Flying Wildlife Finder: Award for Animal Conservation Project

07 November 2012

Every year, over 100,000 fawns are injured or killed by farming equipment in Germany. Young deer crouch down when danger threatens instead of fleeing, and thus become casualties. The "Flying Wildlife Finder," an application system developed by the German Aerospace Center (DLR), prevents accidents by detecting animals hidden in tall grass during the hay harvest. At the same time, this animal rescue prevents the contamination of grass cuttings by animal carcasses. For the innovative idea of a "Flying Wildlife Finder," the DLR Remote Sensing Technology Institute was recognized as one of 365 "Featured Locations 2012" in a "Country of Ideas." The award ceremony took place on 7 November 2012 in Oberpfaffenhofen. This competition is organized by the nation-branding initiative "Germany – A Country with Ideas" in cooperation with Deutsche Bank.

"That we also placed well in the public voting, besides receiving the 'Featured Location' honor, tells us how popular our project is with the general public," commented DLR project leader Martin Israel. The "Flying Wildlife Finder" was selected from over 2,000 entries from all over Germany by a jury composed of scientists, business managers, journalists and politicians. Michael Junge of the business customer department of Deutsche Bank Munich presented the award, emphasizing that, "the ' Flying Wildlife Finder ' is a typical example of the wealth of ideas in this country: always focused on the practical realities of people and nature, creative, and economical." The relevance of the project from the viewpoint of hunters was described by Dr. Ernst Moser in a progress report of the Upper Austrian State Hunting Association and the Bavarian Hunting Association.

Rescue begins aloft

The "Flying Wildlife Finder," a remotely controlled aerial drone equipped with sensors and a GPS link, is sent on a reconnaissance flight before mowing starts. A high resolution thermal imaging camera detects the temperature of animals hidden in the grass, which is higher than the ambient temperature of the field. This information is analyzed by a computer on board the aircraft and transmitted to a ground station, from where a search party is led to the fawn’s resting place with the help of GPS.

From idea to product

The "Flying Wildlife Finder" is a key element of a future practical and marketable wildlife rescue system. It involves electronically marking the fawns detected by the "Flying Wildlife Finder" several days before the mowing is scheduled with the help of a RFID (Radio Frequency Identification) system, so that they can be reliably found and moved to a safe place in good time just before the mowing operation begins. Uncoupling the search and mowing activities reduces the strain on the search party, which is under high time pressure during spring mowing.

Under a grant from the Federal Ministry of Food, Agriculture and Consumer Protection, DLR is carrying out this project together with the agricultural technology company CLAAS and Munich Technical University (TUM), under the leadership of ISA Industrieelektronik GmbH.

Contacts

Bernadette Jung
German Aerospace Center (DLR)
Public Affairs and Communications: Oberpaffenhofen, Weilheim, Augsburg

Tel.: +49 8153 28-2251
Fax: +49 8153 28-1243
Bernadette.Jung@dlr.de

Award to the DLR Remote Sensing Technology Institute

For the innovative idea of a "Flying Wildlife Finder," the DLR Remote Sensing Technology Institute was recognized as one of 365 "Featured Locations 2012" in a "Country of Ideas." In the picture (from left to right): Michael Junge, Firmenkundengeschäft der Deutschen Bank München, Prof. Dr. Richard Bamler, Head of DLR Remote Sensing Technology Institute, Martin Israel, DLR project leader of 'Flying Wildlife Finder', Dr. Peter Haschberger, Head of Department at the DLR Remote Sensing Technology Institute, Corinna Pregla, Land der Ideen Management GmbH.

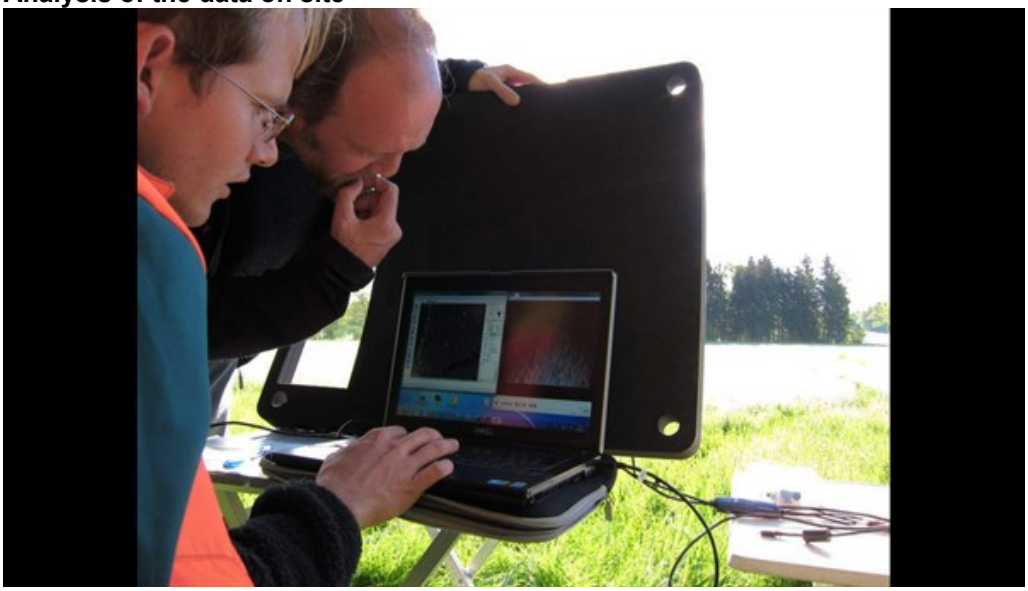
Credit: DLR (CC-BY 3.0).

Rescue begins aloft

The "Flying Wildlife Finder," an application system developed by the German Aerospace Center (DLR), prevents accidents by detecting animals hidden in tall grass during the hay harvest.

Credit: DLR (CC-BY 3.0).

Analysis of the data on site



The sensor information is analyzed by a computer on board the aircraft and transmitted to a ground station, from where a search party is led to the fawn's resting place with the help of GPS.

Credit: DLR (CC-BY 3.0).

A hidden fawn - detected by thermal imaging camera

A high resolution thermal imaging camera detects the temperature of animals hidden in the grass, which is higher than the ambient temperature of the field.

Credit: DLR (CC-BY 3.0).

"Wildlife Finder": The goal is to rescue fawns during the mowing of agricultural land

The goal is to develop a system for rescuing fawns during the mowing of agricultural land. Under the leadership of ISA Industrieelektronik GmbH, the German Aerospace Center DLR is working with its project partners, the agricultural technology company CLAAS and Munich Technical University (TUM). This joint project is supported by the Landesjagdverband Bayern, with the project administration being handled by ZENTEC GmbH.
