era news

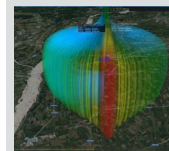**E-LETTER FOR PARTNERS OF ERA COMPANY**

11

SEPTEMBER 2018

CAAC China issued to ERA the Permit Certificate
Page 3

VERA simulator and MIPS - handy simulation tools
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WATM: the best of ERA civil products exhibited in Spain
Page 6

ERA DELIVERS ITS SYSTEMS TO OIL RIG IN NIGERIA

ERA (a member of OMNIPOL group) announced that it had been awarded a contract to implement a WAM and ATM system monitoring the air traffic of helicopters flying to Gulf of Guinea (Niger Delta), in Nigeria, Africa. ERA will deliver 39 stations. The contract was signed by the end user, the Nigerian Air Space Management Authority (NAMA) in Lagos on 12th April 2018. NAMA puts its trust in ERA thanks to a reference from a previous oil rig monitoring system for Holland ANSP LVNL already in operations for three years in the North Sea. ERA also has a great deal of experience with projects in Africa. **> PAGE 3**

ERA HAS REACHED ONE BILLION IN REVENUE

ERA company had a profit of 227 million Czech crowns (€ 8.9 million) last year with total revenues exceeding one billion crowns (€ 40,251 thous.). The economic results were approved by the auditing process in May.

ERA has managed to complete the contract process with new customers who have purchased civil ATM systems and surveillance and reconnaissance VERA-NG systems, the "flagship" in its portfolio.

ERA has also continued the process to broaden its market offerings with more complex solutions for ATC authorities and other air space users. ERA now offers "more than sensors": ATM systems, Command and Control systems, flight incident investigation tools and drone zone planning applications.

New facilities such as modern laboratories, a special anechoic chamber and a VERA training simulator have substantially improved the ability to provide FATs and efficient schooling and deliver enhanced products with better quality over shorter time frames.

ERA PARTICIPATED IN BALTIC CESMO TRIAL 2018

ERA company has been involved in the international Baltic CESMO Trial, part of Unified Vision 2018 at PUTLOS military training area in the north of Germany from 14 to 28 June.

ERA supported the 53rd EW&RECCE regiment during its training campaign with the deployed VERA-NG system. BCT18 became part of the larger international trial Unified Vision (UV18) 2018.

The goal of the trial was to test new procedures in electronic warfare information collection, exchange, fusion and evaluation according to AEDP 13 and STANAG 4658 CESMO. The EW product was distributed to EWCC and shared between other NATO nations in the form of C-EOB formats and Link 16. The tasking of the unit was provided from SEWOC in Ramstein.

VERA-NG was, amongst other assets, integrated to CESMO/EWCC contributing to the Common Operational Picture. Capt. Petr Kos stated: "Cooperation between ERA company and the Czech Army was effective.

We were truly pleased that soldiers had the opportunity to try to operate the new VERA-NG system in the CESMO." Immediate and direct feedback from soldiers is key for the company's further developments.

Cooperation between Czech and German units, regarding CESMO testing and evolution, is already turning into a long tradition and successful story. "We highly appreciate the contribution provided by the Czech Army and ERA in deploying the recent VERA-NG system for trials. VERA-NG successfully proved its capability to be integrated into the CESMO network. The international aspect of the trial also helped the NATO community practice procedures and reach a higher level of interoperability," said Trial manager Lt. Col. Marco Moehling.

ERA´S SYSTEM TO COVER THE TMA OF SULAIMANIYAH AIRPORT IN KURDISTAN

ERA announced that it had been awarded a contract to implement a WAM and ATM system covering the Terminal Manoeuvring Area of Sulaimaniyah International Airport in Kurdistan, an autonomous region of the Republic of Iraq.

ERA will deliver a composite multilateration and ADS-B system for surveillance of aircraft approaching the airport, covering the lower flight level to an extension of 50 NM.

ERA won the tender and will supply eight ground stations of its tried and tested MSS (Multi-sensor Surveillance System) and the ATM system ERIS.

The contract was signed by the prime contractor, the company Waypoint and Kurdistan Regional Government in December 2017 as a result of a tendering process organized by the end user - Sulaimaniyah International Airport.

"This is an important project which ensures that Sulaimaniyah International Airport has the best available technology. The newly implemented multilateration system will operate independently without any support of traditional radar and is hereby a full-fledged replacement for the procedural air traffic management used until now," stated Mr. Taher Abdallah, Director of Sulaimaniyah airport.

MSS by ERA is a modular system easily adaptable to any terminal and wide area requirements as well as all terrain challenges. Due to their resistance to adverse weather conditions, low power consumption and their minimal impact on the environment, the WAM sensors can be easily mounted in the Kurdistan mountains and will therefore be able to cover the TMA of the airport, which is located in the middle of the valley.

The team of ERA experts carried out a site survey and chose appropriate locations for the stations. The Factory Acceptance Tests are finished and the new equipment is about to be installed and become operational in the first quarter of 2019.

Sulaimaniyah International Airport is a new airport established in 2005, located 15 kilometres outside the city of Sulaimaniyah, in Iraqi Kurdistan and has three terminals.

Kurdistan, literally „homeland of the Kurds" or Greater Kurdistan, is a roughly defined geo-cultural region where the Kurdish people form a prominent majority population and where their language, culture and national identity have historically been based. Current use of the term refers to the following areas: south-east Turkey, northern Iraq, north-west Iran and northern Syria. Iraqi Kurdistan first gained autonomous status in a 1970 agreement with the Iraqi government.

NEW TECHNOLOGY STANDARD MEETINGS OF EUROCAE TOOK PLACE IN THE NEW ERA HEADQUARTERS

Eurocae working groups meetings have been taking place all over Europe. After hosting and co-hosting several meetings in Prague, ERA has proudly hosted the first WG-103 meeting in its brand-new headquarters in Pardubice.

This joint Asterix and Eurocae meeting was focused on finalizing drafts for the Open Consultation process leading to the release of the first INCS (Independent non-cooperative surveillance) standard. This standard should define one set of requirements for upcoming MSPSR technology as well as for classic primary radars. Apart from the ED standard, new ASTERIX cat 15 and 16 were attempting to define unambiguous interface for the fusi-

on of ATC systems. The main issues in testing and verification chapters were solved at this meeting.

"We were all impressed by the whole range of issues ranging from the amazing offices and facilities, the quality of the manufactured products, through to the deliciousness of the ribs and beers," stated Andrew Desmond Kennedy, the Secretary of the WG group.

ABOUT WG-103

WG-103 Independent Non-Cooperative Surveillance will develop a system agnostic Technical Specification for non-cooperative surveillance sensors. These will be supplemented when necessary with technique (multi/bi-static or mono-static, passive and/or active) or frequency specific aspects (the operating spectrum will influence the clutter and target modeling) which may necessitate annexes specific to different high-level sensor types. Such specifications will include guidelines to assist ANSPs procuring such systems.

ERA OBTAINED CHINESE PERMIT CERTIFICATE AS THE ONLY FOREIGN MANUFACTURER OF MLAT SYSTEMS

ERA is pleased to announce that CAAC China has issued the Permit Certificate which makes the company the only manufacturer with permission to deliver all airport surface, TMA and WAM surveillance systems and in addition vehicle tracking systems to Chinese ANS authorities.

Chinese CAAC has extremely straightforward regulations on what aviation systems can be used at any Chinese airport, stated by a strict process of certification. Only the leading technologies in the world are invited to apply for the Permit Certificate testing and only systems with a Permit Certificate are allowed to be delivered and installed in the country. ERA obtained this certificate at the end of April 2018.

> „CAAC China hopes ERA can contribute more to air traffic safety in China in the future."
>
> **Luo Ming Ju, expert of China ATM**

The testing itself was very complicated and sophisticated. The entire process has been managed and approved by a committee of experts - a group of roughly ten specialists from different provinces of China. The certificate was awarded to ERA after a gruelling round of test evaluations consisting of factory tests and in situ tests of the system installed at the airport.

"Throughout the entire Permit Certificate testing process over the last 12 months, we experienced excellent co-operation between Air Traffic Control specialists from the Czech Republic and China," stated Jimmy Chan, the participant of the evaluation meetings.

As a result, ERA is the only manufacturer who is qualified to import multilateration systems and the only supplier who has a Permit Certificate on all ground, TMA and WAM systems. ERA also has the Permit Certificate for SQUID thus being the exclusive certified vendor of vehicle tracking transmitters. In addition, ERA helps CAAC establish standards for the multilateration technology used at Chinese airport as well as set up the Permit Certificate testing procedure in China.

"CAAC China hopes ERA can contribute more to air traffic safety in China in the future," added Luo Ming Ju, the expert of China ATM.
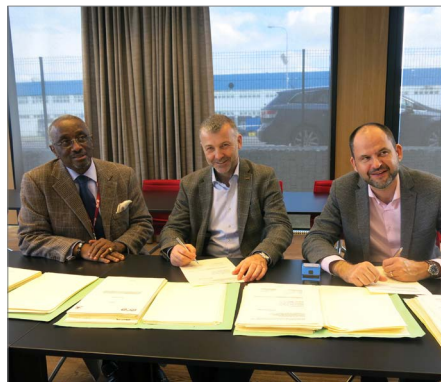
Over the last decade ERA has already delivered four surveillance systems to Chinese airports: in Beijing, Shanghai, Changsha and Zhengzhou. ERA won the international tender last year to install the fifth system at the "meant to be largest" airport in the world in the Beijing southern quarter of Daxing.

ERA DELIVERS ITS SYSTEMS TO OIL RIG IN NIGERIA, AFRICA

CONTINUED FROM PAGE 1:

Its systems have been successfully functioning in four other African countries: Egypt, Namibia, Uganda and South Africa with Namibia being the largest WAM system worldwide.

NAMA provides flight information services for helicopters in the Gulf of Guinea area to support their oil and gas operations. There has been a need of a surveillance and tracking system to provide flight information to pilots flying to oil platforms. NAMA wants to increase the level of air traffic safety and thus requires a reliable, cost effective and robust solution that withstands the typical tropical climate of heavy rains plus 50° Celsius and to be resistant against corrosion of the salty air environment.

ERA will supply its mature composite (Multilateration and ADS-B) system NEO along with the ATM system ERIS. The project is planned to be completed by 2020 and is currently in the phase of site survey preparations, which should take place during this autumn ERA will cooperate with a local sub-contractor, the logistics company, Cathedral (West Africa) Limited which will provide logistic support for the installations.

VERA-NG SIMULATOR - NEW TRAINING TOOL FOR THE PASSIVE ESM TRACKER

The VERA-NG training simulator is a military reconnaissance tool, which provides training of passive tracking and electronic intelligence systems.

KEY BENEFITS:

- One receiving station to analyze real signals for advanced training.
- Any type of battlefield scenario (airspace, ground or navy)
- No need to deploy the entire system with four site stations
- Developed in cooperation with the Department of Radiolocation at the University of Defense in Brno

OPERATORS WORKPLACE

TRACKING DISPLAY

HYPERBOLIC DISPLAY

COMMAND & CONTROL

TECHNICAL ANALYSIS

INSTRUCTOR WORKPLACE

3D SCENARIO OVERVIEW

SCENARIO EDITOR

The simulator system consists of the VERA-NG console as a workplace for operators (trainees), a simulator console as a workplace for instructors (trainers), a central processing station and receiving universal military module.

The training simulator significantly decreases the time needed for new users to obtain needed experience without affecting the performance of the operational system. The training can be carried out using data from prepared scenarios or data from one receiving station. Off-line data from another VERA-NG system can also be replayed.

ERA can deliver various scenarios reflecting the following themes or ERA experts can create any scenario on demand to create situations which might be extremely rare or almost impossible to find in the real environment:

SCENARIOS:
- **Navigation flights**
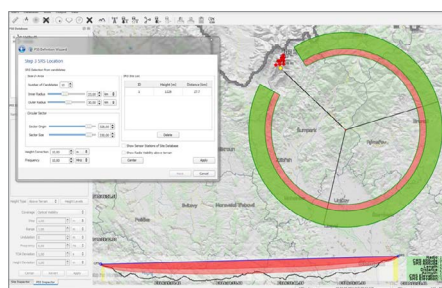- **Dog fights**
- **AWACS monitoring**

- **Air support JTAC**
- **Area mapping**
- **Border crossing**

MIPS - HANDY COVERAGE SIMULATION TOOL

MIPS (MIssion Planning System) represents a comprehensive coverage simulation tool for distributed surveillance systems with a support of single site coverage that may represent a coverage of traditional radar.

MIPS was originally developed to support the decision-making process of the commander when preparing VERA recce missions through tools serving for an optimization of deployment of its stations by means of available geographic data. MIPS was later supplemented by additional functionalities to support the deployment process of other ERA systems such as MSS, WAM, PAR and MSPSR.

MIPS is supported by digital terrain model providing map data and geographic data (vector and raster data) in various map projecti-

ons to create map environment over the area of interest where candidate sites for location of ground station satisfying terrain analysis criteria are searched. Once located the user can verify site locations for available infrastructure, accessibility (e.g. roads), etc. and re-locate stations as appropriate.

KEY FUNCTIONALITIES:

- Various types of analysis – including single site LOS, coverage and accuracy simulations
- User-friendly HMI
- Vector and raster maps support
- Predefined set of map backgrounds – including Open Street map or similar offline alternatives
- Advanced measurement and terrain profile tools
- Direct export/import of sites and polygons into Google Earth
- PSS Definition Wizard – automatic/semi-automatic tool which helps to an operator to find and optimal PSS deployment
- Sites and 3D objects database

RADAR SYMPOSIUM IN BONN SUPPORTED BY ERA

The twentieth annual International Radar Symposium (IRS) was held in Germany this year. ERA as one of the key player on the surveillance market, was the main partner of the event for the second time.

"We view support for this type of event as very important and useful for future development in the field of radiolocation. Exchange of experience is truly necessary in today's dynamic technology expansion", said Milan Stary, Marketing and Communication Director.

The main scope and aim of IRS 2018 is to provide a platform for sharing information and experience within the worldwide radar community including academic and industrial professionals. Academics, researchers, engineers, system analysts, graduate and undergraduate students, government and non-government organizations shared and discussed theoretical and practical knowledge over three energizing days in the four conference halls of Maritim hotel in Bonn.

Prof. Dr. Hermann Rohling, founder of IRS, has led the conference for 20 years: "I'm really happy I succeeded in my original aim to connect the worldwide community of radar researchers and experts and create a platform for sharing knowledge and experience. I appreciate ERA company's support of our event and its contributions to IRS".

ERA-BHC PROVIDES THE SW PLATFORM "CYBER HYGIENE" TO TECHNICAL UNIVERSITY

The company ERA-BHC CS, a subsidiary of ERA and a member of OMNIPOL group, signed a co-operation agreement together with Masyryk Institute of Advenced Studies and the Estonian company CybExer Technologies OÜ, which includes a contract to provide the software platform "Cyber Hygiene" plus consultancy free of charge.

"I believe we can offer more information about cyber threats not only to students, but also in the future to the general public" said Daniel Dunovský, CEO of ERA-BHC and added: "Our goal is to provide comprehensive services about cyber security to a wide range of customers in the commercial and non-commercial sphere."

This two year contract includes a new exclusive e-learning training platform meant

for testing and educating users in cyber security. This educational system is a product of ERA-BHC and CybExer.

The contract was signed in the presence of His Excellency Sten Schwede, the Ambassador of the Estonian Republic, on the 20 April 2018 by the representatives of all three parties.

ERA INTRODUCED VERA SIMULATOR AT CONFERENCE PVO 2018

ERA and her parent company OMNIPOL took part in the PVO 2018 annual conference in April. The 19th year of the traditional event was organised by the Department of Air Defence Systems at the club of the Faculty of Military Technology of the University of Defence in Brno. This year the highlight topic was Air Defence Training and Exercise for Future Combat.

ERA participated as one of the partners and its training expert from the Schooling Department delivered the lecture "VERA-NG Training Simulator: A tool to train operators of PET using various scenarios of the airspace situation" along with a live presentation of the system – read also article on page 4.

ERA AND R-SYS PRESENTED AT CONGRESS IN SLOVAKIA

ERA and R-SYS representatives had been invited to actively take part in the conference Airspace for All and Air Navigation Services organized by the Flight Preparation Department of the Technical University of Košice in April.

They presented the ERA ATM portfolio and specifically the IXO SYSTEM, a comprehensive solution with a focus on pilot pre-flight briefing IXO PILOT, and the second generation of software solution IXO RPAS that integrates RPAS into the ATM environment.

ERA AT WATM CONGRESS IN MADRID ENJOYED THE BUSINESS *ATMOSPHERE*

ERA company exhibited its tried and tested technologies for aircraft surveillance and air traffic management and their innovations at the World ATM Congress – the largest international ATM exhibition and conference held at IFEMA trade-park in Madrid, Spain.

This event, co-organized by CANSO and ATCA was held from 6 to 8 March 2018. According to official CANSO information, there were 237 exhibitors, 260 speakers and 8,542 registrants from 136 countries taking part in over 100 different conference sessions.

ERA sales and product managers, along with experts from ERA's Slovak subsidiary R--SYS, took advantage of the presence of a number of important partners as well as new potential customers to negotiate business issues. They presented references concerning the operational installations of ERA composite multilateration and ADS-B systems as well

ALWAYS BUSY ERA AND R-SYS STAND IN WATM EXHIBITION HALL.

as novelties in its portfolio suitable for ATM such as ERA Integrated System ERIS and IXO by R-SYS. The main highlight of the joint ERA and R-SYS presentation was the flight and drone zone planner IXO. The Head of R-SYS Marketing held a live presentation of the IXO system for the participants in the ERA event Happy Hour and his colleagues took several interviews for the media.

IXO system represents a comprehensive solution that seamlessly integrates information on manned and unmanned aircraft operations and provides real-time aeronautical information for all airspace users.

The World ATM Congress brings together developers, experts and air navigation service providerd to join conference sessions, product demonstrations and launches, contract closures and educational and networking opportunities.

ERA PROMOTED ITS PORTFOLIO OF DEFENCE PRODUCTS AT EUROSATORY IN PARIS

ERA took part in the Eurosatory defence and security exhibition held at the international conference centre in Paris in June.

ERA company exhibited its military solutions as part of the joined exhibiting stand of the Czech official delegation. This boost to the Czech Republic's defence industry was linked with the 100th anniversary of the founding of the country.

ERA, along with its parental company OMNIPOL, presented the last generation of PET system VERA-NG and its training simulator

along with the L-39 training fighter by Aero Vodochody to various delegations of army specialists. The presentation was focused on VERA's benefits for electronic warfare.

The VERA-NG has traditionally been used for electronic intelligence gathering; soaking up the RF emissions from various platforms to build an electronic order of battle as well as sovereign threat libraries. ERA is currently witnessing expanded uses for its VERA-NG passive surveillance system beyond traditional EW functions, evolving to surveillance missions and utilisation in ground-based air defence (GBAD) networks.

Eurosatory brings together the entire defence and security industry to source the latest equipment and systems and generate new business opportunities. This year's exhibition brought together over 1,802 exhibitors from 63 countries, 57,056 visitors from 153 countries.

ERA EXHIBITED AT MALAYSIA'S DSA 2018

ERA and OMNIPOL presented their military systems, namely PET VERA-NG at the 16th edition of the exhibition and conference DSA 2018 (Defence Services Asia) in Kuala Lumpur, the capital of Malaysia, April 16 – 19. Their shared exposition booth was visited by several VIP delegations as part of the event.

The exhibition consisted of 30 international pavilions attended by more than 350 delegations from 45 countries, 1,500 participating companies from 60 nations and 43,000 trade visitors from 70 countries. There was also a side event: NATSEC Asia 2018 – the International Exhibition on National Security for Asia. The main asset of the shows is to display the world's sophisticated hardware & electronic warfare in land, air & sea defence, battlefield healthcare products/technology, training & simulation systems and security peripherals.

LIFE OF ERA COMMUNITY IN PHOTOS

THE EQUIPMENT FOR SIGNIFICANT PROJECT IS GETTING READY. THE SMAG MASTS RECENTLY „OCCUPIED" THE ENTIRE PREMISES AND MERCEDES VEHICLES HAVE UNDERGONE SERIE OF GRUELING TESTS (MOBILITY TEST, IMMERSION IN WATER, DUST PROOF TEST ETC.)

ERA EXPERTS TOOK PART OF SEVERAL WORKSHOPS: ZOFIN FORUM IN PRAGUE FOCUSED ON CZECH ARMED FORCES (ABOVE) AND EW EUROPE IN LAUSANNE DEDICATED TO ELECTRONIC WARFARE ISSUES.

ERA BRANCH OFFICE IN PRAGUE MOVED TO RECONSTRUCTED OMNIPOL BUILDING NEKAZANKA IN CAPITAL´S CENTRE.

TEAM BUILDING EVENTS FOR ERA EMPLOYEES INCLUDE „ON BIKE TO WORK" COMPETITION (BELOW) AND SO CALLED GLADIATOR RACE IN MUD.

MEDIA COVERAGE - ERA IN NEWS

Read more at www.era.aero in section About ERA/media centre.

ERA extends its presence in Africa by implementing significant project in Nigeria

Tuesday, May 22, 2018 11:08 AM - Pardubice, Czech Republic.

ERA (a member of OMNIPOL group) announced that it had been awarded a contract to implement a WAM and ATM system monitoring the air traffic of helicopters flying to Gulf of Guinea (Niger Delta), in Nigeria, Africa. ERA will deliver 39 stations.

The contract was signed by the end user, the Nigerian Air Space Management Authority (NAMA) on 12th April 2018. NAMA puts its trust in ERA thanks to a reference from a previous oil rig monitoring project with the Holland ANSP LVNL already in operations for three years in the North Sea. ERA also has a wealth of experience with projects in Africa, with its systems successfully functioning in four other African countries – Egypt, Namibia, Uganda and South Africa with Namibia being the largest WAM system worldwide.

NAMA provides flight information services for helicopters in the Gulf of Guinea area to support oil and gas operations. There has been a need of a surveillance and tracking system to provide flight coverage for pilots flying to oil platforms. NAMA wants to increase the level of air traffic safety and thus needs a cost effective and robust solution that withstands the typical tropical climate of heavy rain and humidity and to be resistant against corrosion of the salty air environment.

ERA will supply its mature composite (Multilateration and ADS-B) system NEO along with the ATM system ERIS. The project is planned to be completed by 2020 and is currently in the phase of site preparations, which should take place during this summer. ERA will cooperate with a local logistics company, Cathedral (West Africa) Limited which will provide logistic support for the project.

ERA obtained Chinese Permit Certificate as the only foreign manufacturer of multilateration based systems

Company: ERA Company
Date: 12.06.2018

ERA is pleased to

announce that CAAC China has issued the Permit Certificate which makes the company the only to deliver all airport surface, TMA and WAM surveillance systems and in addition vehicle tracking system.

Chinese CAAC has extremely straightforward regulations on what aviation systems can be used at any Chinese airport and for certification. Only the leading technologies in the world are invited to apply for the Permit Certificate test, which then has to be delivered and installed in the country. ERA obtained this certificate at the end...

...very complicated and sophisticated. The entire process has been managed and supported by specialists from different provinces of China. The certificate was awarded to ERA after a successful testing process over the last 12 months, we experienced excellent cooperation from the Czech Republic and China," stated Jimmy Chan, the participants of the specialist.

...the only manufacturer who is qualified to import multilateration systems and the only to deliver the WAM systems. ERA also has the Permit Certificate for SQUID thus being the exclusive supplier. In addition, ERA helps CAAC establish standards for the multilateration technology used at Chinese making procedure in China.

ERA was awarded a contract to install its WAM system to cover the TMA of Sulaimaniyah Airport in Iraqi Kurdistan

22 MARCH 2018

ERA (a member of OMNIPOL group) announced that it had been awarded a contract to install a WAM and ATM system covering the Terminal Manoeuvring Area of Sulaimaniyah International Airport in Kurdistan, an autonomous region of the Republic of Iraq. ERA will supply its composite multilateration and ADS-B system for surveillance of aircraft approaching and departing, covering the lower flight level to an extension of 50 NM.

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...important project which ensures that Sulaimaniyah International Airport has the best surveillance technology. The newly implemented multilateration system will operate independently and in support of traditional radar and is hereby a full-fledged replacement for the old radar in the air traffic management used until now." stated Mr. Tahir Abdullah, Director of the airport. MSS by ERA is a modular system easily adaptable to any terminal and wide requirements as well as to all terrain challenges. Due to their resistance to adverse weather conditions, power consumption and their minimal impact on the environment, the WAM can be easily mounted in the Kurdistan mountains and will therefore be able to cover the...

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PUBLICATIONS

MODERN DAY MARINE
SEPTEMBER 25–27, 2018
QUANTICO, VA

DSA 2018: PASSIVE PROGRESSIVE

ERA has revealed a number of enhancements to its VERA-NG ground-based passive radar system to MONch during the DSA 2018 exhibition being held in Kuala Lumpur between 16 April and 18 April. In particular, the company stressed that it is working with Germany's DIMAG to develop an enhanced mast for the system which will have a height circa 25 metres (82 feet) and, unlike the current mast used by the system, will include a high degree of automation greatly reducing the set-up time when the system is deployed.

At the programme level, NATO is taking delivery of several VERA-NG systems as part of its overall ground-based air surveillance architecture that it is acquiring as part of the deployable element of the Thales Raytheon Air Command and Control System (ACCS) which is rolling out a common suite of hardware and software to replace a number of disparate integrated air defence system Command and Control (C2) elements, and an operations C2 systems used across NATO's European membership (sans Germany and the United Kingdom). The VERA-NG will be used to support deployed NATO ground-based air surveillance elements including the two Indra LTR-25 Lanza L-band (1.215GHz to 1.4GHz) ground-based air surveillance radars which the alliance has acquired to this end. All of these surveillance systems will be used to support the DCAOC (Deployable Combined Air Operations Centre) and DARS (Deployable Air Control Centre, Recognised Air Picture Production Centre, Sensor Fusion Post) both of which will be located at Poggio Renatico airbase in northeast Italy when not deployed to a theatre of operations.

ERA officials told MONch that the VERA-NG, of which the alliance will acquire two, is currently in the process of completing factory acceptance tests, adding that both systems should be in service with the deployable elements of the ACCS over the next three to five years. They continued that one of the most challenging aspects of the integration of the VERA-NG with the DCAOC/DARS architecture is connecting the system to the latter using the AWCIES (ACCS Wide Common Information Exchange Standards). The AWCIES uses the ASTERIX (All Purpose Structured Eurocontrol Surveillance Information Exchange) protocol as its base, and effectively converts the output language of the sensor being connected into the wider ACCS architecture into a language that the ACCS can then recognise and use.

Thomas Withington

The VERA-NG is being integrated into the deployable elements of the ACCS architecture and will be based at Poggio Renatico airbase. (Photos: NATO)

Se utan att synas

Miroslav Cerny förklarar för Fritz Maier, systemingenjör inom C3-området på SPL Led FMV, att man kan gå in i varje enskild emitter i farkosten för att se i vilket mode som den arbetar. Då kan man bedöma vilken uppgift som piloten, mest troligt, har.

FMV genomför en demonstration av ett så kallat passivt sensorsystem. På en bildskärm syns två punkter. Genom att snabbt analysera den kombination av signaler som sänds ut från flygplanen visar det sig att det är två JAS 39 som på låg höjd kommer in från norr längs kusten.

På skärmarna som står uppställda i en lektionssal på Luftvärnsregementet i Halmstad syns varenda flygrörelse över södra Sverige och Danmark. Även fartyg runt kusterna ser man på skärmarna.

– Vi gör den här demonstrationen för att öka kunskapen om hur den här typen av så kallade passiva sensorer för luft- och havsövervakning fungerar, säger Carl Fischerström, som samordnar demonstrationen.

CZECH DEFENCE INDUSTRY | online.cz

VERA-NG

VERA-NG simulator – training tool for the Passive ESM Tracker

BENEFITS:

NEWS

Sweden trials passive sensor tech

Photo: ERA

Sweden has conducted trials of passive sensors that could be integrated into a wider surveillance network, reducing its reliance on potentially vulnerable radar systems.

The country has been examining ways it can diversify its air defence assets instead of relying solely on active sensors, especially radars that can be targeted by anti-radiation missiles or jammed in times of conflict.

It has been trialling Czech company ERA's VERA-NG, a passive electronic support measure system. The technology is able to listen in on the RF spectrum and sniff out emissions – whether communications, radar or even jamming signals – from hostile aircraft.

The receivers are set up in three different locations, with a central processing station in the middle. The system can also pick up RF emissions from naval vessels, adding to the overall situational awareness picture.

'The special thing about passive systems is that they are difficult to detect for the opponent,' said Carl Fischerström, who coordinated the demonstration at the Swedish Defence Materiel Administration (FMV).

'They only listen, while radar systems send out signals that are reflected against the object, making them easier to knock out.'

VERA NG can also perform cross-border ELINT gathering, soaking up emissions from enemy systems, predominantly radars, that may be stationed close to a border. This allows collectors to process and analyse those threat signals and store them in a library for frontline combat units to use in their radar warning equipment.

The system can track 200 real-time targets up to a range of 400km, according to ERA. The frequency range for the receivers is anywhere from 50MHz to 18GHz.

For the moment at least, the latest trials of the passive air defence system are only to test the capabilities. An FMV spokesperson told Shephard that the demo was for 'gaining knowledge' and that a purchase of the system is still to be determined.

While not a member of NATO, Sweden has looked to shore up its national defences in recent years as the threat from Russia has increased. In December, the country's Defence Commission released a document called 'Resilience' that set out in more detail how it would deal with an armed attack.

The commission said that a large European conflict could start with an attack on Sweden, with large swathes of territory seeing 'intensive combat with severe consequences', according to the document.

In February, the US State Department approved the sale of the Patriot air and missile defence system to Sweden, worth $3.2 billion.

By Grant Turnbull, London

ABOUT ERA:

ERA (the member of OMNIPOL group) 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 100 installations, deployed in over 60 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.