

Poland's armed forces find their way with Honeywell

Honeywell TALIN solution provides value precision navigation and pointing solutions



Overview

WZE S.A. provides reconnaissance and electronic warfare solutions on behalf of the Polish military. It was responsible for developing the navigation system in the country's KTO Rosomak wheeled armored vehicle and, to ensure reliability and a high level of support, chose to build a long-term partnership with Honeywell that involved creating a solution based on its Tactical Advanced Land Inertial Navigator (TALIN).



AT A GLANCE

Customer

Name: Wojskowe Zakłady Elektroniczne SA (WZE S.A.)
Location: Zielonka, Poland
Industry: Defence
Website: www.wze.com.pl

Honeywell solutions

TALIN 3000, TALIN 4000, TALIN 5000

Why WZE S.A. chose Honeywell

- ▶ Common user and electrical interfaces across all versions of Honeywell TALIN
- ▶ Proven and reliable technology, making it easier to put into service
- ▶ Technical support in the region

Customer results

- ▶ High level of reliability while being used in theatre
- ▶ Few repairs required, minimising the cost of spares and logistics
- ▶ Common electrical interface is making it easier and cheaper to incorporate Honeywell TALIN into other types of vehicle used by the Polish Army



Background

WZE S.A. (Wojskowe Zakłady Elektroniczne S.A.), which translates as 'Military Electronic Works', was established in 1952 and the company is wholly-owned by the Polish government.

It was originally formed to overhaul radio location equipment that was produced in the former Soviet Union and that was being used extensively across the Polish military.

But, as the country undertook a comprehensive modernisation programme of its military technology, WZE became involved in the development of completely new solutions, particularly systems for reconnaissance and electronic warfare.

One of its recent projects involved the development of a navigation system for the new KTO Rosomak wheeled armoured vehicle, which the Polish military ordered as a replacement for ageing OT-64 SKOT APCs and some of its BWP-1 1FV vehicles.

The KTO Rosomak is an 8x8 multi-role vehicle and a total of 895 have been ordered for the Polish Army. Of these, just over 300 will be combat vehicles armed with a 30mm gun turret and the remainder will be baseline models.



These include medical evacuation vehicles, armoured personnel carriers, an infantry fighting vehicle modified for war in Afghanistan that is equipped with additional steel-composite armour and command vehicles for battalion commanders and air defence.

So far around 350 KTO Rosomaks are in operation and the Polish Army is taking delivery of about 50 more per year.

Business Need

Modern fighting vehicles are equipped with navigation systems and WZE was commissioned to build a solution for the new KTO Rosomak.

The system would need to be easy to use, it would need to work independently from global positioning systems (GPS) and it would need to be reliable so that WZE's end customer, the Polish Army, could keep the cost of spares and logistics to a minimum.

Looking further ahead, WZE anticipated a need for commonality across different types of vehicle being operated by the Polish Army and so was looking for a solution that would be available with different price and performance levels to suit a range of military applications.



In the future, this would provide the Polish Army with a common user interface and minimise logistical support costs, as only one test system would be required for the entire family of products.

Solution

WZE entered into an agreement with Honeywell which would see the company's Tactical Advanced Land Inertial Navigator (TALIN) form the heart of the KTO Rosomak's navigation system.

TALIN is a low-cost ring-laser-gyro-based system for automated positioning, pointing and navigation

It provides precise and continuous position and velocity information to the crews of tactical military vehicles such as battle tanks, infantry fighting vehicles and armoured personnel carriers.

An inertial sensor package provides improved situational awareness on the field of battle by displaying information in three dimensions – forward/backwards, up/down and left/right.

This is combined with rotation about three perpendicular axes (yaw, pitch, roll) and a GPS receiver to offer unprecedented robustness, even in challenging GPS environments, in one compact unit.

The TALIN family of products is adapted from high-volume airborne inertial system components and is used for combat vehicle applications.

TALIN systems provide continuous, self-contained, accurate location and pointing information for enhanced situational awareness, far target location, target acquisition, weapons pointing and sensor pointing.

Honeywell provides a broad spectrum of TALIN products, from low cost solutions through to high performance systems that provide the highest levels of accuracy for critical applications.

Underpinned by the global support offered by Honeywell, TALIN was selected by WZE for the KTO Rosomak's navigation system. In the future, it is expected that TALIN will also be used to improve shooting accuracy by supporting the pointing of mortar and rocket artillery.

Benefits

More than 350 KTO Rosomaks have already been delivered and the vehicle has seen service in Afghanistan, where the Polish Army is acting as part of the International Security Assistance Force and where TALIN has proven to be highly reliable.

As a result of the system's success and the strength of Honeywell's relationship with WZE, the company is now planning to use TALIN in other projects.

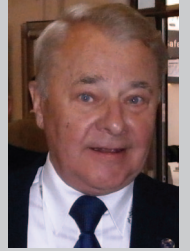
These include the incorporation of TALIN 5000 in to rocket launchers - the Langusta, in which the system will be a retrofit, and within the new RAK that is yet to enter service.

"Our strong relationship with Honeywell means that we were able to introduce leading-edge, reliable technology into systems that we have developed for the Polish Army," said Mr Zak, chairman and CEO, WZE.

"The Honeywell TALIN product has proven itself in the field and we have had good feedback about the system from the Polish Army.

"The system's common interface makes it easy for operators to use and, by sharing technology between different versions of the system, Honeywell has ensured that fewer types of spare parts need to be carried. This makes logistical support easier and cheaper."

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Mr. Zak
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