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To whom it may concern

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Letter of reference

OrniTrack brand of GPS-GSM transmitters includes a range of GPS-GSM tracking devices, including models **OrniTrack-50 4G**, **OrniTrack-30 4G** and **OrniTrack-20 4G** that communicate via mobile GSM networks and are equipped with multiple sensors and designed for the telemetry of various species of birds.

UAB "Glosendas" (Vilnius, Lithuania) is the **manufacturer** of OrniTrack transmitters and **"Ornitela", UAB** is the **sole exclusive distributor** of OrniTrack transmitters and the sole provider of technical support for these transmitters. To our knowledge, no products of other manufacturers match the size, ergonomic design, technical specifications, and performance, as well as cost-effectiveness of OrniTrack transmitters in bird telemetry.

It is important to note that the two-way communication with these devices (data download, upload of transmitter settings, over-the-air firmware updates, etc.) is preformed exclusively through the GSM mobile network, which ensures low running costs of transmitter operation and reliability of the well-proven communication technologies. Most OrniTrack transmitter models are now available in 4G version, which also supports the legacy 2G and 3G GSM protocols.

OrniTrack transmitters are built using cutting edge technology with the smallest components existing today, at the same time ensuring superior positioning as compared to earlier generations of GPS-GSM transmitters. Important to note that the transmitters have no external antennas (except for the very smallest models), their housings are strong and waterproof, specifically tailored to suit a wide variety of bird species and attachment methods.

OrniTrack transmitters log GPS positions and multiple sensor information and automatically upload data via GSM telecommunication network. Efficient solar panels and low power consumption allow collecting position data at very high rate: at 5–10 minute intervals as a base rate to 1 minute intervals in good light conditions. For limited periods it is possible to log positions as frequently as every second. In addition to collecting GPS position and movement information, each transmitter logs acceleration (3 axes), strength of magnetic field (3 axes) and temperature. Sensor data can be logged at up to 50 Hz frequency on a schedule independent from GPS position logging.

Because many bird species migrate to remote areas for breeding or wintering, they may disappear from GSM network coverage for months and thus would have no possibility to upload the collected data. This, however, does not affect the transmitter performance and data collection because internal memory is sufficient for storing up to about 2,000,000 data records (in 3G and 4G transmitter versions; up to about 60,000 records in 2G version). Data logged are stored in the memory and are automatically uploaded to the server once the birds return to the area with GSM network.

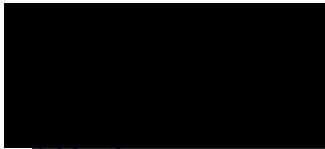
Users are completely in charge of all the transmitter settings that can be changes any time the transmitter connects to a GSM network. GPS and sensor logging and data upload scheduling is controlled by a user through the online control panel (M2M control). Additionally, automatic controls can be set using geofences, time scheduling or sensor readings. This allows balancing data collection with available power and maximizing transmitter performance when it is most needed.

Main data record logged with each position includes: UTC date & time, GPS position, GPS altitude, GPS speed, GPS direction, HDOP, battery voltage, battery charging current, temperature, magnetic field strength (3 axes) and instant acceleration (3 axes).

We offer OrniTrack transmitters at competitive prices and flexible data transfer fees. Our standard transmitter prices, which are among the lowest on the market, include a budget consumable towards data fees that is sufficient for about two years of bird tracking in Europe.

OrniTrack transmitters build on years of experience and technical transmitter development with thousands of birds successfully tracked across the world by hundreds of customers proving the reliability, user-friendliness and dedicated customer support of OrniTrack transmitters.

OrniTrack transmitters come with one year manufacturer's warranty and unlimited technical support from Ornitela team.



Mindaugas Dagys

Director

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