Press release

SODERN ANNOUNCES A NEW VERSION OF ITS DAYTIME STAR TRACKER SOLUTION AT THE EUROSATORY 2024 EXHIBITION

- Sodern unveils a new agile and even more accurate version of its daytime star tracker.
- This solution allows positioning with the help of the stars, both during the day and at night, with numerous possible applications in flight and on the ground.
- Even in cloudy conditions, the ground tracker can continue to detect the stars and provide accurate data.
- A full-scale mock-up will be exhibited on an armored vehicle from the Arquus company.

June 11, 2024 – Sodern is pleased to announce a new version of its daytime star tracker solution at the Eurosatory Global Event for Defense and Security, to be held from June 17 to 21, 2024 in Paris-Nord Villepinte.

After several years of research and development, Sodern has developed an endo-atmospheric star tracker which, combined with an inertial unit, offers a new solution for on-board positioning.
This high-performance system operating during the day and at night is sovereign, cannot be jammed or decoyed and has the advantage of emitting no waves which could make the carrier detectable.
This solution, presented for the first time at the Paris Air Show in 2023, has since then been optimized for ground applications.

Fabien Robert, Head of Development and Commercial Operations, explains: "*We are continuing to improve and develop our daytime star tracker solution to adapt it to a wide range of land, sea or airborne carriers. This solution has a number of advantages which*

lie in its increasing compactness making it suitable for a large number of uses. The current context means that we are regularly identifying new types of applications. We are on track to propose a commercial product in 2025."

This new agile solution was specially designed for ground carriers and vehicles

With the previous version being specifically designed for airborne applications, it naturally operated above the clouds. This improvement offers a major advantage for all applications operating at ground level.
The daytime star tracker is now agile and can detect stars in complete daylight, even in cloudy weather. The tracker can now be swiveled and automatically points at the best field to locate the stars.

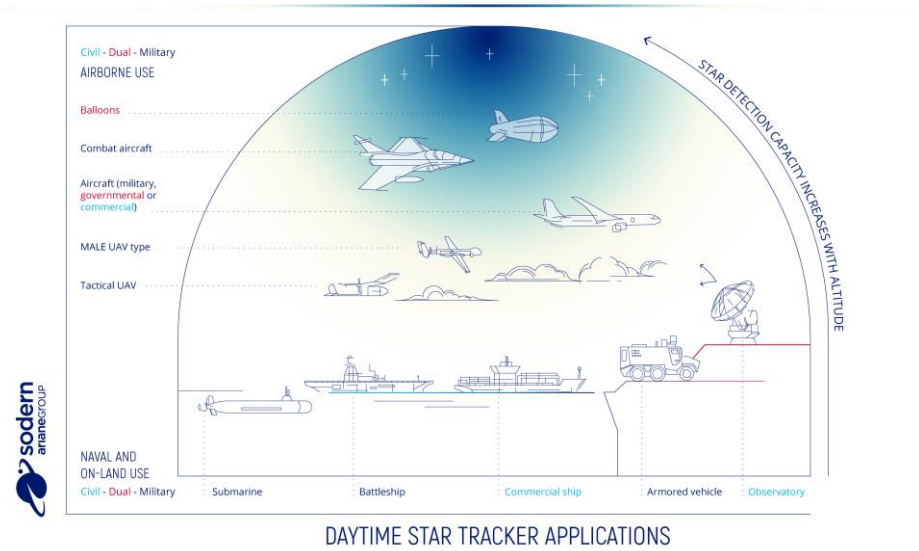
A second technical achievement should also be underlined: Sodern has improved the accuracy of its daytime star tracker.

Further progress in performance now enables positioning to within a hundred meters to be envisaged.

Unlike satellite positioning systems, this merged "inertial unit-tracker" navigation system provides reliable and secure information.

Most positioning systems today have the drawback of being extremely vulnerable, because they use technology based on satellite radio-navigation signals (GPS, Galileo, etc.). These positioning services may not only be unavailable, but can easily be jammed or decoyed and generate false data, erroneously indicating that the subject is positioned elsewhere. Sodern proposes an all-new reliable and attack-proof technology contributing to secure and autonomous navigation for all types of civil or military airborne or maritime carriers.

Nicolas Dekyvere, Product Manager for the Arquus company, says: "*The huge interest for our vehicles is the possibility of identifying their position in real-time, while being immune to jamming. The system is also compact and consumes little, which makes it easier to install. Knowing the exact position of the vehicle, even in a jammed environment, is increasingly demanded by our customers, not only for navigation, but also for beyond-line-of-sight (BLOS) missile firing or artillery fire direction.*"



Many new applications are being explored

Apart from the positioning application, this system also proposes a native capability for directing any instrument requiring precise pointing to within a few arc seconds, which opens up other potential uses.

The equipment is then suitable for any application looking to refine its sighting or heading data by measuring its alignment with the stars, including in the daytime.

Sodern will be present at the Eurosatory exhibition, Hall 6 – stand D119.
Arquus will be in Hall 5A – stand F79.

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About Sodern

Sodern is an equipment manufacturer that combines commitment with expertise. Its French and international customers work in the fields of defense, space and raw materials mining.
Drawing on more than 60 years of innovation, Sodern designs and builds reliable, competitive and high value-added solutions to help its customers meet today's local and global challenges. Sodern provides optronics equipment (star trackers, cameras, etc.) for satellites and spacecraft and for all types of missions: telecommunications, observation, scientific programs, etc., as well as being active in the fields of national sovereignty and security. Sodern is also a pioneer in neutron analysis instruments, used by the mining industry to explore and analyze sub-soils.
Sodern is a subsidiary of the European leader in access to space, ArianeGroup, and employs 450+ highly qualified people. Its 2022 turnover exceeds €80M. Sodern is located in Limeil-Brevannes (94), in France.
www.sodern.com

Specifications and information are approximate and subject to change without notice or obligation on the part of the manufacturer.