

E-LETTER FOR PARTNERS OF ERA COMPANY

10 FEBRUARY 2018



ADECS - ERA participated in EW conference in Singapore

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Introducing
IXO system, the
handy tool for
flight planning

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ERA presented DPET VERA in NATO HQ in Brussels

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SILVER ERA IN THE COMPANY OF THE YEAR COMPETITION



n a broad competition involving 3,600 companies, ERA scored second best in the final. They were one of the 14 regional finalists after winning the title Company of the Year in its own region. The winner was the company Frentech Aerospace from Brno producing precise components for satellites. As the Managing director Viktor Sotona pointed out at the award ceremony in Prague: "ERA is a producer of air traffic management technologies, so it sounds logical it was only defeated by a company producing equipment used in the cosmos."

The silver medal crowned a remarkable year of public recognition for ERA. The com-

pany received several other awards: The Most Successful Company of the Pardubice Region, The 100 Top Stable Companies of the Czech Republic, The Corporate Responsibility Award and The Building of the Year for its new headquarters.

The Company of the Year competition and the related Tradesman of the Year are organized by the Czech main daily, the newspaper Hospodářské noviny (Economic News) and supported by the mobile operator Vodafone and the country's oldest bank Česká spořitelna. The companies have to be nominated by local authorities, ERA was nominated by the trade and investment agency CzechInvest.

ERA HAS EXHIBITED AT DSEI 2017 IN LONDON



RA in collaboration with its parent company OMNIPOL have attended the trade fair Defence and Security Equipment International (DSEI) 2017, the world's leading defence & security event, held at the London ExCeL exhibition centre in London, UK.

ERA has presented its VERA-NG passive surveillance system, which is a state-of-the-art technology providing a unique combination of real time high accurate 3D positioning of airborne and naval targets as well as ELINT capability representing emitters' reconnaissance.

ERA has introduced key challenges at the event in current air defence and passive technology with the use of their product VERA-NG which address these aspects. Apart from significant interest in the technology from potential customers and partners, the exhibition confirmed the increasing interest in passive surveillance systems generally.

ERA'S COMEBACK TO BEIJING - NEW AIRPORT DAXING

ERA won the international tender and will supply and install its surveillance system at the "meant to be largest" airport in the world in Beijing.

The brand new airport is located in the Beijing southern quarter of Daxing and due to go operational in 2019. It is supposed



to have six runways and a capacity of 130 million passengers per year. ERA has been

selected by Chinese CAA as a well-established partner with an excellent reputation. ERA systems prepared the capital for the 2008 Olympics a decade ago.

ERA installed its tried and tested multi--sensor system for surface surveillance and parallel runway monitoring at Beijing Capital International Airport in 2007 and remarkably increased the airport's throughput and safety for the thousands of visitors of the summer 2008 Olympics. > PAGE 2

ERA DELIVERS ITS WAM SYSTEM TO COVER OSH AIRPORT IN KYRGYZSTAN

ERA delivers a WAM system covering the TMA of Osh International Airport and two main flight corridors en-route towards the borders with Kyrgyzstan's neighbours, namely Russia, direction Moscow.



A TEAM OF ERA EXPERTS CARRIED OUT A SITE SURVEY AND HAS CHOSEN PROPER LOCATIONS.

RA will provide Air Traffic Control solutions based on its tried and tested NEO multi-sensor surveillance system. The contract was assigned by the local ANSP Kyrkgyzaeronavigatsia as a result of a tendering procedure. It aims to replace their out-of-lifecycle Secondary Surveillance

Radar which would not have provided the benefits of next-generation technology such as multilateration. ERA as the primary contractor in co-operation with the local company Asiainfo delivers a composite solution of multilateration and ADS-B. The actual WAM installation will consist of nine ground stations with the expectation of an extension of an additional nine GS in the nearest future.

"ERA's experience in the deployment of WAM solutions in areas with difficult terrain and harsh climate according the references from other ANSPs in the post-Soviet region was also one of the key factors in selecting them for this project", stated Zhakypbaev Mamatnazar, the Deputy to the Director General of Kyrkgyzaeronavigatsia.

Due to the mountainous terrain in the country, five of the ground stations will be located in an area about 2,900 metres above sea level. The high quality and reliability of ERA's NEO system has been verified and confirmed during the Factory Acceptance Tests in the end of November.

Osh International Airport is an airport serving the city of Osh, the second largest city in Kyrgyzstan after the capital Bishkek, located in the Fergana Valley in the south of the country. It is the oldest city in the country (estimated to be more than 3,000 years old), and supposedly one of the oldest settlements in Central Asia. Osh airport has experienced an immense increase in traffic over the last decade which has inspired the need to replace the already used SSRs in order to mitigate the risk of runway incursions and other ground traffic related incidents.

The landlocked and mountainous Kyrgyz Republic is bordered by Kazakhstan to the north, Uzbekistan to the west and southwest, Tajikistan to the southwest and China to the east (there are ERA systems deployed in Tajikistan and China as well). Kyrgyzstan's recorded history spans over 2,000 years. Although geographically isolated by its highly mountainous terrain, which has helped preserve its ancient culture, Kyrgyzstan has been at the crossroads of several great civilizations as part of the so-called Silk Road.

COMEBACK TO BEIJING. ERA HAS SIGNED A CONTRACT FOR THE WORLD'S LARGEST AIRPORT

CONTINUED FROM PAGE 1:

Over the following years, ERA delivered three more systems to Chinese airports in Shanghai, Changsha and Zhengzhou. The fifth project in a row is the brand new airport Daxing - the Chinese government's infrastructure priority. It is supposed to open in October 2019 as part of the official celebrations for the 70th anniversary of the founding of the People's Republic of China.

"I consider it an immense success for our company. ERA proved to be a reliable partner delivering, always up-to-date, technologies and thus Chinese CAA put its trust in us once more. On a personal level I feel special about the projects in China as important milestones in my own career. I was responsible for the Olympics project as sales manager and now I am back in Beijing signing an even more cha-



llenging contract in the role of ERA CEO," stated Viktor Sotona.

Beijing is home to the Beijing Capital International Airport which has rapidly ascended in the rankings of the world's busiest airports over the past decade. It has become the busiest airport in Asia in terms of passenger traffic and total traffic movement, and the second busiest airport in the world only after Atlanta airport, U.S.

Although the large increase could not be met by improvements alone, so as to accommodate the growing traffic volume, Chinese ANSPs have emphasized the need to add the enormous new airport in Daxing. Its capacity of 130 million passengers a year is based on the 10 percentage rate of the Chinese population which is currently 1.4 billion.

To help the make the future traffic movement flawless, ERA will deliver its NEO by ERA multi-sensor surveillance system consisting of 47 ground stations. The fourth generation of the certified mature system MSS is a composite solution of multilateration and ADS-B, has a robust system design, enhanced signal detection, reduced power consumption and is international standards compliant, with an added special certification for China recently obtained.



ERA HAS COMPLETED THE EXTENSION OF ITS SYSTEM AT CAIRO AIRPORT, EGYPT

The Egyptian National Air Navigation Service Company (NANSC) has placed its trust in ERA again. ERA installed its surface guidance system at the Cairo International Airport. Currently 37 ERA MSS ground-based stations and 19 pieces of SQUID vehicle tracking units are in operation there to ensure the safety of the important hub in Middle East North Africa region.





Five years ago, Cairo airport awarded the programme for safety to Holland Institute of Traffic Technology, HITT (since 2012 HITT is owned by defence and security company Saab), as the prime contractor for the Advanced Surface Movement Guidance and Control System (A-SMGCS) integrating with the ERA network of MSS sensors and SQUID by ERA vehicle tracking units after an international tender. Recently the system has undergone the extension by ERA, again together with Saab as a Prime contractor. The system is in successful operations from 2011.

The project was originally initiated as a result of Cairo international Airport's rapid growth and the inability of controllers to maintain complete visual surveillance across the entire airport surface.

The airport's mission has been aimed at becoming a passenger and cargo hub for the Middle East North Africa region (MENA). In order to enhance the safe and expeditious flow of traffic at the airport, NANSC ordered an A-SMGCS with a multilateration system which incorporates vehicle tracking. A-SMGCS solution implemented at Cairo airport was provided by HITT in co-operation with ERA and went operational in 2011.

Last year the extension of ERA's system was implemented, currently with 37 ground stations covering the approximately 37 square kilometres of the airport. There are also 19 SQUID vehicle tracking units by ERA functioning to support the surface traffic surveillance. A unique feature of this implementation is its reliance on a network of Motorola Canopy wireless links to convey positional data from ground stations to central processing using an encryption algorithm.

ON CAIRO AIRPORT

The Cairo International Airport (CAI) is the busiest airport in Egypt. It is located northeast of the city and is administered by the Egyptian Holding Company for Airports and Air Navigation. Cairo International is the second busiest airport in Africa after Tambo International Airport in Johannesburg, South Africa. The airport has three runways and four terminals, with the third (and largest) opening in 2009 and the Seasonal Flights Terminal opening in 2011.

ERA PRESENTED ITS SYSTEMS AT THE ELECTRONIC WARFARE **CONFERENCE ADECS 2018 IN SINGAPORE**



DECS 2018 took place in January 2018 Awith industry influencers, military officials and government delegations at Marina Bay Sands, Singapore for 2 days of exclusive content with four conferences: Undersea Defence Technology Asia, Military Training & Simulation Asia, Maritime Defence Asia and AOC Electronic Warfare (EW) Singapore

The combined format of ADECS launched for 2018 has allowed for expanding the number of exhibitors and visitors providing them with the opportunity to explore the entire exhibition across all themes. The exhibition hall showcased future defence capabilities, with 39 companies exhibiting in all.

ERA successfully presented its unique VERA-NG military passive surveillance system. Vera-NG uses advanced techniques to conduct cross-border long-term and long-range surveillance without alerting neighbouring nations. The system defines the new sensor category DPET (Deployable Passive ESM Tracker) tailored for air, maritime and land target surveillance and reconnaissance for defence and electronic warfare purposes.

Representatives from various parts of the world were interested in ERA solutions. Delegations from Indonesia, Singapore, United Arab Emirates, Malaysia, Germany, Hungary, France and Egypt visited the ERA booth.

Aleš Košťál, head of the strategy department, took part in the conference programme - lectures were focused on various key issues of the current global situation and defence technologies. Sales Manager Petr Burian had a number of meetings with ERA's business partners in this region.



IXO – THE FLIGHT AND DRONE ZONE PLANNER

Ever dreamed of plan instantly and manage easily your flights? ERA's subsidiary, Slovak company R-SYS invented complex solutions for RPAS users, IFR/VFR pilots and ANSP authorities - UTM system called IXO.



XO SYSTEM represents a complex solution for airspace users and providers who look for a product that seamlessly integrates information on manned and unmanned aircraft operations and provides real-time aeronautical information for all airspace users.

IXO SYSTEM presents a powerful and multiplatform solution which satisfies requirements

of ATM integrated and interoperable system while it emphasizes timely distribution of accurate aeronautical data. The system applies the latest regulations to flight planning, airspace usage conflict calculation, RPAS flight validation/clearance processing, manned/unmanned aircraft management, or aeronautical data provision

IXO SYSTEM MODULES:

IXO AIS

An aeronautical information service responsible for a timely flow of accurate information necessary for the safety, regularity and efficiency of air traffic. Specifically designed for FIC and other ANSP's working positions as operational data presenting tool.

IXO RPAS

Management of various aspects of RPAS/ UAV flights to plan drone zone easily, using dedicated mobile applications for iOS and Android. Including registration and obtaining a RPAS certificate based on the selected country regulations. System sends push notifications to all affected RPAS users if there is any change.

IXO ARO

Specifically designed for ATS Reporting Office (ARO/CARO) purposes for handling of flight plans and related information within IXO SYSTEM and its interfaces.

IXO NOF

Application aims to facilitate creating, editing and viewing of NOTAM messages, these being important sources of information on aerodrome and related ATM facilities.

IXO PILOT

Interactive flight planning and pre-flight briefing based on valid ANSPs and EAD data being at all times readily accessible from any location, facilitates self-briefing for VFR/IFR pilots.



KEY BENEFITS:

- Safe and reliable management of air traffic including RPAS flights
- Easy distribution of information via web interface to various users within and outside ANSP network
- Publication and update of AIP information
- Integrated flight planning information delivery to ARO
- Facilitation of the NOTAM Office daily operations, maintenance and exchange of NOTAM information
- Capability to manage flight plans and to create detailed Pre-flight Information Bulletins.



Developed by:





LIFE OF ERA COMMUNITY IN PHOTOS





ERA WAS AWARDED A HONOUR PRIZE FOR ITS CORPORATE RESPONSIBILITY PROGRAMME.

A TEAM OF EXPERTS FROM THE GERMAN AIR FORCE VISITED ERA PREMISES TO SEE THE PERFORMANCE OF VERA-NG SYSTEM.



THE COOPERATION BETWEEN ERA AND THE MAST PRUDUCER SMAG CONTINUES IN THE BEST TERMS..



SPEED SKATER KAROLINA ERBANOVA, WHOM ERA HAS SUPPORTED FOR SEVERAL YEARS, WON BRONZE MEDAL IN THE WINTER OLYMPICS 2018 IN PYEONGCHANG, SOUTH KOREA.



THE MAGAZINE REVIEW, OFFICIAL PLATFORM OF CZECH DEFENCE AND SECURITY INDUSTRY ASSOCIATION, LISTED ERA AS ONE OF THE MOST REMARKABLE COMPANIES IN 2017.

ERA WELCOMED TWO DIPLOMATS OF JA-PAN EMBASSY IN PRAGUE: HIS EXCELLEN-CE KAORU SHIMAZAKI ACCOMPANIED BY THE SECOND SECRETARY OF ECONOMIC SECTION TETSUYA MUNAKATA







ERA PLAYED MAIN ROLE IN ISR & EW CAPABILITIES DEVELOPMENT WORKSHOP IN HQ NATO IN BRUSSELS

ERA Company, in cooperation with the Czech Armed Forces and the Permanent Delegation of the Czech Republic to NATO, organized ISR & EW workshop in HQ NATO in Brussels, Belgium at the end of November 2017, with the participation of more than 70 guests. The workshop focused on one of the most important capabilities for modern warfare: Intelligence, Surveillance and Reconnaissance & Electronic Warfare (ISR&EW).



ISR & EW WORKSHOP ORGANIZING TEAM IN FRONT OF ERA STAND IN NATO HQ HALL.

The main aim of the event was to initiate discussion about challenges and possible approaches in favour of modern Joint Intelligence, Surveillance and Reconnaissance (JISR) activities between NATO experts. Specifically reflecting new type of sensors, like Deployable Passive ESM Tracker (DPET) VERA-NG fulfilling dual role for Electronic Warfare and Air Defence. Czech Armed Forces together with partners presented applied effective way of integration for both end users. DPET users presented and shared their experience.

ISR &EW capabilities are closely interlinked with other aspects of adapting NATO to the requirements of current strategic security environment, Joint Intelligence, the Surveillance and Reconnaissance (JISR) concept, Suppression of Enemy Air Defence (SEAD) and Anti-Access/Area Denial (A2/AD). "The workshop focused on radar structures built on the two platforms that constitute a standard for air defence – conventional radar and PET," as was stated by the Czech ambassador to NATO Jiří Šedivý in his opening address.

ERA Company, as the PET developer and worldwide supplier, not only co-organized and supported the event but also sent several of its experts. They lectured on passive radar systems, namely DPET VERA-NG. Vojtěch Stejskal from the ERA Strategy department introduced the issue in two lectures called "DPET NATO Asset" and "Multisensor Surveillance Future".

The workshop chairman, Colonel Vladimír Lang from the Czech General Staff, lectured on ISR & EW concept by the Czech Armed Forces and Lieutenant Colonel Petr Šnajdárek on complexity, integration and usefulness of the joint architecture of ISR & EW. ERA advisors, Major General Bohuslav Dvořák and Colonel Vladimír Lang, chaired the panel discussions. Richard Mácha, CZ NADREP from HQ NATO enthusiastically served as moderator for this two day event.

There was also an exhibition of two Czech companies related to the workshop topic on site. ERA had its exhibition stand with its mock-up Vera-NG antenna alongside the JISR Institute, another important and valuable

participant in the workshop programme. The international audience could visit their exhibition booths during coffee and lunch breaks and ERA thus had an opportunity to introduce itself to a variety of guests, mainly NATO specialists from NCIA, project managers, SHAPE, DACCC, NIAG, the NATO Defence Investment division, the NATO Intelligence and Security Division and other NATO permanent delegations from HQ NATO. This specialised workshop also had an open format with the presence of defence industry representatives from Leonardo, Airbus, Boeing and Elettronica.

The workshop was very highly and positively evaluated by all participants.

THE EVENT WAS SUPPORTED BY THE CZECH AMBASSADOR TO NATO JIŘÍ ŠEDIVÝ (BELOW, MIDDLE). VOJTĚCH STEJSKAL DURING HIS LECTURE "DPET NATO ASSET".







ERA HOSTED NATO NIAG STUDY GROUP 221 TO PREPARE FOR UV18



RA hosted the progress meeting of Lthe NATO NIAG Study Group 221 in its headquarters in Pardubice from the 27th to the 28th November. The meeting focused on the Industrial Contribution to the demonstration of ISR Information Exchange as Part of Joint ISR Trial Unified Vision 2018 (UV18) and was attended by representatives from Germany, Norway, Italy, Italy, Great Britain, Netherlands, Poland, Romania, Turkey. The fruitful discussions during the two-day meeting varied from trial assessment methodology to gap analysis in present JISR processes. The group formulated topics for the final study report and provided recommendations to the Trial Management Board.

The first meeting day was also devoted to the ERA company and a product portfolio



introduction given by Vojtech Stejskal with an accent on ERA contribution to JISR community, specifically related with VERA-NG. Mainly the sensor role in favour of Air Defence and Electronic Warfare (EW) and integration aspects concerning Advanced Radar Systems (ARS) via Air Command and Control System (ACCS) Wide Common Information Exchange Standard (AWCIES) or EW Coordination Centre (EWCC) via Collaborative Electronic Support Measures Operations (CESMO). On the second day examples have been presented to the participants in ERA's demo room.

ERA HAS PARTICIPATED IN "PROPED 2017" AT THE CZECH **EMBASSY IN BUDAPEST**



RA was honoured to participate in Project Cof Economic Diplomacy called PROPED that took place at the Czech Embassy in Budapest at the beginning of October 2017. ERA expert Jakub Thomas had a presentation to demonstrate the company's capabilities in civil Air Traffic Management as well as in military domain.

"We highly appreciate an opportunity to take part of this official event, where



Czech companies accompanied by Defence and Security Industry Association of the Czech Republic (DSIA) could provide short presentations of their portfolio to Hungarian counterparts. Therefore, thanks go to the Ministry of Foreign Affairs of the Czech Republic and namely the Czech Embassy in Budapest for an excellent coordination of PROPED event", stated ERA Senior Sales Manager Jakub Thomas.

ERA IN TOP 100 MOST STABILE COMPANIES OF THE CZECH REPUBLIC

he consulting company Bisnode has recently published the list of CZECH TOP 100 companies with prestigious Czech Stability Award 2017. Among them ERA along with other remarkable companies such as ČEZ, T- Mobile, Sellier & Bellot and Preciosa.

The CZECH Stability Award reflects the current status and financial situation including future risk prediction. It provides an independent insight on financial and nonfinancial standing of the company.

Bisnode is a European economic information provider on companies and businessmen. The company employs over 2600 people on 17 European markets, their databases provide info on 230 million companies in 190 countries worldwide.

MEDIA COVERAGE - ERA IN NEWS



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the first multilateration system and introducing gate-to-gate surveillance.