

SYRLINKS WILDLIFE[®] launches its ARGOS satellite tracking beacon for large-scale monitoring of bird populations

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Cesson-Sévigné, France, 2020, october 6th - SYRLINKS WILDLIFE[®] unveils its new low-cost ARGOS beacon to help scientists track by satellite animal populations on a large scale.

Thanks to the ARGOS satellite system, born of a collaboration between France and the United States in the 1980s, scientists from all over the world have been studying and monitoring the daily evolution of our environment for more than 30 years.



A wandering albatross in the Kerguelen Islands ready to fly away with the Syrlinks beacon - © Alexandre Corbeau, CEBC-CNRS

Over the last few decades, ARGOS technology has been used in a wide variety of scientific studies on climate, the oceans, the poles, as well as changes in the behavior of great migratory species (marine mammals, turtles, birds, etc.). All these data collected regularly by satellite contribute to a better understanding of the major environmental and climatic changes on our Earth and their impact on biodiversity.

For the monitoring of certain migratory birds, the compactness and lightness of the beacons are essential so as not to disturb their behaviour. The ARGOS MRBA-25G micro-beacon is among the most compact and lightweight beacons in the world. It weighs less than 25 grams and has all the electronics to transmit its data to satellites for several years and in total autonomy.





SYRLINKS WILDLIFE[®] has observed that ARGOS micro-beacons are still very expensive despite the large demand from scientists (up to 4,000€ per unit for the most expensive ones). They are generally manufactured in very small quantities, sometimes in a quasi-handycraft way. These high prices greatly reduce the capacity of researchers to follow larger quantities of birds, and deprive them of a truly population-based approach to obtain data essential for improving their studies.

Thus, SYRLINKS has decided to industrialize its MRBA-25G beacon on a large scale in order to reduce the cost for the scientist by a factor of four. Scientists and researchers will be able to acquire a beacon for less than 1,000€. In doing so, with the same budget, they will be able to ensure the scientific monitoring of 4 times as many birds. The challenge of animal massive monitoring is a major one in order to participate in the protection of endangered species, but also to study on a large scale the behavioral strategies of wild animals (migration, dispersal) and to have access to much more relevant and numerous scientific data.

SYRLINKS WILDLIFE[®] is a registered trademark of Syrlinks' geolocation products: syrlinks-wildlife.com

The ARGOS system: how it works

The ARGOS constellation today consists of 8 satellites placed in orbits about 850 km from the Earth and covering the whole of the Planet. These satellites receive the signals sent by the beacons and retransmit them to 50 ground receiving stations positioned all over the world.

The data thus collected by the ARGOS ground stations are transmitted to CLS, the ARGOS system operator based in Toulouse, France. The data collected includes the GPS position but also other information from the beacon's on-board sensors (accelerometer, temperature, immersion, etc.).

Scientists can then retrieve this valuable information for their environmental and behavioral studies.

The MRBA-25G beacon from SYRLINKS WILDLIFE®: a concentrate of technology

MRBA-25G has a life expectancy of more than 2 years. Compact and light, 71 mm long, 27 mm wide and 13 mm high for about 25 grams, it allows the position of the animal to be located permanently with very good precision, which can be less than 10 metres. The beacon also carries several sensors (accelerometer, immersion, temperature) that can be used by scientists to better understand the animals' behavior.

The beacon is easily attached to the animal, thanks to four anchoring points on either side of the beacon. Depending on the needs and the species to be monitored, it is also possible to add a spacer with the beacon to facilitate its attachment to the animal.



ARGOS has around 25,000 active beacons worldwide, 8.000 of which are used to track animals. Its users are located in about 100 countries, mainly in North America, Australia and Europe.

This beacon is currently being used by the CEBC-CNRS, with whom Syrlinks has been working closely for 2 years.

SYRLINKS WILDLIFE® has also planned to offer scientists the possibility of remotely setting certain emission modes of the beacon thanks to a Smartphone application via BlueTooth. MRBA-25G is also waterproof up to 10 meters and is suitable for tracking seabirds landing or swimming on the ocean surface.



MRBA-25G ARGOS PTT: technical characteristics

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ABOUT SYRLINKS WILDLIFE®

SYRLINKS WILDLIFE[®] is the registered trademark for Syrlinks' wildlife tracking and geolocation products. It is aimed at all scientists whose objective is the study and protection of wildlife. With this new brand name, Syrlinks is positioning itself as a newcomer to the market of bio-logging and large-scale tracking of wild animals.

ABOUT SYRLINKS

SYRLINKS, based in Cesson-Sévigné, France, designs the most innovative technologies in the fields of space communications, emergency beacons and radio systems for defense. Syrlinks manufactures robust, miniature and high-performance products for all its customers around the world. "Bio-logging", a rapidly developing discipline, consists of collecting physiological and behavioral data using sensors installed on animals.

More information on syrlinks-wildlife.com

Its products are now deployed on hundreds of satellites and have also been used in many high-profile space missions such as Rosetta and its small Philae Robot to explore Comet Chury at the edge of our solar system. More information on syrlinks.com

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