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## HENSOLDT Passive Radar proves Network capability

Mobile real-time system network for monitoring without being detected itself

**London, 11 September 2017** – The passive radar system newly developed by HENSOLDT has proved its capability of being operated in a multi-sensor network – the so-called clustering – in a number of field tests in real scenarios. With the new system architecture for mobile deployment, the setup of a real-time system network comprising several devices separated from each other proved the capability of passive radar to perform in areas with a low concentration of transmitters as well.

As reported at London's DSEi exhibition, HENSOLDT's passive radar demonstrated its ability to detect a wide range of targets in mission scenarios similar to those of various European armed forces, amongst other locations, in mountainous terrain with areas of major radar shadow. At the same time, the system established the latest air situation picture in a very short time, at ranges of up to 200 kilometres. A new, extremely precise digital receiver gives the system excellent capabilities that are unique in the world. Passive radar processes signal echoes from third-party transmitters, such as radio or TV stations, which are up to 10 billion times weaker than the original signals.

Thanks to the deployment of several interconnected passive radar sites, the absence of commercial transmitters in thinly populated regions can be compensated for since the fusion of data from three or more passive radar systems alone provides exact information on the target.

In contrast to conventional active systems, passive radar systems don't emit any signals. They use the echoes of existing signals from third-party transmitters to illuminate the targets. Working as mere receivers, passive radar systems detect targets by analysing the signals reflected by them in response to third-party emissions.

When deployed in the civilian sector, passive radar can provide air traffic control with an inexpensive supplement to existing sensors, e.g. as a backup for other sensors or as an important sensor in areas with a lot of restrictions as a result of reflections off the slopes of mountains or other obstacles. Furthermore, passive radar can be used at small and medium-sized airfields, which previously had no primary radar. The fact that these systems do not emit their own signals allows security to be provided for critical infrastructures or large events in densely populated areas without occupying any transmission frequencies, which are in short supply.

In military applications, the system enables large-area surveillance using networked receivers, while offering the decisive operational advantage that "passive radar" systems cannot be located by the enemy. Further advantages of the new technology include the

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option to deploy several interconnected systems to improve target acquisition in mountainous regions and the high level of resistance to disruptive reflections, e.g. from mountain slopes. Two demonstration systems have already been delivered to a military user.

**About HENSOLDT**

HENSOLDT is an independent, globally leading supplier of premium sensors for security and surveillance missions. The company is active throughout the world in such areas as missile warning systems and submarine periscopes. Moreover, HENSOLDT is very active in the market for radar systems, optronics and electronic protection systems. The company comprises the security and defence electronics activities of the Airbus Group, which were spun off from the group in 2017 and have now entered the market as a new sensor house under the brand name of HENSOLDT. HENSOLDT employs approximately 4,000 employees, generating annual revenues of about €1 billion.

[www.hensoldt.net](http://www.hensoldt.net)

**Photo caption:**

To see without being seen: HENSOLDT's passive radar.

Photo: HENSOLDT

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