

World Success of Czech Passive Radiolocation

ERA celebrated the 20th anniversary of the founding of the company

ERA a.s., pioneer and leading supplier of next-generation surveillance and flight tracking solutions for the air traffic management and military operations reached the 20th year of its existence.

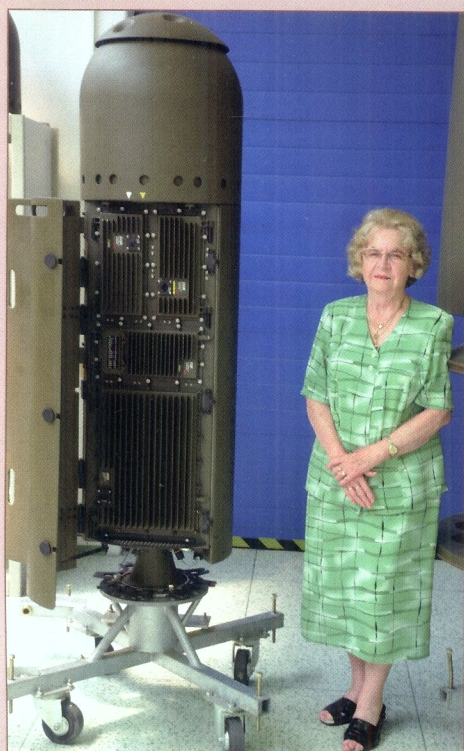


ERA's unrivalled technological history dates back to 1963, when the first radiolocation engineers began developing passive surveillance systems for company Tesla in the Czech Republic. The founders established their own company, ERA, in 1994 to manufacture and supply Czech Army, ATC authorities and other customers with professional electronic equipment, specifically using passive radiolocation techniques.

ERA is the founding developer of the respected technologies of multilateration (MLAT) and ADS-B for the civil sector and thanks to it and the company's traditional product - the VERA Passive ESM Tracker for defensive applications - ERA's systems are installed around the globe ensuring safety and efficiency of ATM. ERA has more than 100 installations of its system in 55 countries of five continents.

ERA within its history reached many technological and business milestones which can proudly be called Firsts and Bests:

The world's first MLAT system for military purposes – the Czech Armed Forces (1963)



After the first passive surveillance system (PSS) Kopac, the legendary Ramona and Tamara came about followed by PSS VERA, a system for military purposes named after Colonel Věra Perlínerová (on a photo with 5th generation VERA-NG), the ATM controller of the Czech Armed Forces. Her successors have made use of the ERA ATC system based on multilateration - VERA-A since 1996.

The world's unique and no. 1 PET (Passive ESM Tracker) – VERA (since 1995)



ERA has created the ultimate, world-leading and advanced Passive ESM Tracker (PET) VERA. Its 5th generation VERA-NG utilizes MLAT techniques to locate and track targets by multilateration on various electronic emissions in a broadband range. The passive technology utilized by ERA allows for a virtually undetectable operation, it emits zero electromagnetic energy making it invisible to anti-radar missile systems. It sees without being seen!

The world's largest WAM nationwide coverage – Namibia (2009)

The Wide Area Multilateration system (WAM) in Namibia is the largest system of its kind in the world both in terms of area (a territory as large as Germany and France together) and the number of ground stations deployed across the entire country. The Namibia WAM system employs 54 widely separated and



unmanned ground based stations which face all climate challenges.

The world's first complete country WAM coverage – the Czech Republic (2003-2011)



The first ever Wide Area Multilateration system deployed around Ostrava Mošnov airport in 2003 along with the WAMs in Prague and Brno (2006 and 2009 respectively) provides nationwide coverage of the Czech Republic's airspace. The air navigation Services (ANS) of the Czech Republic have made extensive use of ERA's capabilities since 1999, WAM Czech Republic currently conducts flight tracking and surveillance for the entire country.

The world's first implementation of PET and PCL systems - Silent Guard (2013)



The demonstrator of passive surveillance systems known as Silent Guard implemented ERA's PCL and PET (VERA-NG) systems for the 1st time ever. The PCL (or else MSPSR in Eurocontrol terminology) demonstrator has been developed as an FM based multistatic

radar, utilizing a reflected signal and is therefore able to detect non-cooperative and quiet targets. The demonstrator has been used for mobile deployment in a vehicle the size of a commercial van and can thus be moved extremely quickly and with little logistical effort.

ERA signs a NATO contract for the supply of two VERA-NG systems (2014)



Last spring a contract was signed between ERA and NATO Communications and Informa-

tion Agency in its headquarters in Brussels for the supply of the fifth generation passive surveillance systems VERA-NG for the needs of NATO. The supply includes two mobile VERA-NG systems and logistic support including operator training.

ERA took part of the NATO exercise Unified Vision in Norway (2014)



ERA participated in NATO military exercise Unified Vision 2014 with its passive radiolocation system VERA-NG and MSPSR technology demonstrator Silent Guard. UV14 was NATO's biggest ever trial of Joint Intelligence, Surveillance and Reconnaissance (JISR), comprising satellites, aircraft, unmanned aerial vehicles, naval vessels, ground surveillance sensors and human intelligence from 18 NATO Allies.

Text and photo: ERA



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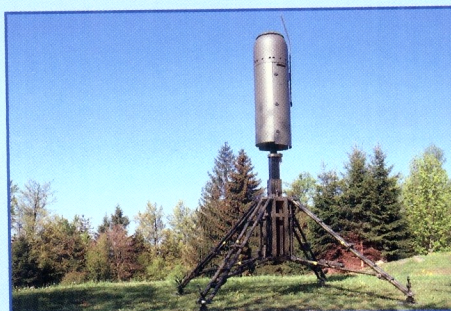
Aircraft and helicopter avionics:

- installations, integrations, upgrades
- turn-key solutions and applications
- engineering and technical support

Tanks and armoured combat vehicles:

- higher maneuverability
- increased passive protection
- higher firing efficiency
- improved communication system

Maintenance, repairs and overhauls



Defence Electronics

Passive signal monitoring systems:

- ELINT and COMINT systems
- mobile and stationary versions with long-range up to 700 km
- portable battlefield systems with wide frequency range

Air command and control systems:

- open architecture, modularity
- high interoperability with other systems and data sources

Communication systems



Homeland Security Systems

Border and facilities protection systems:

- turn-key modular project solutions
- mobile and stationary camera systems
- perimeter protection and intrusion detection

Equipment for police and security units:

- detectors of explosives and metal objects
- road traffic control systems

Modular RCIED jammers:

- portable "backpack" (output 40 W)
- vehicle-mounted (output 150 – 740 W)

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