size (WxDxH): 41.8 x 33 x 17.3 cm
- Slots: 20
- Weight: 9 kg
- Power input: AC 110-220V 150W
- Standard: Qi

Software

- Real-time system monitoring
- Custom RTK-based data coordinator
- Cloud-based API for data streams and extraction
- Transponder configuration tools





Our services

TRACAB partners with you to provide custom creative services

Offering custom graphic and skin design, our in-house expert designers can deliver stunning content to fit any program or team and create a truly bespoke experience.

About us

Headquartered in Stockholm, TRACAB specializes in the capture, distribution, analysis, and visualization of sports data and video content to address an array of applications for sports stakeholders. Its widely deployed sports technology solutions include the FIFA-validated, Emmy® Award-winning TRACAB™ optical and wearable sports tracking systems and Coach Paint for video analysis. TRACAB is a sister brand of Chyron, a household name and global leader in broadcast, with a focus on customer-centric innovation. Chyron offers the industry's most comprehensive software portfolio for the creation, visualization, playout, and presentation of live and data-driven graphics with ease. Headquartered in New York, the company has a global presence with offices in Sweden, the Czech Republic, Slovak Republic, Norway, Finland, Germany, the Netherlands, Denmark, Singapore, the United Kingdom, Mexico, and Argentina.

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