

E-LETTER FOR PARTNERS OF ERA COMPANY

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ERANEWS

era



ERA strains to keep up with its projects despite of Covid-19



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ERA PROVIDES COMPLETE ADS-B COVERAGE IN FIJI

ERA HAS BEEN AWARDED A CONTRACT TO DELIVER AN ADS-B SYSTEM COVERING THE AIRSPACE OF THE REPUBLIC OF FIJI. THE CZECH SYSTEM WILL THUS ENSURE THE SAFETY OF AIR TRAFFIC ON THE EXACT OPPOSITE SIDE OF THE GLOBE.

One of the priorities of Fiji has been to cover the entire air space with up-to-date technology to provide surveillance coverage over all the Fiji Islands and the traffic en-route connecting them. The installation of ADS-B system by ERA is supposed to be one of the main parts of the brand new ATM system that Fiji plans to implement.

Fiji wants to increase the level of air traffic safety and requires a reliable, cost effective and robust solution that will be able to endure the typical humid climate and be resistant against corrosion of the salty air environment.

The contract was assigned by the local ANSP as a result of a provider selection process. The project is a replacement of the already existing WAM and ADS-B system by ERA deployed at Fiji main island Viti Levu, dated back to 2008.



The delivery consists of 10 brand new ADS-B stations and 1 central Processor, using solo ADS-B technology, which is predominant in this Asia Pacific region. Fiji thus follows the example of its closest neighbour New Zealand.

SILVER PROGRAMME FOR OMAN AIRPORTS MUSCAT AND SALALAH FROM ERA

The surface surveillance multilateration systems by ERA for Muscat and Salalah international airports in Oman went operational recently. Now the project has been completed with a portfolio of services and a comprehensive range of assurance offerings called MasterCare Silver (MC). MC is able to address the entire system including its HW, FW and SW to ensure ERA's

systems operate at peak performance.

ERA is subcontracting Indra Navia AS, the Norwegian subsidiary of global technology and consulting company Indra, who serves as the prime contractor for the entire ATM project for Oman. As part of this project, ERA installed two of its proven multi-sensor surveillance systems MSS consisting of nets of ground stations for Muscat and Salalah airports' surveillance and delivered 60 plus 30 SQUID squitter beacons for vehicle tracking. Both airport systems are designed with ERA's unique Centralised Timing system architecture, which is fully independent from external sources of time synchronisation and provides a high level of system accuracy.

As Jakub Thomas, the Head of Sales, officially stated: "With this project realisation, ERA has demonstrated its leading position in delivering multilateration systems worldwide while hugely increasing its presence on the Middle Eastern market as well."

MSS system has a number of compelling advantages. The actual sensors are compact, purely passive and have minimal requirements for power and network connectivity. The system is designed to be essentially maintenance-free and dust proof. Due to their resistance to extreme weather conditions, such as high temperatures and sandy storms, the systems prove to be a perfect fit for the project in Oman.



ERA CARRIES OUT AN EXTENSION OF ITS SURVEILLANCE SYSTEM FOR JAKARTA AIRPORT IN INDONESIA

THE CUSTOMER AIRNAV INDONESIA HAS PLACED ITS TRUST IN THE ERA MULTILATERATION SYSTEMS, ERA HAS RECENTLY SIGNED A CONTRACT TO EXTEND ITS MLAT SYSTEM WITH 12 NEW GROUND-BASED STATIONS FOR SURFACE GUIDANCE OF THE SOEKARNO-HATTA INTERNATIONAL AIRPORT IN INDONESIAN CAPITAL JAKARTA.

32 ERA multi-sensor surveillance (MSS) GS and 213 pieces of SQUID vehicle tracking units are currently in operation to ensure the safety of the busiest airport in Indonesia. Now the surveillance systems need upgrades in order to accommodate the air traffic in Indonesia's airspace, larger than the airspace in whole Europe.

The airport often struggles to accommodate all flights at its current limit of 81 aircraft movements per hour. The extended system will cover the new terminal including buildings and aprons, new East Cross TWY and cargo apron area - in connection to the third runway, which went operational last year. MSS provides the surveillance of aircraft required for advanced-surface movement guidance and control systems (A-SMGCS) to deliver safe and efficient operations.

Eight years ago, the Indonesian airport operator PT Angkasa Pura II awarded the programme for safety to ERA as prime contractor in cooperation with Austrian company Avibit for the A-SMGCS integrating the MSS by ERA network of sensors and SQUID by ERA

vehicle tracking units. The system has been in successful operation ever since. There are also several other ERA systems functioning in Indonesia, one of them in the city of Medan.



STUTTGART AIRPORT DEPLOYS 135 ERA SQUID VEHICLE TRACKING UNITS FOR SURFACE MANAGEMENT



Stuttgart Airport recently announced the selection of ERA company, the leading supplier of surveillance and ATM equipment worldwide, to deliver 135 vehicle-mounted SQUID transmitters as its surface vehicle tracking system. The contract was awarded to ERA thanks to good experience with the project of the ERA surface surveillance system NEO for Stuttgart airport, which has been currently installed.

The airport authority selected ERA squitter beacon SQUID system as the best performing vehicle location technology. ERA already has its technologies installed at several other airports in Germany; in Munich, Frankfurt, Hamburg, Nuremberg, Braunschweig, Köln, Bonn, Düsseldorf and Berlin.

ERA HAS REACHED ONE BILLION CROWNS IN REVENUE ONCE MORE IN 2019

The company reported revenues to a total amount of CZK 1,064,000 thousand (approx. € 40,000 thous.) and an accounting profit to an amount of CZK 332,500 thousand before taxes (€ 12,500 thous. ca) for the financial year 2019. The result is another remarkable achievement in the row of the similarly

successful years 2016, 2017 and 2018. "Thanks to our growing amount of contracts in the military and civil sector we have sold our systems to 66 countries in all. ERA has also continued the process of strengthening its market offerings with more complex ATM solutions," stated ERA Managing Director Viktor Sotona.

ERA ENHANCES ITS WAM SYSTEM FOR EAST MIDLANDS AIRPORT AREA

ERA'S WIDE AREA MULTILATERATION (WAM) SYSTEM AROUND EAST MIDLANDS INTERNATIONAL AIRPORT GOT UPGRADED. IN LIGHT OF THE COVID-19 SITUATION, PART OF THE USUAL PROCESSES HAVE BEEN HANDLED BY ERA FROM A DISTANCE.

The customer Manchester Airports Group Plc (MAG) approved the operations of the composite WAM and ADS-B system for the end user East Midlands International Airport Ltd (EMA) in 2008. ERA was awarded the contract for its upgrade in January 2020. The main purpose of the system is to provide Air Traffic Control services in the EMA terminal manoeuvring area, including surveillance of approaching aircraft in terms of their noise over inhabited areas. The data are sent to the involved authorities.

East Midlands Airport uses the Multi-Sensor Surveillance System by ERA (MSS) to increase air traffic safety as a complement to the



operational SSR. MSS EMA consists of the net of Ground Stations (six Receiving stations and two Transmitting stations), the current upgrade has replaced 6 (plus 2) processing modules D03 and 2 (plus 1) interrogating T02 due to implementation of the new software version. It has the ambition to become the full-fledged replacement of the current SSR if needed.

Considering the unprecedented situation with the Covid-19 pandemic, hence the border closure, the actual replacement of the modules was provided by EMA technicians with remote support by ERA experts for software implementation and calibration.

ERA HAS SIGNED A CONTRACT TO PROVIDE MAINTENANCE OF ITS SURVEILLANCE SYSTEM AT KUALA LUMPUR AIRPORT

ERA HAS BEEN AWARDED A CONTRACT TO PROVIDE ADVANCED "SYSTEM ASSURANCE SERVICES" OF ITS PREVIOUSLY INSTALLED MLAT SYSTEM AT KUALA LUMPUR INTERNATIONAL AIRPORT (KLIA) IN MALAYSIA. THE CONTRACT WAS ASSIGNED BY THE MALAYSIAN ANSP DEPARTMENT OF CIVIL AVIATION.



This package of the best services is entitled MasterCare Premium and is an integral part of the ERA product portfolio offered to all ERA customers. The actual contract is the second Mastercare order for KLIA after three years of duration of the previous one signed in 2017. ERA will cooperate on the system maintenance with the local company Puncak Teknologi.

The surface airport multilateration system at KLIA was installed in 2007, extended in 2012 and consists of 44 stations. There are also 200 SQUID squitter beacons for vehicle tracking in use at the airport. The MasterCare program maintains the safety of all systems with the following processes: obsolescence management, spares stock management, repair management, a tailored training program and on-site inspections and preventive maintenance including a 24/7 help desk and delivery of the new module within 30 days.

"By a first class level of maintaining our proven multilateration system we not only prolong its life-cycle, but also, I dare say, help to assure KLIA maintains its position among the safest and most important air traffic hubs in South-East Asia," stated Ondrej Jebalek, ERA Sales Manager.

MasterCare is a complete portfolio of services and a comprehensive range of assurance offerings that can be customized for each customer, deployment site and service level requirements. Malaysia is a tropical climate country and the surveillance system consequently faces numerous harsh weather challenges, it has to be completely redundant. ERA guarantees the prevention of any possible unpleasant complications as well as maintenance on a high technical level throughout the life cycle.

LIFE OF ERA COMMUNITY IN PHOTOS



The Czech basketball league stars played with children as part of ERA partnership with summer event Sportpark in ERA hometown.



ERA subsidized the awards for best photographers „Personality of Czech Photography”.



ERA experts stand out within University of Defence workshop on Electronic Warfare.



ERA supported historical military event Day in Czech History commemorating the end of WWII.



ERA helped to organize the student competition of technical skills Practical Electronics 2020.



ERA became a proud partner of local paralympics in athletic disciplines for handicapped adults and children. Several European champions and record holders were present.

NCIA HAS SELECTED ERA AS ONE OF THE WINNERS OF THE 2020 DEFENCE INNOVATION CHALLENGE

THE NATO COMMUNICATIONS AND INFORMATION AGENCY HAS RECENTLY ANNOUNCED THE THREE WINNERS OF ITS DEFENCE INNOVATION CHALLENGE, WITH ERIS BY ERA, THE ATC SYSTEM FOR REGIONAL AIRPORTS, AS ONE OF THEM.



The ERA co-winners are Aselsan, Turkey and Reticle Ventures Canada Incorporated, in partnership with Lemay.ai, Canada. They will all receive a small contract to take part in a pilot with the Agency. Each contract will be tailored to the winner's proposal.

The top eight qualifiers, who made the shortlist in October, were invited to a virtual innovation pitch session on 4-5 November 2020 as part of NITEC Connect, a virtual two-day conference event. The Innovation Challenge jury was composed of ca 1000 experts from throughout the Agency, from NATO Headquarters and from Nations. They evaluated the live pitches and selected the top finishers. NCIA will consequently work with the winners to take their innovation to the next level and test it in NATO scenarios.

The Defence Innovation Challenge (in its fifth year) aims to accelerate transformational, state-of-the-art ideas, technologies and solutions from start-ups, small businesses and academia in support of NATO. This year, it focused on improving distributed radar data processing so that NATO's air operations can tap into the latest technologies available in the defence sector and beyond.

ERIS SYSTEM HAS GONE OPERATIONAL IN EVALUATION REGIME AT OSTRAVA AIRPORT

THE ERIS-A ATC SYSTEM WAS INTRODUCED BY ERA COMPANY INTO TEST OPERATIONS AT LEOŠ JANÁČEK INTERNATIONAL AIRPORT IN OSTRAVA, CZECH REPUBLIC. THE SYSTEM INCREASES OPERATIONAL SAFETY – IT MONITORS POTENTIAL COLLISION RISKS AND AUTOMATICALLY GENERATES AN ALERT.

The system uses the surveillance data from live operation of targets (both vehicles and aircraft) at the airport and in its vicinity, merges data from various sensors (multilateration, ADS-B, EHF airport radars, TAR), displays the surveillance and operational data to the air traffic controllers and allows for issuing of movement clearances electronically.

Additionally, all data and operator's actions are recorded for future playback and analysis. Innovative use of data from four EHF FMCW radars, installed at Ostrava Airport primarily for the purposes of security and safety, brings a significant benefit: using this primary information, there is no need to purchase the quite expensive Surface Movement Radar.

The system was installed, commissioned, calibrated and tested by ERA engineers in accordance with the international standard ED-87. The functions and benefits of ERIS-A have been currently introduced to the Czech ANSP, Ostrava Airport, Civil Aviation Authority, Prague Airport and in the future also to potential customers from

abroad. ERIS-A is about to successfully fulfil its ambition of providing a comprehensive ATC solution for both regional airports and international airports as A-SMGCS system level 1 & 2.



CZECH MOD CAST ERA IN ITS PROMOSERIES

The Ministry of Defence of the Czech Republic in cooperation with major Czech defence companies prepared a new industry supporting campaign "Country for the Future" with the motto "We Know What We Have". Top products "Made in Czechia" and their producers from the defence and security field star in a series of promo videos. ERA company, in a short Star Wars like sketch, introduces its state-of-the-art passive surveillance system VERA-NG to the general public.

The main goal of the nine episodes campaign is to enlighten watchers by describing in a humorous way the best of Czech technologies produced for and used by the armed forces. Among the successful producers and exporters are: ERA, EGO Zlín, Aero Vodochody, Tatra Trucks, Meopta, Ray Service, Sellier & Bellot, PBS and Česká zbrojovka.

The Ministry publishes the videos on its social networks and they are also streamed by Czech mainstream media and military fans. "It is a pilot campaign to support our industry and we are proud to be part of it. We love the video on ERA, especially the Jedi bit. It describes perfectly our 'green jewellery' and it's fun", Ondřej Chlost, ERA commercial director, commented on the series.

The video-clips should be screened as part of the international



The documentary's star Tomáš Kopečný, Deputy Minister for Industrial Cooperation, serves as a tour guide in the companies' facilities to explain their portfolio. Watch: youtube.com/watch?v=6C66K2weVV8.

exhibitions and trade fairs to promote the Czech defence and security industry abroad. Czech embassies worldwide will use them to demonstrate the capabilities of the Czech Army to foreign partners.

ADECS 2020: ERA EXHIBITED ITS PASSIVE RADAR & ELECTRONIC SUPPORT MEASURE SYSTEM VERA-NG



ERA exhibited its PET VERA-NG during the Association of Old Crows Electronic Warfare Asia conference and exhibition being held at Marina Bay Sands, Singapore.

Vera-NG uses advanced techniques to conduct cross-border long-term and long-range surveillance without alerting neighbouring nations. The system is tailored for air, maritime and land target surveillance and reconnaissance for defence and electronic warfare purposes.

The combined format of ADECS attracted expanding number of exhibitors and visitors from 40 countries.

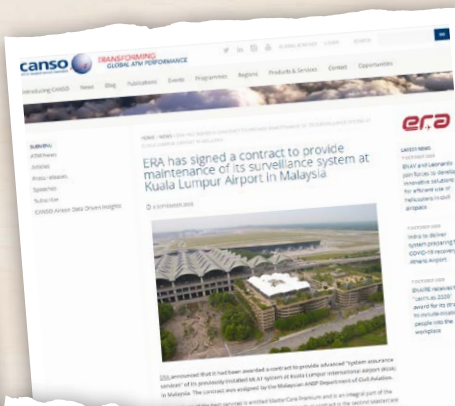
ERA ATTENDED NATO DAYS AIR-SHOW

ERA attended the NATO Days 2020, held at Leoš Janáček Airport in Ostrava on 19 – 20 September. Due to the Covid-19 situation, the event was only held for VIP guests excluding the general public and streamed live on Czech TV.

ERA exhibited its technologies, namely Passive ESM Tracker VERA-NG, and ERIS, the new ATM and ATC system for medium-sized and regional airports. There was also the live demo of all the systems on screens. Among the politicians and industry representatives visiting the ERA stand were the Czech Prime Minister Andrej Babiš, the Minister of Defence Lubomír Metnar, the Minister of the Interior Jan Hamáček and the Minister of Foreign Affairs Tomáš Petříček.



ERA IN NEWS



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ABOUT ERA:

ERA is a leading company in multilateration, multistatic surveillance, and reconnaissance technology. We develop, manufacture and implement mission-critical systems for military and civil purposes. Over last 2 decades, ERA has reached number of more than 130 installations, deployed in 65 countries on 5 continents with 24/7 operations fulfilling demanding customer requirements.

ERA has developed unique passive surveillance system VERA-NG tailored for air, maritime and land target surveillance and reconnaissance for defence and electronic warfare purposes. In parallel, ERA made air traffic control history when deploying the first multilateration system and introducing gate-to-gate surveillance.



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