E-LETTER FOR PARTNERS OF ERA COMPANY

January 2023

No. 18

ERANEWS

ERA PASSIVE SYSTEMS AT NATO DAYS 2022!

ERA SYSTEM IN BHUTAN HAS GONE OPERATIONAL

THE ERA SURVEILLANCE ADS-B SYSTEM, MONITORING AIR TRAFFIC OVER THE KINGDOM OF BHUTAN, HAS RECENTLY GONE OPERATIONAL. THE LAST ROUND OF TESTS CALLED SAT (SITE ACCEPTANCE TEST) CONFIRMED THAT THE ENTIRE SYSTEM CAN OPERATE AT PEAK PERFORMANCE.

ERA delivered a network of ADS-B stations as a Wide Area Surveillance solution covering almost the entire airspace of the mountainous country of Bhutan and partly as the Air Traffic Control solution for all four of the important Bhutan airports: Paro, Bumthang, Gelephu, Yonphula. Despite the problems caused by the difficult Covid-19 situation, the project was completed in 15 months from the assignment of the contract between the Czech company and Bhutan´s Ministry of Information & Communications. One of the priorities of the Bhutan ATM authorities has been to cover a major part of their air space (roughly half of it) and obtain control of air traffic in TMAs of these airports including the Paro International Airport serving the capital Thimphu.

"The package of services in the ERA - Bhutan project includes assistance in the redesign of Bhutan´s airspace to suit the new capabilities, the materials to support operational deployment and extensive technical and operational training," stated Karma Wangchuk, Director General of Department of Air Transport of Paro Airport.

The ground stations of the system are installed as high as 2,500 – 4,100 metres above sea level. ERA utilized its experience in the deployment of a similar surveillance system in Nepal in 2019.

The ERA´s mission-proved surveillance sensors have minimal requirements for power and network connectivity and are designed to be essentially maintenance-free. Due to their resistance to extreme weather conditions, such as low temperatures, wind and freeze, the system proves to be a perfect fit for the project in Bhutan.

ERA HAS PASSED THE TESTS FOR ITS ADS-B SYSTEM IN FIJI

ERA has successfully passed the Site Acceptance Test (SAT) and thus completed the installation of a new ADS-B system covering the Domestic Airspace of the Republic of Fiji. The Czech system will help to ensure the safety of air traffic in a country on the exact opposite side of the Globe.

Fiji Airports was pleased with the results of the SAT procedure and the project realization time. The contract was assigned in September 2019 and since then, the ERA system based on ADS-B technology has completely replaced the existing system that was deployed on the Fiji main island Viti Levu in 2008.

One of the priorities for Fiji Airports was to cover the entire Domestic Airspace with up-to-date technology to provide end-to-end surveillance coverage to all the outer islands. Fiji required a reliable solution that would be able to endure the typical humid climate and be resistant against the corrosion of the salty air environment prevailing in the area for most of the year.

The installation of the ADS-B system complements the brand-new ATM system that Fiji has recently introduced. "Fiji Airports is well placed to introduce Surveillance Control using ADS-B in the Fiji Domestic Airspace with the installation of the new ADS-B ground stations," stated Hasmukh Patel, Fiji Airports Board Chairman.

The project consists of 10 ADS-B ground stations and one Central Processing Station, using solo ADS-B technology, which is predominant in the Asia Pacific region including Fiji's close neighbour New Zealand. ADS-B equipped aircrafts broadcast their GNSS positions, once per second, and the information is then used by the ATM System.

"ERA strongly believes that the choice of its system for such a challenging project will contribute to the safety and efficiency of air traffic in the Fiji Airspace," stated Ondřej Chlost, ERA CEO.

ERA EXHIBITED AT VIETNAM INTERNATIONAL DEFENSE EXPO

Vietnam kicked off its first international exhibition of defence equipment in December. The Vietnam International Defense Expo 2022 (VIDEX) was held at Gia Lam Airport, a military airstrip in Vietnam's capital Hanoi, hosted by the country's defence ministry. ERA presented within VIDEX its Passive Surveillance Solutions such as Passive ESM Tracker VERA-NG and Passive Over the Horizon Direction Finder PLESS. The company experts introduced the ERA portfolio to a number of visitors at the joint exhibition stand of ERA, its parent company OMNIPOL, other subsidiaries MESIT and Aircraft Industries and the partner Aero Vodochody.

The exhibition took place in Hanoi from 8 - 10 December 2022 with about 170 exhibitors from 30 countries. According to the organizers' official statement, "the aim of the expo is to strengthen and expand international cooperation and diplomacy on national defence, building trust between Vietnam and other countries. It is also expected to diversify the channels for procurement, technology acquisition and transfer of equipment production and logistics for the requirements of the armed forces." The Vietnamese government plans to run the event every two years.

FINAL MILESTONE FOR ERA SURFACE MONITORING SYSTEM INSTALLED AT LEIPZIG AIRPORT IN GERMANY

ERA HAS DELIVERED ITS NEO SURFACE GUIDANCE SYSTEM AS PART OF A-SMGCS AT THE LEIPZIG/HALLE INTERNATIONAL AIRPORT.

ERA Company, renowned in Germany as a reliable supplier of multilateration solutions, was awarded the contract in 2019, assigned by DFS, the German ANSP. ERA has installed a net of ground stations as a modern surface surveillance solution for the Leipzig airport control centre and supplied several SQUID squitter beacons as a vehicle tracking system to make the traffic in the airport area even safer. The system has gone operational in Q2/2022 after the procedure of Site Acceptance Tests (SAT).

The delivery of the Leipzig system is the last phase of a larger project to supply four German airports with multilateration technology. There are similar systems already in use in Dusseldorf, Stuttgart and Cologne. ERA delivered once more its NEO by ERA multi-sensor surveillance system (MSS) – the fourth generation of the certified composite solution of multilateration with ADS-B functionality.

The airport in Leipzig, officially Leipzig/Halle Airport, is an international airport located in Schkeuditz, Saxony, Germany and serves both cities: Leipzig and Halle. Leipzig airport is the second most important airport in Germany (the fifth in Europe) in terms of the amount of cargo traffic; all the masks, tests, etc. imported to the Central Europe from China during the covid time passed through its gates. The airport's cool look also served as the location to take shots for the highly popular "hero movie" Avengers.

ERA PASSIVE SYSTEMS AS PART OF NATO DAYS SECURITY SHOW AT OSTRAVA AIRPORT

IN SEPTEMBER ERA PRESENTED ITS PASSIVE SURVEILLANCE AND RECONNAISSANCE SYSTEMS VERA-NG AND PLESS AT THE LARGEST SECURITY SHOW IN EUROPE, THE NATO DAYS & CZECH AIR FORCE DAYS HELD AT THE LEOS JANACEK INTERNATIONAL AIRPORT IN OSTRAVA.

ERA exhibited in one ground-box along with its parent company OMNIPOL and other subsidiaries (MESIT, Aircraft Industries) and the partner companies Aero Vodochody a Rhode & Schwarz. ERA also demonstrated the abilities of the passive radiolocation systems operated by ERA professionals, who were tracking targets and providing their positional data. The results of the surveillance were displayed on screens at the ERA outdoor chalet and commented on by Electronic Warfare experts.

The VIP guests included the Prime Minister Petr Fiala, the Speaker of the Chamber of Deputies of Parliament of the Czech Republic Markéta Pekarová Adamová and the Chief of the General Staff of the Czech Armed Forces, Major General Karel Řehka.

The aim of the event was to consequently present the wide spectrum of resources and capabilities of the Czech Republic and its allies in the field of security provision to the general public. Participants from 19 partner countries exhibited their up-to-date technologies to 110 thousand visitors over two days. The programme consisted of the presentation of heavy military hardware, police and rescue equipment, dynamic displays of Special Forces' training, flying displays and presentations of the armaments.

ERA ON THE CZECH BUSINESS MISSION TO MONGOLIA

ERA participated in the business mission of the Czech Chamber of Commerce to Mongolia. Several Czech companies held B2B meetings in the capital Ulaanbaatar and the regional city of Genghis. ERA was represented by business manager Jan Žemlička, who led the negotiations with the Mongolian Civil Aviation Authority (MCAA) and the representatives of the Air Force and the frontier guards.

ERA is a well-known partner in Mongolia: the company has installed its NEO multilateration system at NUBIA (New Ulaanbaatar International Airport) in 2017 to provide surface monitoring of the aircraft as well as vehicles, and thus increase the safety of ground surveillance. NUBIA is a modern air traffic hub which serves the Mongolian capital as second airport after older Genghis Khan Airport.

ERA PARTICIPATED IN EW LIVE CONFERENCE IN ESTONIA

Just right after the event NATO DAYS ERA participated in EW Live conference, held in Estonia on 19 – 22 September 2022.

The topic of this year was "Renaissance of Land-Based Electronic Warfare" (EW). ERA experts contributed to fruitful discussions benefiting from the fact ERA has the proven land-based passive ESM trackers (VERA-NG I PLESS) and related EW software tools and systems in its product portfolio.

THE ASSOCIATION OF OLD CROWS HAS ESTABLISHED A BOHEMIAN CHAPTER

THE NATIONAL CHAPTER OF THE ASSOCIATION OF OLD CROWS (AOC) WAS RECENTLY ESTABLISHED IN THE CZECH REPUBLIC. ITS FIRST MEETING WAS HELD AS PART OF THE VETERAN'S DAY CELEBRATION, ORGANIZED BY ERA.

The celebration of Veteran's Day on November 11, 2022 under the wing of Crows is closely connected with ERA due to its topic. It focused on Passive Sensing Technology, which has a historical tradition of invention in Czechia. The Passive Surveillance Systems, an useful tool for Electronic Warfare, were developed in the company Tesla in the Czech city of Pardubice. The systems are currently produced and further enhanced in its successor company ERA in its HQ still located there.

The intention of the celebratory event, intentionally entitled Passive Veteran's Day was to invite active as well as retired specialists in the area of passive surveillance and reconnaissance under one roof. The participants had an opportunity to talk not only about the history of several generations of passive sensors (including the legendary Tamara and the current ERA product VERA-NG) but mainly about their future in the field of Electronic Warfare (EW).

This is the impetus behind the main reason for the meeting taking place under the umbrella of the newly established AOC Bohemian chapter, which provides a chance for Czech EW experts to be part of the EW specialist community across the globe.

ON AOC

AOC was founded in 1964, and with over 13,000 members internationally, is a not-for-profit organization for individuals who have common interests in Electronic Warfare (EW), Electromagnetic Spectrum Management Operations (EMSO), Cyber Electromagnetic Activities (CEMA), Information Operations (IO), and other information related capabilities.

ERA EXHIBITED AT THE INDO DEFENCE FAIR IN JAKARTA

The Indo Defence EXPO & FORUM, Indonesia's Tri-Service Defence exhibition, took place in Jakarta on 1 – 4 November 2022. ERA introduced its passive surveillance systems VERA-NG and PLESS to a number of distinguished visitors including officials of the Indonesian Army and Air Force. 15 Czech companies presented their portfolio at the quite busy stand of the Czech Republic organized by CzechTrade. They were further supported by the Deputy Minister of Defence Daniel Blažkovec and His Excellence the Ambassador of the Czech Republic to Indonesia Jaroslav Doleček and the military attaché, Brigadier General Petr Tománek.

ERA STRENGTHENED ITS POSITION IN SOUTH ASIA AT DEFENSE AND SECURITY 2022 IN THAILAND

ERA participated in Defense and Security 2022, the Tri-service Asian defence & security exhibition, conference and networking event. The exhibition was held in IMPACT Exhibition and Convention Centre, Muang Thong Thani, in Bangkok, Thailand, in teh end of August.

ERA representatives use this opportunity to strengthen the company's market position in this part of the world and held numerous meetings with current and potential partners. ERA is a well-known supplier of technologies in this region, its systems for Air Traffic Management have been in use in Indonesia, Malaysia and Singapore.

Defense & Security has been an important biennial in ASEAN territory for 20 years. This year of exhibition consisted of 30 national pavilions and attracted 550+ exhibitors, world-leading military and internal security manufacturers, and 20,000 professionals from 65 countries.

ERA DATA MINING TOOL: SIGNAL ANALYSIS WITH NO MERCY

THE EW-EDMT (ELECTRONIC WARFARE ERA DATA MINING TOOL) IS AN APPLICATION USED FOR COMPREHENSIVE MANAGEMENT AND POST-MISSION ANALYSIS OF DATA COLLECTED DURING THE ESM/ELINT PLATFORMS OPERATIONS.

EW-EDMT works with all kinds of incoming data from VERA-NG and other ESM systems and it allows users to import, convert, process, filter, identify and store them.

The purpose is to extract as much information from collected data as possible and determine targets' identification such as platform, emitter and emitter mode.

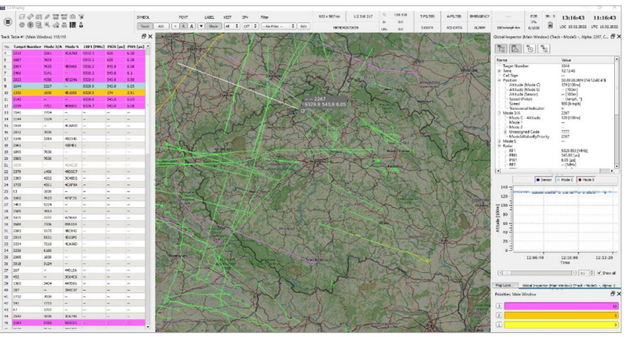
The aim of post-mission analysis is to build and expand reference database (DB) to improve target identification and therefore increase automation of the platforms.

KEY FEATURES:

- Capable to integrate and evaluate data from various ESM/ELINT platforms within unified working environment
- Supports building and maintenance of National Reference Database
- Enables the customers to adhere to intelligence cycle principles
- Utilization of recorded and valuable data
- Input data comparison with the reference DB (Signal, Mode S, AIS).
- Tactical data presentation in the map
- Interconnection of corresponding data - e.g. UFE - Primary data, Signal Pattern - Primary data

LOCAL AREA PICTURE DISPLAY: PRESENTATION OF TARGETS ON THE MAP BACKGROUND

LAPDIS (Local Area Picture Display) application is designed for the presentation of target data provided by surveillance sensors on a map background. LAPDIS is used by VERA-NG operator for situational awareness for activity of targets in the Area of Responsibility or by the maintenance engineer of the Multilateration Surveillance System for checking of its performance.



LAPDIS: Main Map Window together with track table, track inspector and priorities panel

Application automatically highlights priority targets based on predefined filters to increase operator´s awareness. On this basis the operator creates spot reports and exports their history to cooperating or superordinate units. The application is also beneficial to postmission analysis of obtained data.

KEY FEATURES:

- Targets presented in the map and track tables
- Track Inspector presenting detailed info about selected targets
- User configurable track filters
- Highlights of target priorities
- Support of ESM DB, Mode S DB, AIS DB
- Manual/semi-automatic/automatic data export
- Dedicated offline window for data replays integrated (post-mission analysis)

LIFE OF ERA COMMUNITY IN PHOTOS

ERA subsidiary R-SYS organized the conference on the current usage and future of UAS „Drontex".

ERA repeatedly subsidizes an event Philanthropy Day, a platform serving to non-profit organizations to establish partnerships with commercial sector and local companies and institutions.

ERA performed as one of the speakers to EUMAAC conference organized by the Czech Military Aviation Authority.

ERA Commercial Director presented at the conference „Anticipated course of aerospace and defence industry".

ERA was invited to a reception at the Czech Embassy in Stockholm to celebrate the National Day of 28 October and the Czech Presidency of the European Union.

ERA obtained the award as a warm thanks for its contribution to the projects of a school for children with special teaching needs.

ERA hosted the Commander of the Air Force of Gabon and two representatives of the Air Force of Togo to introduce them to the passive surveillance systems.

ERA IN NEWS


ERA passed Factory Acceptance Tests for enhanced MLAT system in Budapest

Company ERA Company
Date 18.08.2022

ERA announced that it had successfully passed Factory Acceptance Tests for the multilateration surface system NEO which is to be used at Ferenc Liszt International Airport in the Hungarian capital Budapest.

ERA, in cooperation with HungaroControl's IT experts, is preparing to install a multilateration system for the largest of the country's four commercial airports, formerly known as Budapest Ferihegy Airport. The high quality and reliability of ERA's NEO multi-sensor surveillance system has been verified and confirmed during the Factory Acceptance Tests in the beginning of June. The SAT tests for 5 days and all the tested items were unconditionally accepted by the customer HungaroControl, the Hungarian ANS. FAT tests took place at the ERA premises in Pardubice. 3 representatives of the client were present as part of the process.

As Mr Zoltán Baló, leader of this project, officially stated: "HungaroControl believes that the choice of ERA for enhancing its MLAT system will contribute to ensuring a robust solution for the entire A-SMGCS system as an important part of a 'smart' main project, considering the need for realigning this system with other technologies."

NEO system is a replacement for the older generation of ERA system MSS (Multilateration Surveillance System). The extension and modernization are supposed to enhance the coverage of key parts of the critical airport's area. It is intended for surface surveillance of the aircraft as well as vehicles, equipped by SSR transponder for the end-user – Ferenc Liszt International Airport.

The tried and tested product NEO represents a modern, flexible and certified multi solution surveillance system with multilateration and ADS-B capability. NEO systems have been in use at major international airports such as: Beijing Daxing, Beijing Capital, Pudong Shanghai, Jeju South Korea and many other hubs of air transportation.


2 International atm

We Anticipate Significant Demand for Our Technologies

The name ERA from Pardubice, Czech Republic is nowadays inseparably linked with passive surveillance and reconnaissance systems for military or civilian use. Their products have found their way to practically all corners of the world. About eight months ago, Ondřej Chlost, MBA, became ERA's new Managing Director and we asked him several questions about the latest developments and future directions of the company.

You have been Managing Director for less than a year, but despite that, please try to make an initial assessment of this period, also in terms of your previous tenure at the company.

My first six months as a managing director were marked by changes and adjustments in company processes. The period of covid brought significant transitions in the business environment and way of working. At the same time, with the downturn in air travel, and growing tensions in various regions of the world, new challenges have emerged that need to be addressed and adapted for. For these reasons, one of the main challenges is to improve the company's development capabilities.

I have worked in ERA for almost 25 years, so I understand the capabilities and potential, which is an advantage. For most of my previous career, I was involved in building the company's sales channels, so I also understand the wishes and requirements of customers in our sectors. I am now looking to use this experience in my current position.

Can you briefly summarize the situation last year and the outlook for the upcoming period?

The second year of the pandemic had an undeniable impact on ERA's results. We are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NEWS

30th Septembes 2022

The ERA surveillance ADS-B system, monitoring air traffic over the Kingdom of Bhutan, has recently gone operational. Despite the problems caused by the difficult COvid-19 situation, the project was completed in 15 months from the assignment of the contract between the Czech company and Bhutan's Ministry of Information & Communications. The last round of tests called SAT (Site Acceptance test) confirmed that the entire system can operate at peak performance.

ERA delivered a network of seven ADS-B stations as a Wide Area Surveillance solution covering almost the entire airspace of the mountainous country of Bhutan and partly as the Air Traffic Control solution for 4I four of the important Bhutan airports: Paro, Bumthang, Gelephu, Yonphula. One of the priorities of the Bhutan ATM authorities has been to cover a major part of their air space (roughly half of it) and obtain control of air traffic in TMAs of these airports including the Paro International Airport serving the capital Thimphu.


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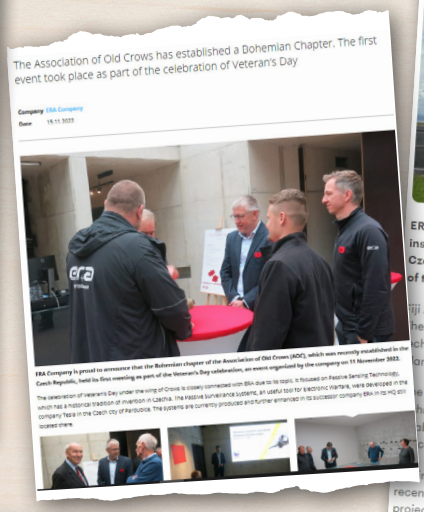
ERA surface monitoring system installed at Leipzig airport, Germany, has gone operational

Tuesday, September 6, 2022 12:00 AM - Pardubice, Czech Republic.

ERA announced having passed another milestone to meet the contract to deliver its NEO surface guidance system as part of A-SMGCS at the Leipzig/Halle international airport. The system has gone operational in Q2/2022 after the procedure of Site Acceptance Tests (SAT).

ERA Company, renowned in Germany as a reliable supplier of multilateration solutions, was awarded the contract in 2019 and assigned by DFS, the German ANSP. The realization was slightly postponed due to the pandemic situation and the project has experienced a number of difficulties caused by the covid restrictions. ERA has installed a net of ground stations as a modern surface surveillance solution for the Leipzig airport control centre and supplied several SQUID squitter beacons as a vehicle tracking system to make the traffic in the airport area even safer.


The Association of Old Crows has established a Bohemian Chapter. The first event took place as part of the celebration of Veteran's Day

Company ERA Company
Date 16.11.2022

ERA Company is proud to announce that the Bohemian chapter of the Association of Old Crows (AOC), which was recently established in the Czech Republic, held its first meeting as part of the Veteran's Day celebration, an event organized by the company on 11 November 2022.

The celebration of Veteran's Day under the wing of Crows is closely connected with ERA due to its topic. It focuses on Passive Sensing Technology, which has a historical tradition of invention in Czechia. The massive surveillance systems, an useful tool for electronic warfare, were developed in the company Tesla in the Czech city of Pardubice. The systems are currently produced and further enhanced in its successor company ERA in its HQ also located there.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ERA has installed and passed the SAT for its ADS-B system in Fiji

Thursday, July 21, 2022 10:47 AM - Pardubice, Cech Republic.

ERA has successfully passed the Site Acceptance Test (SAT) and thus completed the installation of a new ADS-B system covering the Domestic Airspace of the Republic of Fiji. The Czech system will help to ensure the safety of air traffic in a country on the exact opposite side of the Globe.

Fiji Airports was pleased with the results of the SAT procedure and the project realization time. The contract was assigned in September 2019 and since then, the ERA system based on ADS-B technology has completely replaced the existing system that was deployed on the Fiji main and Viti Levu in 2008, with the aim of helping ensure air traffic safety in the area.

One of the priorities for Fiji Airports was to cover the entire Domestic Airspace with up-to-date technology to provide end-to-end surveillance coverage to all the outer islands. Fiji required a reliable solution that would be able to endure the typical humid climate and be resistant against the corrosion of the salty air environment prevailing in the area for most of the year.

The installation of the ADS-B system by ERA complements the brand-new ATM system that Fiji has recently introduced. "ERA strongly believes that the choice of its system for such a challenging project will contribute to the safety and efficiency of air traffic in the Fiji Domestic Airspace," stated Ondřej Chlost, ERA Managing Director.

ABOUT ERA:

ERA (a member of OMNIPOL group) is a leading company in multilateration, multistatic surveillance, and reconnaissance technology. Unrivalled experience in passive surveillance sensor development provides ERA with unique know-how to deliver comprehensive solutions for global markets. We develop, manufacture and implement mission-critical systems for military and civil purposes.

ERA made air traffic control history when deploying the first multilateration system and introducing gate-to-gate surveillance. ERA has brought to the world a novel passive medium range surveillance sensor category called Passive ESM Tracker (PET) for defence and electronic warfare purposes - which is today in its 5th generation known as VERA-NG - tailored for air, maritime and land target surveillance and reconnaissance. The company heritage and global experience in passive ESM/ELINT helped ERA introduce another category of the Over the Horizon Direction Finding (OTH DF) long-range sensor, in its 2nd generation known as PLESS.

The above-mentioned sensors make possible a broad ecosystem consisting of sensor performance prediction and evaluation tools and data mining tools together with a full virtual EW scene simulator to help military intelligence.

Over the last 3 decades, ERA has reached a number of more than 160 installations, deployed in over 67 countries on 5 continents with 24/7 operations fulfilling demanding customer requirements. More important, however, than the given number of references is the experience we have achieved and lessons learnt during implementation of our solutions. We intend to continue introducing new technologies to adapt to tomorrow's challenges.