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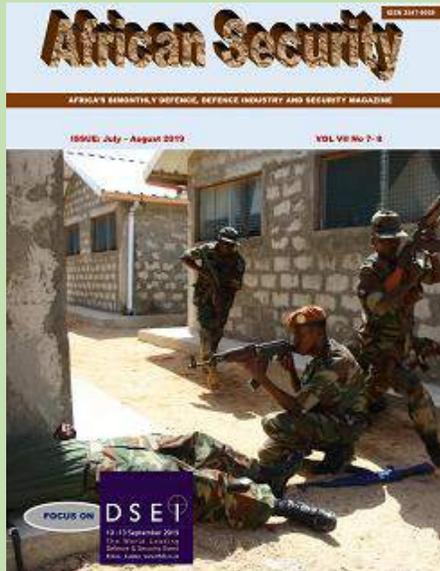
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CNS ADVOCATES COMMON COMMUNICATION NETWORK FOR EFFECTIVE MARITIME SECURITY IN WEST AFRICAN SUB-REGION

The Chief of the Naval Staff (CNS), Vice Admiral Ibok-Ete Ibas has called on navies in the West African Sub-Region to develop a common network that would facilitate greater integration for seamless information sharing across the entire sub-region. Vice Admiral Ibas gave this charge at the opening ceremony of the 60th Anniversary of the Ghana Navy.

Admiral Ibas emphasized that it would equally be expedient for member countries to reduce the bureaucracy required to share information, train personnel in common official language used by member nations as well as develop and share data regarding convicted offenders of maritime crimes. These measures, he posited, would greatly enhance maritime operations and the collective desire to rid the Gulf of Guinea (GoG) of criminality within the shortest possible time. While reiterating the commitment of the Nigerian Navy (NN) to emplace a secure maritime environment for the prosperity of Nigeria, the GoG countries and the global commons in general, Admiral Ibas offered that the availability of the Regional Maritime Domain Awareness (MDA) Training School in Lagos-Nigeria is another prospect to be harnessed by member countries.

He also highlighted some NN independent operational engagements established to check criminality at sea, including Operation TSARE TEKU and Operation RIVER SWEEP, stating that since the activation of the anti-piracy operation 3 years ago, there has been a successive decline in reported cases of pirate/sea robbery attacks within Nigeria's maritime domain.

The CNS pointed out that apart from the 2 specifically designed operations, the NN has continued to conduct policing patrols across the nation's Exclusive Economic Zone (EEZ) and territorial waters employing the advantage of its MDA infrastructure to coordinate and direct the pattern of patrols. According to him, the Service is thus able to conduct round the clock surveillance of Nigeria's maritime space using the Regional Maritime Awareness Capability (RMAC) and the Falcon Eye (FE) facilities in addition to surface vessels and helicopters.

Admiral Ibas stressed that the Service recently signed an MoU on white shipping with the Indian Navy, has applied to join the Indian Ocean Naval Symposium and participated in the establishment of a mechanism for sharing maritime information with regional navies and maritime regulatory agencies at the Maritime Trade Information Sharing Centre in Ghana. He also stated that these strategic partnerships have the potential to further increase NN domain awareness across both the Atlantic and Indian Oceans, with positive impact on surveillance capacity to facilitate NN policing duties.

Furthermore, the CNS disclosed that the NN engages regularly with various maritime stakeholders in Nigeria in fostering a shared vision on the accomplishment of maritime security tasks and information sharing which has led to the successful arrest and prosecution of several cases. He informed that one positive outcome of such consultation with the maritime stakeholders was the launching of the Harmonised Standard Operating Procedure (HSOP) on Arrest, Detention and Prosecution of Vessels and Persons (HSOP AD&P) in Nigeria's Maritime Environment in January 2017. According to Admiral Ibas, the NN constantly engages directly with each agency on modalities for implementation and that has resulted in the arrest of over 130 vessels within the past 2 years.

According to the CNS, the HSOP was further boosted as a legal instrument for the administration of maritime crimes in Nigeria by Mr President's recent assent to the Suppression of Piracy and other Maritime Offences Bill of 2019. The Act would serve as strategic deterrent to the commission of various criminalities within the nation's maritime environment and curtail the excesses of syndicates that continue to profit from sponsoring acts of piracy within the GoG.



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ICT, A Critical Tool in Information Warfare

He advised the students to take the opportunity to learn new skills, gather new ideas that would enhance their professional outlook and develop a habit of excellence, learn to act and work accordingly in meeting the required standards and procedures of the school.



The Commandant MATS commended the school for introducing new subjects such as Communication Security, Signal Tactics and special training on some Surveillance System, Voice Over Internet Protocol Communication and Satellite Communication.

The Commanding Officer, (CO), Signal Training School Lt Col Peter Abban, in his address noted that, the objective of the course was to equip students with the knowledge and skills required to effectively perform their duties as organic signalers with the view of laying a sound foundation for subsequent professional development.

The Commandant, Military Academy Training Schools (MATS), Maj Gen William Omane Agyekum has said that Information Communication Technology (ICT) is a critical tool in information warfare which required effort, commitment and determination to equip students with the vital knowledge and skills needed to achieve its objectives.

Maj Gen William Omane Agyekum mentioned this at the commissioning and opening ceremony of Signal BIII-BII and Signal Basic Course1-2019 as well as renovation of classroom block at the Signal Training School, Burma Camp on 31 July 2019.

He noted that communication was a fast changing area, they students must endeavour to keep up with the technological advancements in order to remain effective. He added that Command was aware of the numerous infrastructural and logistical challenges the school was faced with and would do its best to provide the requisite support for students in the Signal Training School.

“As soldiers of this noble profession you must be ready to equip yourselves with the competencies required to deal with emerging trends and innovations associated with communications and Information System,” he added.

Lt Col Peter Abban stressed that a lot would be required from the students since their physical and mental endurance would be put to test urging them to show high level of enthusiasm, curiosity and dedication to face the challenges that comes with the courses.

The Commandant MATS was joined by the Director of Communications Col Matthew Essien of the Signal Regiment to commission the newly renovated two-unit Classroom Block for the Signal Regiment Training School.



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EGYPTIAN AIR FORCE BEGINS NEW UPGRADE PROGRAM FOR F110 ENGINE FOR F-16 FLEET



Courtesy photo by Lockheed-Martin

With strong support from the United States Air Force, Thursday, July 26th, 2019, marked a big step forward to modernize the Egyptian Air Force's F-16 Falcon fleet for combat operations.

Senior leaders from the United States Air Force, GE Aviation, StandardAero, DLA-Aviation and Foreign Military Sales attended a ceremony at StandardAero's facility in San Antonio to celebrate the first GE F110-100 engine overhaul induction under the Pacer Pharaoh Program. The ceremony recognized the collaborative effort led by the USAF to upgrade the EAF's F-16 fleet.

In May, Defense Logistics Agency (DLA) Aviation and the USAF awarded a Pacer Pharaoh Program support contract to GE Aviation valued at more than \$79 million for Engine Structural Integrity Program (ENSIP) repair and Service Life Extension Program (SLEP) upgrade of F110-100A and B engines to the F110-100C.

The F110-100C SLEP upgrades critical components, including the combustor, high pressure turbine, compressor and augmentor. These enhancements combine to extend the service life of the engine, reduce operating cost, increase reliability and improve safety. The program is designed to provide a significant time-on-wing increase, 25% improvement in cost per flight hour, and a 50% extension in engine phase inspections.

Tinker Air Force Base's Propulsion Management Group (PMXG) had supported F110 upgrades during the previous decade. After PMXG faced capacity issues, the USAF approached DLA with support requirements to meet the EAF's needs. The Pacer Pharaoh Program support contract transfers the USAF's workload to GE Aviation, in collaboration with StandardAero, enabling increased customer support at a competitive price. The collaboration involved is part of the Air Force's Captains of Industry (COI) partnership, which uses

Supplier Capability Contracts (SCC) to streamline the procurement process to meet customer needs.

"Egyptian combat readiness and the United States Air Force sustainment support for our international partner nations is key to the Air Force mission," said Chuck Darnell, Chief, Propulsion Sustainment Division, AFLCMC. "To fly, fight and win with our partner nations is our goal."

This is the first F110 engine MRO relationship between GE and Standard Aero. It will allow GE to provide complete SLEP/ ENSIP repair capability to their customers. StandardAero will provide engine level disassembly, reassembly and test portion of the worksopes. GE will provide engineering, material and the depot-level repair support at its facility in Winfield, KS.

"GE is pleased to team with Standard Aero and to build on the success of our growing USAF partnership," said Cristina Seda-Hoelle, VP and General Manager, Military Services for GE Aviation. "The support of the Egyptian Air Force and our global F110 customer base is a priority, and we are committed to finding win-win solutions for all."

"StandardAero is proud to extend our relationship with GE Aviation, applying our experienced workforce and over 15 years of F110 proven performance to supporting the USAF and our international Allies," said Mark Buongiorno, StandardAero's Vice President of San Antonio operations.

The agreement will provide uninterrupted support for the EAF, reducing turn-around time (TAT) and creating new capabilities for GE Aviation. The continued collaboration opens the door for more multi-partnership ENSIP repair capability for IEMP countries and gives the USAF more sustainment support options.

GE COI-SCC currently support critical military weapons systems including the A-10 Thunderbolt, B-1 Lancer, B-2 Spirit, F-16 Falcon, KC-135 Stratotanker, T-38 Talon and U-2 Dragon Lady.



Mi-35M

Mi-35M transport-combat helicopter provides mission accomplishment both day and night in any weather conditions.

Stronger partnerships with post-conflict countries needed to ensure ‘path towards durable peace’: UN chief



As UN missions are drawn down and eventually closed, stronger partnerships are needed to ensure that countries recovering from conflict can transition successfully to a phase of durable peace and development, UN Secretary-General António Guterres told the Security Council on Thursday.

The UN chief told representatives at the briefing, entitled “Peacebuilding and sustaining peace: strengthening partnerships for successful nationally-owned transitions”, that the Organization is putting a stronger focus on transition periods, when the UN reconfigures its missions, or leaves a country.

The meeting was part of a process which has seen the Security Council and UN system place more emphasis on ensuring the successful closures of UN missions, following the release of a 2014 report by a group of independent experts, which said that the UN system needed to pay more attention to transitions, describing them as “frequently poorly timed and poorly managed”.

The loss of life, economic devastation and reversal of development gains caused by a relapse into conflict can go far beyond a country’s borders António Guterres, UN Secretary-General The authors also noted that the drawdown of peace operations usually comes with visibly diminished political attention and a rapid drop-off in financing

to continue UN engagement through a country team.

This was reflected in the comments made by Mr. Guterres on Thursday, when he noted the risks inherent in mission transitions: “The international community may pay less attention to the country concerned. Strategic gains achieved during decades of international support can hang in the balance. And the loss of life, economic devastation and reversal of development gains caused by a relapse into conflict can go far beyond a country’s borders”. The 2014 report led to the adoption of Security Council and General Assembly resolutions, which recognized the importance of providing adequate resources for peacebuilding, including during the transition period during the drawdown of missions.

Since then, the UN has implemented measures to improve transition planning, such as strengthening the ability of resident coordinators (the senior UN official in a particular country) to conduct conflict analysis and prevention. In his briefing remarks, Mr. Guterres said the UN’s ongoing reform process is leading to more “joined-up engagement”, from the deployment of peace missions, to

their reconfiguration and eventual withdrawal.

‘We must prioritize partnerships’

The importance of partnerships, and close collaboration between the UN and host governments in ensuring successful transitions, was highlighted in the 2018 Declaration of Shared Commitments on Peacekeeping Operations, and the UN Secretary-General’s Action for

Peacekeeping Initiative, and emphasised by Mr. Guterres during Thursday’s Council session.

“We must prioritize and strengthen partnerships”, he said, “with national stakeholders, across the UN system and with international financial institutions, and with Member States, for collective action to ensure their success”. Strong partnerships, added Mr. Guterres, can help avoid a drop-off in support as the UN reduces or alters its presence in a country.

The UN chief gave several examples of UN peacekeeping missions in transition, that, he said, he is following closely. They include Darfur, Sudan, where local UN operations have allocated \$32 million to priority areas such as the rule of law, human rights, and durable solutions for displaced people; Haiti, where the UN Country Team is working with the national government to work on priority projects; and Colombia, where the UN has supported the peace process with two successive political missions.



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US Navy sends 2nd vessel to Gulf of Guinea



Photo: US Navy

USNS Carson City (T-EFP 7), a military sealift command Spearhead-class expeditionary fast transport ship, departed Rota, Spain, on July 2, as part of the US Navy's second deployment to the Gulf of Guinea this year.

Sailors and embarked personnel will work alongside regional partners on an Africa Partnership Station (APS) mission to provide small boat maintenance assistance, maritime law enforcement engagement, and medical and community relations outreach.

"The deployment of USNS Carson City to the Gulf of Guinea enables our partners to improve maritime security along their coastlines, territorial seas, and exclusive economic zones," Adm. James G. Foggo III, commander, U.S. Naval Forces Europe-Africa, said.

U.S. Coast Guard (USCG) cutter Thetis (WMEC 910) was the first U.S. ship to deploy to the Gulf of Guinea in 2019. "Thetis conducted training with our African partners on maritime law enforcement

throughout exercise Obangame Express 2019 and continued training

with our partners in the region during its deployment," Foggo added.

"Carson City's deployment will enhance Gulf of Guinea nations' maritime capabilities through workshops and collaboration. The presence of U.S. ships such as Thetis and Carson City helps address some of the challenges our African navies and coast guards have requested assistance with, including law enforcement and maritime resource management."

During Carson City's deployment, U.S. military personnel will work alongside U.S. partners in Cabo Verde, Cote d'Ivoire, Ghana, Nigeria, and Senegal to provide assistance based on host nation requests during previous APS exercise and engagements. The crew and the embarked European allies will provide host nation-requested, needs-based assistance through engagements as part of our enduring friendship and partnership with our African partners.

Mission personnel traveling with Carson City include a small boat maintenance and repair team, a medical team, United States Coast Guard Maritime Law Enforcement personnel, and the U.S. Naval Forces Europe band, who will conduct performances for local communities. In addition, there are experts including service members from other regional partners and allies, who are also joining Carson City for the deployment.

Thetis' deployment earlier this year, like the Carson City deployment, was part of the APS program. The cutter was in Africa theater for three months, conducting training with regional countries on law enforcement tactics and techniques to combat illegal fishing, human and narcotics trafficking, piracy, and pollution.

APS is U.S. Naval Forces Africa's flagship maritime security cooperation program focusing on maritime safety and security through increased maritime awareness, response capabilities, and infrastructure. It consists of the various exercises and operations conducted by U.S., European, and African partners and allies throughout the U.S. Africa Command area of operations.

U.S. Naval Forces Europe-Africa/U.S. 6th Fleet, headquartered in Naples, Italy, conducts the full spectrum of joint and naval operations, often in concert with allied and interagency partners, in order to advance U.S. national interests, security and stability in Europe and Africa.



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NIGERIAN ARMY APPROVES NEW POSTINGS AND APPOINTMENTS



The Nigerian Army has just released the postings and appointments of its officers. The posting which was approved yesterday by the Chief of Army Staff, Lt Gen TY Buratai is a routine exercise carried out to reinvigorate the system for greater professional efficiency.

The highlight includes the appointment of the newly promoted Lt Gen LO Adeosun, the erstwhile Chief of Training and Operations now redeployed as Chief of Policy and Plans (Army), Maj Gen AO Shodunke from Army Headquarters Department of Army Standards and Evaluation to Defence Headquarters as Chief of Defence Logistics, Maj Gen AA Tarfa from Martin Luther Agwai International Leadership and Peacekeeping Centre to Training and Doctrine Command Minna as Commander, Maj Gen EO Udoh from the Army Headquarters Department of Army Logistics becomes Chief of Training and Operations (Army), Maj Gen MS Yusuf who was the General Officer Commanding 81 Division is now Chief of Administration (Army), Maj Gen JI Unuigbo the former Corps Commander Ordnance becomes the Chief of Logistics (Army) while Maj Gen OF Azinta former General Officer Commanding 2 Division is appointed Chief of Army Standard and Evaluation.

Others include; Maj Gen AB Omozoje of Army Headquarters Department of Policy and Plans is now the General Officer Commanding 2 Division Ibadan. Also, the newly promoted Maj Gen AB Biu is substantive General Officer Commanding 7 Division Maiduguri, Maj Gen JJ Ogunlade from Defence Headquarters becomes the General

Officer Commanding 8 Division Sokoto, while Maj Gen JO Irefin from Defence Headquarters Garrison is appointed General Officer Commanding 81 Division Lagos.

The erstwhile Chief of Administration (Army), Maj Gen KAY Isiyaku is now Commander Defence Headquarters Garrison Abuja, Maj Gen AA Jidda from Defence Headquarters is appointed Coordinator Peacekeeping Operations at the Ministry of Defence. Maj Gen JO Oni from Army Headquarters Department of Army Administration takes over as Director Procurement Defence Headquarters from Maj Gen OA Akintade who becomes Corps Commander Ordnance Lagos, Maj Gen OW Ali from Defence Headquarters is now Director Army Physical Training Zaria.

Maj Gen EN Njoku remains at Defence Headquarters and redeployed as Director Communications, Maj Gen CG Musa from Nigerian Army Farms and Ranches Limited is appointed Commander Sector 3 Operation LAFIYA DOLE, Monguno while Maj Gen OT Akinjobi from Headquarters Sector 3 Operation LAFIYA DOLE becomes the Director Standards and Evaluation at Defence Headquarters.

Also, Brig Gen KA Kazir is to remain in Army Headquarters Department of Projects and Programmes and appointed Acting Executive Director of Nigerian Army Farms and Ranches Limited, Brig Gen AE Attu moves from Nigerian Army Resource Centre to National Defence College and appointed Acting Deputy Commandant, Brig Gen MT Usman from Headquarters 28 Task Force Brigade moves to Headquarters Guards Brigade Abuja as Commander taking over from Brig Gen UT Musa who becomes Acting Commandant Martin Luther Agwai International Leadership and Peacekeeping Centre Jaji, Brig Gen GO Adesina remains at the Department of Policy and Plans and redeployed as Acting Director Policy.

Similarly, Brig Gen LA Fejokwu from National Defence College is now the Acting Director Personnel Services at Army Headquarters, Brig Gen EAP Undiandeye from Army Headquarters Department of Army Transformation and Innovation becomes the Acting Director Foreign Liaison at the Defence Intelligence Agency Abuja, Brig Gen JY Nimyel from Nigerian Army Resource Centre Abuja takes over as the Commandant Amphibious Training School Calabar from Brig Gen OO Oluyede who is now Commander 27 Task Force Brigade Buni Yadi. Brig Gen PP Malla

moves from 82 Division Garrison Enugu to Headquarters 28 Task Force Brigade Chibok and appointed Commander.

Others are; Brig Gen OM Bello of Headquarters 6 Division Port Harcourt becomes the Commander 1 Brigade Sokoto, Brig Gen MA Etsu-Ndagi from Army Headquarters Garrison Abuja becomes the Commander 9 Brigade Lagos while Col RC Emeh from Defence Headquarters is appointed Assistant Director Army Physical Training at 3 Division Physical Training Group Jos. In the same vein, Col MO Erebulu who just completed a course at Higher War College Egypt is appointed Commander 2 Provost Group Ibadan, Lt Col SA Abimbola from Nigerian Army Operations Centre at Army Headquarters is appointed Commanding Officer 343 Artillery Regiment Elele whereas Lt Col SM Ahmed from 375 Artillery Regiment Baga becomes the Commanding Officer 332 Artillery Regiment Shendam, amongst others.

Meanwhile, the Chief of Army Staff, Lt Gen Tukur Yusufu Buratai whilst wishing all of them well in their respective appointments charges them to take their new responsibilities seriously and discharge all duties professionally with utmost loyalty to Service and Nation. All the appointments take immediate effect.

ARMY HEADQUARTERS HOLDS MAIDEN WORKSHOP FOR COMMANDERS IN OPERATION LAFIYA DOLE

The Army Headquarters Department of Training and Operations (DATOPS), today Thursday 25 July 2019, held its maiden workshop for Commanders, Commanding Officers and Staff Officers of Operation LAFIYA DOLE, on the concept of "Super Camp" held at Headquarters 25 Task Force Brigade (Super Camp 2) Damboa, Borno state.

Declaring the workshop open, the Chief of Army Staff (COAS), Lieutenant General Tukur Yusufu Buratai, represented by the Chief of Training and Operations (Army), Major General Enobong Udoh, charged the participants to take the workshop seriously, as the concept of the Super Camp is a force multiplier that allows for concentration of manpower and resources.

He further commended the participants for their sacrifices to the country and for being good ambassadors of the Nigerian Army.

Similarly, while making his welcome address, the Theatre Commander, Operation LAFIYA DOLE, Major General Benson Akinroluyo, appreciated the COAS for the new Super Camp concept, which he said will serve as launching pad for mobile offensive operations in containing and denying the Boko Haram Terrorists (BHTs)/ criminals freedom of action in identified areas across the theatre".

Major General Benson Akinroluyo, also stated that, the super camps would further boost force protection of troops while on camps, as well as enable them to project force through long distance patrols and ambushes to dominate their areas of operation.

Lectures were delivered by the Director Logistics Planning, Army Headquarters, Brigadier General Martins Waboke, on the topic: "Administration and Logistics Support of Nigerian Army Super Camp" and the Assistant Director Operations, DATOPS, Lieutenant Colonel I Waziri, who made a presentation on the lecture entitled "Understanding the Concept and Establishments of Nigerian Army Super Camps".

The workshop was quite interactive and the participants were also conducted on a guided tour of super camp Damboa, which later dovetailed into professional group discussion.

Participants were drawn from Headquarters Theatre Command, Operation LAFIYA DOLE, as well as Sectors 1, 2 and 3.

Present during the workshop include the General Officer Commanding 7 Division and also Commander Sector 1, Major General AB Bui, Commander Sector 2, Brigadier General IS Ali, Component Commanders, Theatre Training Officer, Brigade Commanders and other very senior officers.



24/7/365 Army Aviation Phoenix



Novelties of the military engineering were presented at ARMY-2019 Russian International Military-Technical Forum.

The Mi-35P, well-known both for specialists and public, was presented at the Russian Helicopters exposition. The aircraft's identifiable silhouette attracted attention and at the same time it generated questions of the helicopter experts. The intrigue was opened easily....

The legendary Mi-35P was manufactured both for the Soviet Army and for export. The history of Mi-24/35 type helicopters' combat application enumerates more than 30 military conflicts in different parts of the globe. These vehicles have become the first Russian helicopters specially designed for combat actions. Their structure was so fortunate that their modifications are still being operated.

Today the upgraded Mi-35P is still in the product list of Rostvertol PJSC which is a part of Russian Helicopters Holding, offered to the foreign Customers. The helicopter has kept the reliability of the basic Mi-35P and has got new advantages.

It is capable to be used in the following version as its predecessor:

- combat – to destroy tanks, armoured vehicles;
- assault – for transportation 8 paratroopers;
- medical – for transportation of 2 casualties and 1 medical attendant;
- transport – for transportation of cargo either inside cargo compartment (1500 kg) or on the external sling (2400 kg).

Nowadays the enterprise performs works on serial production of Mi-35P helicopters in renewed completion for export supplies. For this purpose MIL Moscow Helicopter Plant has developed design documentation for further upgrading of these helicopters.

On Mi-35P basic version the following equipment is installed:

- upgraded surveillance-sighting system with detection/identification range of up to 10/8 km;
- new digital flight complex (basing on PKV-8-35 autopilot), which will improve controllability, increase helicopter stability, computer-aided flying;
- Up-to-date navigation and electronic indication complex incorporating color MFDs enabling fully automated en-route flight assisted by digital integrated flight system.
- The basic version of the upgraded Mi-35P armament system includes 23-mm caliber movable nose gun mount, S-8 rockets, suspended containers housing 23-mm gun.





Even low-cost basic version of the upgraded Mi-35P helicopter is capable of performing any types of combat missions in the African continent

Yet the upgraded Mi-35P is provided with a wide range of optional equipment to increase combat mission application of the aircraft and to meet the requirements of potential customers.

In terms of helicopter armament system the aircraft can be provided with:

- 9M120-1 Ataka or Vikhr laser-guided missiles
- air-to-air missiles
- Bombing armament of 500 kg caliber
- 122-mm S-13 unguided rockets
- 12,7-mm machine gun can be installed in the cargo compartment

In terms of helicopter protection from the man-portable air defence systems the aircraft can be outfitted with counter-measure system.

As far as radio and electronic equipment is concerned the aircraft has a provision to install short-range navigation systems.

Ground and flight testing of the upgraded Mi-35P incorporating modernized equipment is currently on the way at the premises of Rostov Helicopter Plant.

As the trials are completed the production of the modernized Mi-35P will be launched at Rostvertol PJSC facilities.

So in the market of transport-combat helicopters Rostvertol Company has unveiled the modernized Mi-35P helicopter capable of performing any combat mission subject to the specific requirements and budget of the customer.

According to the account of the airshow visitors the helicopter has been revived same as Phoenix bird to become even stronger, more powerful and invincible.



Russian Civil Arms to target African continent

By Sergey Kirshin



Russian small arms have been of great interest at Africa Aerospace & Defence exhibition

During the Army 2019 International Forum held near Moscow, the national weapons trade mediator Rosoboronexport announced a number of contracts with the international customers for the small arms supply of military and civil application.

“The Russian industry produces full range of close combat weapons which have proved their indispensability in actual combat situations, thereby earning reputation and respect in many countries worldwide. The new contracts not only demonstrate strong and steady demand for the Russian-made small arms and grenade launchers and related ammunition, but also indicate global trend of increasing demand for effective equipment to counter crime and terrorism. Rosoboronexport is ready to meet this demand in full,” said Rosoboronexport’s Director General Alexander Mikheev.

Russia has been actively promoting national civil and service weapons on the world market. The range of products includes the ORSIS T-5000 rifles, Saiga-9 and Saiga-12 carbines, MR-18 shotguns, Viking pistols among the many. The State mediator is confident that African continent is one of the most promising market for all the systems above as well as for the Vepr carbines, civilian versions of the Tigr sniper rifles.

According to Alexander Mikheev, the first contracts on the matter have been already signed with a number of unspecified nations. It looks like Russia’s counterparts were not named in a view of the existing USA sanctions to prevent unpleasant consequences for the buyers.

After the adoption of amendments to the Russian Law on Weapons in 2017, Rosoboronexport was granted the right to export civil arms to extend its traditional scale of the military-grade, law enforcement and security forces ones which has been delivered to the partner countries over decades. The new situation has simplified a procedure to deliver all range of combat and civil small arms from a single source.

It looks the US unfair sanctions won’t prevent the customers from various African nations including police, special forces and even hunting and shooting clubs to purchase the Russian small arms.

Meet the characteristics of the most popular Russian civil weapons below.

Vepr-12 VPO-205-01

Smoothbore Weapons. Combat Semiautomatic Smoothbore Carbines.

VPO-205 is currently one of the most effective tactical smoothbore rifles, capable of accomplishing a wide range of missions facing security services. Its modular design allows tailoring the weapons to the specific needs of the customer, while the availability of special brackets ensures the detachable equipment is mounted in a manner that meets the requirements of the user. The weapon is reliable and demonstrates flawless operation when firing all types of 12 Gauge cartridges. The steel frame patterned after the RPK light machine gun provides the weapon’s immunity to deformations, as well as its fault-free operation in various adverse conditions.



Vepr-12-205-01

Main characteristics

| | |
|-------------------------------|----------|
| Barrel length, mm | 570 |
| Caliber | 12x76 mm |
| Sighting range, m, max | 100 |
| Full length, mm | 1,117 |
| Length, buttstock folded, mm | 865 |
| Barrel length, mm | 4.4 |
| Empty weight, kg | |
| Magazine capacity, cartridges | |



Saiga-9

SAIGA 9

Self-loading carbine

The Saiga-9 self-loading carbine is a derivative of the PP-19-01 Vityaz-SN submachine gun. Its design utilizes the blowback operation principle. The weapon is fitted with a metal skeletal folding stock, plastic fore grip and a pistol grip. It features an open sight. The carbine has a receiver-mounted Picatinny rail to allow for optical and collimator sights to be installed at user's discretion. A lock has been introduced in the design of the trigger to exclude butt-folded firing.

Main characteristics

| | |
|-------------------------------|-----------|
| Cartridge | 9x19 |
| Effective range, m | min 100 m |
| Overall length, mm | 827 |
| Length, butt folded, mm | 589 |
| Barrel length, mm | 367 |
| Empty weight, kg | 3 |
| Magazine capacity, cartridges | 10 |

TIGR 308

Carbine

The Tigr 308, ver. 02, is patterned after the SVD sniper rifle. It has a plastic skeletal butt with a rotatable cheek pad. The fore grip is made of plastic. The receiver has a side rail for optical sights. The weapon features an open sight. The barrel is fitted with a small-size flame suppressor.

Main characteristics

| | |
|-------------------------------|--------------|
| Cartridge | .308WIN |
| Effective range, m | Max 300 |
| Overall length, mm | 1120 or 1175 |
| Barrel length, mm | 565 or 620 |
| Empty weight, kg | 3.9 |
| Magazine capacity, cartridges | 10 |



TIGR 308

Milkor headlining at AAD 2020



Milkor is the diamond sponsor for the 2020 edition of the Africa Aerospace and Defence (AAD) exhibition to be held at Waterkloof Air Force Base. This is part of the company's strategy of expansion across the air, land, sea and cyber domains.

AAD is Africa's largest defence show. In 2018 it attracted nearly 33 000 trade visitors, 55 000 air show visitors and 415 exhibitors. 128 aircraft were either on static display or took part in the air show. For the first time, AAD was opened by South Africa's President, Cyril Ramaphosa.

Milkor had an impressive presence at the September 2018 edition of AAD, launching multiple new products, and plans to increase its product range in the future. Milkor is aiming at becoming a major global supplier by offering a wide range of hardware and services. As part of its global marketing drive, Milkor is exhibiting at some of the world's biggest and most important global defence trade shows, including shows in Australia, the United Arab Emirates, Nigeria, Ghana, Brazil, Peru, Bahrain and the United Kingdom to meet specific end-user requirements in these regions.

The company will contribute to the keynote addresses at the conferences in Ghana (IMDEC) and Nigeria (CAMSA),

which will focus on maritime security and the importance of protecting the exclusive economic zones in the regions against illegal activities. At both the CAMSA (Coastal and Maritime Surveillance Conference Africa) and IMDEC (International Maritime Defence Exhibition and Conference) events, Milkor will address the issue of persistent maritime surveillance to combat piracy, illegal fishing and a range of maritime problems. This can be achieved through a network of long-range patrol craft and unmanned aerial vehicles. Milkor will also talk about the potential of new high-speed, long-range patrol and interception craft to secure the Gulf of Guinea and a review of its modern high-speed patrol craft.

The Middle East is a key market for Milkor, which has received numerous requests for information on their products from this region and the business development team have been traveling extensively to this region to in order to assess and satisfy these requests. Milkor is currently in talks with a Middle Eastern country regarding its upcoming 8x8 armoured vehicle.

The new 8x8 is expected to take around 14-18 months to mature. The new vehicle will primarily be a combat vehicle armed with a turret that can fit a 20 mm or 30 mm cannon, machinegun, automatic grenade launcher or even small missile launchers, although it can be tailored to customer requirements. The main focus will be on an infantry combat vehicle, although there will be a personnel carrier option available as well.

The 8x8 vehicle is part of Milkor's decision to diversify on a grand scale, going into armoured vehicle production, developing unmanned aerial vehicles, sniper rifles, patrol boats and cyber security solutions. The company is looking to create the same reputation for its other products as it has built up over the years for its grenade launchers, which was for decades its core focus (it has sold some 70 000 launchers around the world).





Milkor's first armoured vehicle, a 4x4, debuted in 2018 and already has launch customers. This APC is based on a commercial driveline, making maintenance simpler. A V-shaped hull provides mine protection and the Milkor 4x4 has either B6 or B7 level ballistic protection. The vehicle can take eight passengers with two people up front. Various weapons systems will be offered for the vehicle, including a remote controlled weapon station with automatic grenade launcher, or manned turrets, being completely customer dependent. What distinguishes the Milkor 4x4 from other vehicles is that it is slightly wider than most competitors. It is highly customisable – it can be built in command, ambulance, police and riot versions.

Expanding into the small arms domain, Milkor is developing a range of sniper rifles in response to customer requests. There will be two product lines for both civilian and military customers. The first series will be large calibre (12.7 mm) for anti-material operations while the second series will be for anti-personnel sniping and will be up to .338 calibre.

Milkor Marine is well progressed in the development of its MN Centurion patrol boat, which is conducting validation trials. This 12 metre long-range patrol craft is a key element of the Milkor naval system which comprises of multiple manned or unmanned patrol craft integrated with Milkor's long-range unmanned aerial vehicles (UAVs) to achieve persistent surveillance patrol over large areas, together with an interception capability.

The current version is 12 metres long, but the design can be shrunk down to 7 metres or expanded to 30 metres. This fast patrol vessel uses hydrofoils to give a top speed approaching 54 knots (100 km/h), and improved range compared to conventional vessels. Various weapon options will be available for the stealthy vessel.

On the aviation front, Milkor Aerospace has developed three UAVs. This includes the hand-launched 1.8 metre wingspan MA18, the 6 metre wingspan MA80 and the 12 metre wingspan MA380. The UAVs can be fitted with a variety of mission equipment, including electro-optical/infrared sensors including Epsilon and Hensoldt Argos optronics, synthetic aperture radar (SAR) and communications/signals/el

ectronic intelligence payloads.

Milkor is now focussing on developing a small missile system for its UAVs. The company has partnered with various suppliers on the weaponisation of its aircraft, and the MA380 can be fitted with four guided missiles. Further UAV developments are focussing on improving engine performance for enhanced speed and range. This should make Milkor's UAVs more attractive to defence and security customers who want either armed or unarmed aircraft.

In the cyber domain, Milkor offers a wide range of solutions, from cyber intelligence to asset/data protection and cyber security capabilities that allow hackers/intruders to be tracked and intrusions reacted on. Part of Milkor's value proposition is the security operations centre (SOC), which runs 24 hours a day, seven days a week, constantly monitoring the security environment and systems.



The Defence And Military Veterans Budget Vote 2019



Introduction Of The Debate On The Defence And Military Veterans Budget Vote 2019 In The National Assembly, By Hon Nosiviwe Mapisa-Nqakula, Minister For Defence And Military Veterans, 17 July 2019, Parliament, Cape Town

It is an honour to present the Defence Budget Vote 19 on this first sitting of the 6th Parliament following the recent National General Elections. I congratulate Deputy Minister Thabang Makwetla on his return to this portfolio. I am confident together we will make a formidable team leading our Ministry of Defence and Military Veterans. I also extend a word of welcome to the newly established Portfolio Committee and its Honourable Chair, Cyril Xaba. It is with deep sadness that we report, and I hope that this House will mourn with us at Defence and within the ranks of the SANDF, the passing of Military Veteran Ike Maphoto, one of our stalwarts and the veteran of Umkhonto we Sizwe. I welcome students from Siviwe Special School in Gugulethu present with us today in the gallery. This school has been adopted by the SA Navy.

Chair, Ours is a vast portfolio, being the sole establishment with a Constitutional mandate for the defence of our country's national sovereignty and territorial integrity. In presenting the 2019 Budget of the entire Defence portfolio, we hope we shall raise the confidence of the South African public. Its

support is sought to enable us to fully execute our mandate. Further, we are appearing before this house in the confines of a severely constrained national fiscus, which has had a devastating impact on the conduct of our business and the fulfilment of our obligations. Our presentation will give you a bird's eye view into the defence portfolio and community of the military veterans, as well as what plans are in place and being executed to ensure the social well-being of military veterans, as well as the attendant challenges.

Chair, This morning we recall that Section 85(1) and (2) of the Constitution vests the executive authority of the Republic in the President and which is exercised together with other Cabinet members. Section 92(1) of the Constitution holds us responsible for the powers and functions as may be assigned by the President, and in subsection (2) the Constitution further holds us accountable to Parliament for the exercise of powers and the performance of functions. Further, Section 202(2) of the Constitution provides that command of the Defence Force must be exercised in accordance with the directions of the Cabinet member responsible for defence, under the (executive) authority of the President. Chair, It is thus pertinent to note that this Defence Budget Speech today is consistent with my Constitutional duty to provide strategic direction to the entire Defence Function. And it is their moral and legal obligation to execute my strategic direction in the year that lies ahead.

Chair, It is vitally important to reflect on the fundamental contribution that Defence makes to the Sovereignty of the Republic of South Africa and the Authority of the State. I must remind the House of Section 227(1)(a) of the Interim Constitution (1993) which pronounces that one of the functions of the Defence Force is: "For service in the defence of the Republic, for the protection of its sovereignty and territorial integrity". Chair, Consequently, we have developed a long-term strategic view focused on specific threats to the Sovereignty of South Africa and the Authority of the State that I must bring to your attention. South Africa's borders are the physical manifestation of the country's national sovereignty.

South Africa seeks to build safer communities, fight corruption and promote integrity through inter alia protecting the country's borders. We have continued our efforts to enhance the safeguarding of the land borders and airspace and preventing the flows of illicit goods and illegal immigration that compromise the RSA economy. The National Security Strategy requires that twenty-two (22)

Army sub-units and the support thereto be deployed for border safeguarding, and I wish to restate that to date there has been insufficient funding to realise this. The challenge in the maritime environment is crime, illegal exploitation of maritime resources, piracy and the uncontrolled movement of people and goods at sea. With more than 90% of its international economic activity being reliant on maritime trade, the protection of these routes for commercial shipping is of vital national interest to the nation and an international responsibility.

During his February 2019 SONA, the President indicated that we will continue to advance peace on the Continent and across the globe, taking forward Nelson Mandela's vision of a peaceful, stable and just world. In these circumstances we strive towards sustaining long-range maritime and air patrols in the Mozambique Channel and to expand such patrols to the West Coast. South Africa seeks to promote greater peace, security and stability in the Region and elsewhere on the continent in the fulfilment of Madiba's vision. The Defence Force makes a vital and unique contribution to these diplomatic efforts. Today, South Africa remains a significant contributor to peace keeping operations on the Continent and we continue to have a significant presence in the DRC through MONUSCO and the Force Intervention Brigade (FIB). Our Battalion within the FIB was commanded by a female, Lieutenant Colonel Tiisetso Sekgobela, [INVITE TO STAND] who led our soldiers successfully through a number of battles. Additionally, Lieutenant Dimakatso Raisibe Maila [INVITE TO STAND] served as the only female Platoon Commander in the FIB.

Lieutenant Colonel Stefan King [INVITE TO STAND] for his display of remarkable courage under enemy fire, which earned him the United Nations Captain Mbaye Diagne Medal for Exceptional Courage. His actions, and those of his crew in this high-threat situation, is the hallmark of the valour and battle-skills that we strive for in our armed forces. Chair, We continue to conduct search and rescue, disaster relief and humanitarian operations across the home-front and in neighbouring countries when called upon. Of particular note has been our recent response to the regional disaster caused by cyclone IDAI as far afield as Mozambique and Malawi. Air assets and medical staff of the South African National Defence Force were deployed in a Disaster Relief Operation under Operation Chariot.

The Chaplain-General, as the spiritual leader of the SANDF, facilitated a team of religious leaders to Mozambique to assess the damage, offer spiritual and moral support and determine the mobilisation of support through the South African Council Churches. Let me remind the House that the

SANDF has carried out these interventions without reimbursement. Chair, The growing threat of terrorism and fundamentalism by extremist groups is looming large and is a clear and present danger on the Continent. South Africa is not immune to this threat, which has increased over the last few years with groups continuing to have the ability to destabilise multiple countries at the same time. Like terrorism, cyber threats dominate the international security agenda with States pursuing measures to secure their sovereignty and monitoring these trends on an on going basis.

South Africa needs to adapt with the rapidly changing electronic environment through appropriate security measures. Organised and violent crime threaten and challenge the sovereignty, integrity and authority of the State, as well as the development and social cohesion of society in general. This cannot be allowed to persist. Chair, It is important for government to ensure that all South Africans are and feel safe at all times in their homes, streets and work places. Honourable Members, The Commander-in-Chief has ordered the SANDF to deploy in cooperation with the SAPS in the Western Cape Province to combat crime and stabilise the security situation through intelligence-led operations. The ongoing intelligence assessment will determine the right time for the withdrawal of the SANDF. We welcome the commitment by the President to the establishment of a National Security Council as was announced in February 2019. This will ensure that we all make a significant contribution by coordinating and integrating our national responses to pertinent threats and emergent crises.

Our Department will continue to support the broader economic and developmental initiatives of the 6th Administration. Defence will continue to strive to support the Defence Industry as a discrete sector of the economy, through meaningful participation in the President's Public-Private Growth Initiative, which seeks to harness the potential of the private sector in contributing to renewal, investment and growth in the country. The resolving of uncertainty around Denel, and the impact thereof on smaller but critical industry players who hold sovereign technologies, continues to be an issue of huge importance for Defence. These smaller, but very strategic members of the industry supply chain are under extreme pressure in their efforts to survive. Many are poised to exit the defence industry if there is no immediate and urgent intervention. Furthermore, uncertainty in the industry has led to many skilled engineers being recruited by defence industry players outside of the Republic.

Chair, As indicated in my speech in this House last year, we have launched the Defence Industry

Charter. We have taken the deliberate decision to focus the Defence spend on capital projects domestically and continually seek “spin-off” technology benefits from Defence to the mainstream economy of South Africa. To this end, we are also working with the Defence Industry to develop a Defence Industry Business Plan from 2019 – 2024. This Business Plan seeks to add jobs to the economy, grow export earnings and attract foreign direct investment. A critical intervention hereto must be increased administrative efficiency in the Arms Control System and the removal of cross-cutting inhibitors to doing business in all the economic sectors in South Africa. Using the expertise vested in Armscor, we are developing models to optimise industry-value within a diminishing capital budget, with a particular emphasis on the development of win-win DOD expenditure plans to ensure the survival of high-risk / high-value members of industry.

In Advancing Social Transformation, Youth, Education & Skills Development, the Department of Defence runs a number of Youth Programmes, such as the Young Falcons with a specific focus on inculcating patriotism and discipline, whilst also assisting other Departments with youth development initiatives. Furthermore, in recent times we have:

- Intervened to stabilise the crisis at the Provincial Hospital in Mahikeng in the North West Province and rendered essential services through the deployment of health professionals.
- Intervened to contain the raw sewerage spills into the Vaal River System through repairs of the sewage infrastructure in the Vaal River Project.
- Deployed engineers to assist the Ditsobotla Municipality in the North-West with regards to sewage system failure.
- Built bridges in those rural areas where there is an absence of infra-structure in isolated communities.
- Supported other institutions in fire-fighting, mountain and maritime search and rescue operations.

Chair, Defence continues to contribute to poverty alleviation and economic growth. As example, in recent times we have:

- Supported Operation PHAKISA towards unlocking the Ocean’s Economy, in particular providing a secure environment for this accelerated economic growth initiative.
- Expanded Project KOBATLALA to pursue the defence decentralised procurement of goods and services at a local level to be a

catalyst for SMMEs development and job creation.

- Supported the Department of Agriculture, Forestry and Fisheries in protecting South Africa’s wildlife and marine resources.
- Supported the National Parks Board in the protection of rhinos and other wildlife against criminal syndicates.
- Contracted Damen Shipyards to build inshore patrol vessels and SA Shipyards in Durban to build a new hydrographic survey vessel in support of South Africa’s international obligation to Safety of Life at Sea.

Over the last few years the Department of Defence has been forced to continuously adjust its plans downwards in response to the declining budget. The Defence Force is becoming progressively more unsustainable in terms of declining defence allocations and we have now reached the point where the Republic must decide on the kind of Defence Force it wants and what it can afford. I must regrettably inform you that this situation has not changed and has in fact become increasingly worse. We are being forced to adopt a short-term view with an increasingly constrained value proposition to South Africa and its people. Strategically, we are now becoming forced to transition from being mandate-driven to being funding-driven. Defence can only perform to the extent that it is resourced and funded. The significant reduction in the defence allocation has resulted in an ever-decreasing ability to execute ordered defence commitments.

Honourable Members. I must now ask the question whether or not the house is satisfied that the current resourcing of the Defence Force is consistent with the obligations placed on it by the Constitution? Last year I reported a 2018 MTEF baseline reduction of R18.2 bn. The Letter of Allocation for the 2020 MTEF further demands an additional R4.7 bn reduction, the majority of which lies in the Compensation of Employees (COE). This reduction will directly impact on the training, equipment, sustainment, core capabilities and operational output of the Defence Force. The above amounts to a nominal R22.9 bn reduction in the defence allocation over a five-year period.

Honourable Members, I am at pains to inform you that the above reductions may be potentially compounded by an even greater envisaged baseline reduction scenario for Defence of 5% for 2020, 6% for 2021 and 7% for 2022 . This may equate to an additional reduction of R9.6 bn from 2020 to 2022. The projected shortfalls in the COE have the following implications:

- During the current Financial Year, a shortfall of R2.9 bn can possibly be funded from the operating budget.
- Over the MTEF, if the scenarios are factored in, then the shortfall increases to R4bn, R4.5 bn and R5.5 bn respectively with no provisions in the operating budget to cover the shortfalls in the outer two years.

Chair, Furthermore, this House should be very concerned that the funding for defence capital equipment is greatly reduced from 2021 onwards with dire consequences for the South African defence industry its supply-chain. Despite the guidelines I gave during my speech last year, the rate of decline has accelerated beyond our ability to control and absorb these on going cuts. As also previously reported, it is no longer “business as usual”. In terms of audit qualifications. I have instructed the Accounting Officer and Chief of the SANDF to monitor the action plans developed by Services and Divisions and to curb recurring findings. These will be monitored by myself on a continuous basis during my monthly interactions with the management of the Department.

Chair, I am concerned about a matter involving a member related to the wearing of religious accoutrements together with official SANDF uniform. Against this background, I have requested the Chief of the SANDF to find an amicable solution at the earliest possible time and report to me. The Reserve Force made an enormous contribution to the operational performance of the Defence Force during the last financial year by providing over 14 000 members for various tasks. In response to my directive in this House last year, we have developed a new Reserve Force Service System that is now ready for implementation. A decision has been taken to hold a Reserve Force Indaba in September 2019. After a lengthy consultation process, I have signed into effect the name-changes of the Reserve Force Units in the South African Army. These names now reflect a healthy balance of the South African military heritage. We are encouraged by the number of professionals and highly skilled persons in South Africa who volunteer to serve in the Reserve Force.

I will continue to engage with the Reserve Force Council on their mandate and their support to the SANDF Reserves. Chair, The Department of Military Veterans has embarked on reviewing legislation and its efficacy in delivering effectively and efficiently to military veterans and their dependants. We have taken a decision to amend the Military Veterans Act to clarify the definition of a “Military Veteran” and to introduce Regulations to address the “Means Test”. The Deputy Minister of Defence and Military Veterans Thabang Makwetla

will elaborate further. Chair, Armscor has worked tirelessly with other stakeholders to establish the Defence Sector Charter for those wanting to participate in an inclusive and transformed defence industry, including Military Veterans and the Youth. The Defence Industry Fund provides a financial solution to the challenges that most SMMEs face. The primary focus of Armscor remains the delivery of complex acquisition and research and development expertise to the South African National Defence Force (SANDF), including test, evaluation and quality assurance. Armscor ensures that young people, especially those from rural areas, are capacitated with science, engineering and technology opportunities to succeed and be enabled to meet the global demands of the defence industry.

Between Armscor and the industry, over 123 science and engineering university bursaries have been awarded to new students this year. Chair, The Castle Control Board manages the Castle of Good Hope as a heritage, tourism and public education centre. I am proud to say that the Board has now truly managed to change the rigid image of the Castle as a symbol of armed colonial conquest and apartheid oppression into one of reconciliation, healing, learning and nation-building. It now has truly taken the Castle to the people and brought the Castle to the people of the world! Chair, The five-year term of the first permanent Defence Force Service Commission has ended. We have appointed four new Commissioners with effect from 01 January 2019, who join the three serving Commissioners who were appointed with effect from 1 May 2015. I intend to appoint three additional Commissioners, cognisant of gender parity in the Commission. I have noted with appreciation the recommendations of the Commission; however fiscal constraints have made it difficult to implement some of these.

Chair, The Office of the Military Ombud is a critical mechanism of civil oversight. On the review of complaints, the Military Ombud’s recommendations give corrective direction to the Defence Force. Of the 525 complaints before the Military Ombud, a total of 246 have been finalised. The term of the Military Ombud has come to an end. We wish Lt Gen T.T. Matanzima well and we are in the process of appointing a new incumbent. Chair, A comparative analysis of our SADC partners indicates how under-funded the SANDF is. Regional defence budgets are increasing whilst our defence budget is declining. I therefore repeat my earlier question on whether or not the House is satisfied that the current resourcing of the Defence Force is consistent with the obligations placed on it by the Constitution? I request the Honourable Members to approve the 50,512 billion-rand that has been allocated to the Department of Defence in terms of Vote 19 this financial year. I thank you.

African Security magazine reports on the International Maritime Defence Exhibition and Conference, (IMDEC)



Under the patronage of Chief of Naval Staff Rear Admiral Seth Amoama and the Ghana Navy, On the 24th & 25th of July, in Accra, leaders of African Naval Forces gathered at the International Maritime Defence Exhibition and Conference, (IMDEC) in Ghana, to discuss illegal oil-bunkering, piracy, unregulated and unreported fishing, smuggling, human and drug trafficking, illegal bunkering and crude oil theft.

The event was a part of Ghana's 60 years of Naval Excellence celebration and featured the largest gathering of Africa's maritime stakeholders.

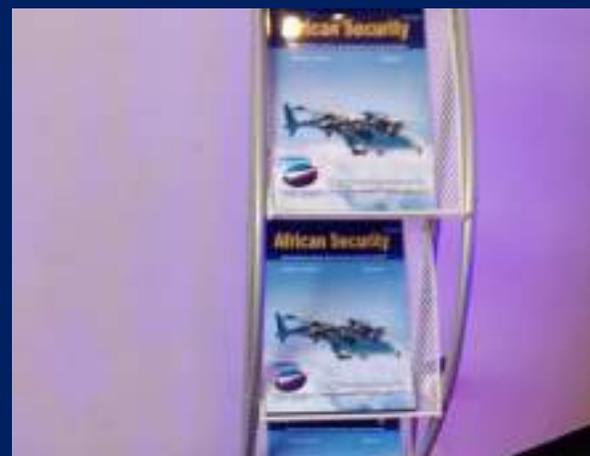
In the first quarter of 2019, IMB reported 38 incidents of piracy and armed robbery at sea, representing 28 fewer incidents than the first quarter of 2018 (66). IMB's Piracy Reporting Centre detailed that 27 vessels were boarded; seven vessels were fired upon and four attempted attacks occurred in the first quarter of 2019. No vessels were reported as hijacked for the first time since the first quarter of 1994.

The Gulf of Guinea represented a high number of piracy and armed robbery attacks at sea, with 22 incidents reported in the first quarter of 2019. The region also accounted for all of the worldwide crew kidnappings as 21 crew members were kidnapped across five separate incidents. Incidents were reported in the coastal countries, of Benin, Cameroon, Ghana, Ivory Coast, Liberia, Nigeria and Togo in the first quarter of 2019, according to the International Maritime Bureau report.

Below are some of the key Defense executives in attendance:

- Hon. Dominic Nitiwul, MP Minister of Defence Ghana
- Rear Admiral Seth Amoama, Chief of Naval Staff, Ghana Navy
- LT Gen Obed Boamah Akwa, Chief of the Defence Staff Ghana
- Major General William Ayamdo, Chief of Army Staff Ghana
- Air Vice Marshall Frank Hanson, Chief of Air Staff Ghana
- Major General Moundhey G Ali, Commander Nigeria Army Special Forces
- Vice Admiral Ibok Ete Ibas, Chief of Naval Staff, Nigeria Navy
- Rear Admiral Koi Alexis Maomou, Chief of Staff, Guinea Navy
- Rear Admiral Momar Diagne, Chief of Naval Staff, Senegal Navy
- Captain Kossi Mayo, Chief of Naval Staff, Togo Navy
- Captain Albert Ezin Bado, Chief of Naval Staff, Benin Navy
- Admiral Sunil Lanba, Chief of Naval Staff INDIA
- Admiral James Foggo, Commander U.S. Naval Forces Europe and U.S. Naval Forces Africa

As most Defense & Naval forces in Africa have been given budgets to advance their current equipment and fleet the event showcase a wide range of suppliers that can contribute to maritime surveillance and security. Some of the companies exhibiting at the event include: Lurssen, MILKOR, Saab, RAMSYS, AIRBUS, Paramount Group, Israel Shipyards, Ixblue, Hughes, Ocea, Fincantieri, Mazagon Shipbuilding, Marsun Public Company Limited, OFB, Bharat Electronics, Twiga, Ares Shipyard, TAIS, MILPRO, Man Diesel, Boomeranger, to name a few.



Micro-Satellite Launching System Will Be Roketsan-Made



The Micro-Satellite Launching System (MSLS) that will give Turkey independent access to space will be developed by Roketsan under a contract signed between the Presidency of Defence Industries (SSB) and Roketsan in 2018. Once the MSLS Development Project launched under the contract has been completed, it will be possible to put satellites with a maximum weight of 100 kilograms into a low earth orbit at a minimum altitude of 400 kilometers. In addition to the development of the Micro-Satellite Launching (MSL) Vehicle, Roketsan will also build testing and production facilities as well as a launch base. Information about the current state of works related to MSLS will be shared at the Roketsan stand at IDEF'19.

Roketsan has been continuing its efforts to develop a satellite launching system since 2007. Roketsan's Department for the Design of Satellite Launching Systems set up in 2008 was the first department established in Turkey within a defence company charged with undertaking projects concerning satellite launching systems. The MSL Project Preliminary Conceptual Design Period

(Period 1) that began in 2013 under an agreement concluded between the SSB and Roketsan related to the development of a Satellite Launching System to meet a requirement of the Air Force Command was completed in 2014. Roketsan's activities related to space are being carried out by the Space Systems Directorate established under the Department of Advanced Technologies and Systems Group founded in 2015.

Roketsan, says that satellite launching systems are a natural outcome of the company's growth: "Space projects represent an area in which Turkey has proven its presence, and Roketsan is the only Turkish company developing launch systems, as the most critical components of these projects. With an awareness of the responsibility related to this mission, we have been making preparations for many years. We have significant resources and the necessary know-how for the development of such systems, although we are aware that there is a lot that we need to learn and try, and this is why we continue our efforts at an increasing pace."

Roketsan was founded in 1988 as a company affiliated with the Turkish Armed Forces Foundation, and with the stated goal of becoming a leading organization in Turkey in the design, development and manufacture of rockets and missiles. Starting its journey with licensed production based on technology transfer, Roketsan's first project was the manufacture of the Stinger missile propulsion system within the frame of the Stinger European Joint Production Project. Soon after this project, the company rose to become one of the world's leading companies in the field of rockets and missiles, with the ability to develop unique and indigenous products within a short period of time. Guided by its vision "to become a leader in rocket and missile systems, from the ocean depths to outer space, Roketsan is presently conducting its operations, which include the design and manufacture of rockets, missiles and guided munitions with different properties, and their launch and guidance systems, rocket fuels, seekers, guidance and control systems, fuses, warheads, mechanical components, algorithms and software, and their integration with ground, air, naval and submarine platforms, the provision of logistical services; the design and manufacture of ballistic protection systems; and the development of satellite launching systems at its facilities in Ankara with a total area of 5.7 million square meters where it employs more than 2,700 people. After securing the 98th position on the Top 100 list compiled by Defense News in 2017, which details the largest 100 defence companies in the world for the year, Roketsan has now moved up to the 96th position in 2018. Roketsan continues to meet the various needs of the Turkish Armed Forces and of friendly and allied nations through indigenous means.

Roketsan Provides High Precision to 300 mm Missiles through TIGER

Developed and manufactured by Roketsan, the TRG-300 (TIGER) Missile is a 300 mm weapon system that offers high accuracy thanks to its special guidance system. Capable of providing timely, accurate and heavy fire support for maneuvering units, the TIGER missile can hit high priority targets at ranges of between 30 and 120 kilometers.

A guidance system equipped with an Inertial Navigation System (INS), backed by a Global Positioning System (GPS), is behind TIGER's ability to hit its targets with high accuracy. Placed in an insulated pod, TIGER missiles can be stored,

carried, and launched from an inside-the-pod configuration.

TIGER missiles can also be fired from other platforms with an interface compatible with the TIGER Weapon System and multi-purpose multi barrel rocket launchers (MBRL) manufactured by Roketsan.

Being able to provide effective fire support for maneuvering units at both day and night, in all kinds of weather and over any terrain, the TIGER Missile Weapon System is integrated on a 6x6 tactical wheeled vehicle. TIGER is thus ensured high maneuverability not only on roads, but also on rough terrain, boasting also a robust superstructure that enhances system reliability.

With its long range and heavy fire capabilities, TIGER can assume critical roles in a wide spectrum of missions, ranging from peace support operations to attack by fire, in addition to standard tactical missions in support of maneuvering forces, as with the KHAN Weapon System.



The TIGER Weapon System can successfully apply shoot and scoot tactics as a result of its high-tech navigation and automatic aiming systems integrated into the weapon management system. The section commander can carry out a firing with only a two additional crewmen, including the loader and driver, thanks to the system's high level of automation.

The TIGER Missile Weapon System has all the necessary mechanical, electrical and electronic subsystems for a wide range of firing missions, including preparation, planning, tasking, ballistic calculation and aiming. The system can be designed on different brands and models of vehicles, and with different subsystems, such as radios, power systems and navigation systems, taking into account the logistical infrastructure and requirements of the user.

Roketsan stresses that the TIGER Missile and TIGER Missile Weapon System are clear indicators of its innovations: "The TIGER Missile and TIGER Missile Weapon System are prime examples of how we can successfully convert a product that we originally designed and developed without a guidance system, into a system that is capable of responding to the requirements of a modern theatre of war, making use of our evolving technological infrastructure.

Within this project, Roketsan has not only integrated a guidance system that provides high precision to the missile, but has also turned it into a weapon system that meets all user needs.

Our users are extremely satisfied with our missile and weapon system."

| Technical Specifications of the TRG-300 (TIGER) Missile | | |
|--|---|---|
| | BLOCK – I | BLOCK - II |
| Diameter | 300 mm | 300 mm |
| Weight | 585 kg | 585 kg |
| Range | 30 – 120 km | 20 – 90 km |
| Guidance | GPS* + GLONASS Aided INS* | GPS* + GLONASS Aided INS* |
| Control | Aerodynamic Control with Electromechanical Actuation System | Aerodynamic Control with Electromechanical Actuation System |
| Propellant Type | Composite Solid | Composite Solid |
| Warhead Types | HE* + and Steel Ball | HE* + and Steel Ball |
| Warhead Weight | 105 kg | 150 kg |
| Warhead Effective Radius | ≥ 70 m | ≥ 70 m |
| Fuze Type | Point Detonating and Proximity | Point Detonating and Proximity |
| Accuracy (CEP) | ≤ 10 m | ≤ 10 m |
| NATO Stock Number | 1410 27 063 4274 | |

***GPS: Global Positioning System**

***GLONASS: Global Navigation Satellite System**

***INS: Inertial Navigation System**

***HE: High Explosive**

Tight schedule for the Leonardo M-345 program



T-345A, a first in January 2017, including the first five aircraft, and a second on June 12, 2019 (of 300 million Euro), including 13 aircraft, initial provisioning (such as ground support equipment, and initial spare parts), the Ground Based Training System, and the Integrated Logistic Support, including an initial period with 'turn key' approach.

The program involving the new M-345 HET (High Efficiency Trainer), the latest jet trainer of the Leonardo's family, is proceeding with a good pace. On December 21, 2018, however, took the air for the first time the first real M-345, a pre-series aircraft, destined to complete the test program.

The flight envelope explored included speed up to 250 kts CAS (Mach 0.65), ceiling up to 35,000 ft, and load factors up to + 5 / - 2g. After this phase, the aircraft was grounded for a layup aimed at upgrading the Flight Test Instrumentation to support Phase 2 of testing, equipment upgrade, other minor modifications, and the final painting. Everything was completed just few days before the participation to the recent Paris-Le Bourget Air Show, on June 17-23.

With around 40 flight in less than two months the M-345 program walks briskly to the first delivery to Italian Air Force in 2020.

According to the company, the first data confirm that the M-345 offers the best performances compared to its direct competitors.

The Phase 2 of the test program is scheduled to be carried out between July and November 2019 in order to obtain the Type Certificate within the end of the year.

Currently the Italian Air Force has signed two contracts for the model designated

In total, the Italian AF has set up a requirement for 45 aircraft, including those that have to be assigned to the "Frecce Tricolori" aerobatic team, replacing the T-339 also in that unit.. The development and introduction into service timescales of the T-345 must be carried out in the full respect of the current schedule. It seems that several countries have shown real interest in the M-345, and according to the first test experiences, it seems that this trainer can really match the turboprops competitors either in terms of tag price, or in terms of operational costs, being superior in performances. This was the Leonardo target since the beginning, and it seems that, especially thanks to the adoption of the new Williams turbofan engine, the promises has been maintained.



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NAVAL SHOW GOES WELL BUT FUTURE IS UNCLEAR

By Sergey Kirshin, Yury Laskin



Admiral Kasatonov frigate project 22350

The 9-th International Maritime Defense Show (IMDS-2019) took place from 10 to 14 July of 2019 in St.-Petersburg under the Russian Government decree. The IMDS-2019 Organizing Committee was headed by Deputy Prime Minister Yury Borisov. Event got full support of Russia's Ministry of Defense, Ministry of Industry and Trade, Ministry of Foreign Affairs, Federal Service for Military-Technical Cooperation, Rosoboronexport and Government of Saint Petersburg. The Exhibition Operator was Morskoy Salon Co. Ltd.

353 exhibitors, including 28 foreign companies from 19 countries displayed their products at the exposition which occupied three halls of Lenexpo Exhibition Complex with a total area in doors over 15,000 sq.m, plus outdoor space, water area of the Finland Gulf and near the quays of the Sea Terminal.

Fifty official foreign delegations from 36 countries visited the Show. Among them twenty three delegations were invited by Rosoboronexport which order-book for naval hardware as claimed by Company's CEO Alexander Mikheev exceeds \$ 5 billion. High-ranking naval delegations got the opportunity to board the Russian-built naval ships, which are popular in the world market, become

familiar with their equipment and, moreover, visit enterprises involved in their construction

The demonstration part of the exhibition at the quays of the Sea Terminal and water area presented 16 ships, boats and craft belonging to the Russian Navy and the Border Guard of the Russian Federal Security Service such as: Admiral Kasatonov frigate project 22350; Stoykiy corvette project 20380; Mytischki small missile ship project 22800; Serpukhov small missile ship project 21631 etc. Our report draws up attention to the novelties being displayed at the show.

Project 22350 Frigate

IMDS 2019 showed debut of Admiral Kasatonov frigate - the second in the row and the first serial ship of the Project 22350. The Severnoye Design Bureau ship will be adopted by the Navy till the end of 2019. Initial ship of the Project, Admiral Gorshkov, has been in service with the Russian Navy since last summer. In April, 2019, she crossed three oceans and arrived to the Chinese port of Qingdao to take part in the 70th Anniversary of the People's Liberation Army Navy. Two more frigates – Admiral Golovko and Admiral Isakov – are under construction at the Severnaya shipyard in St.Petersburg.

Project 22350 multifunctional frigates are the first surface warships to be completely designed and built from scratch in Russia not relying on previous Soviet designs. They displace about 5000 tons, can reach speed up to 29 knots. They adopt the newest weapon systems and equipment, including Kalibr missiles and Poliment-Redut ship-borne AD system, and can be used efficiently in various missions in any part of the World Ocean.

Project 22800 Corvette

Much attention of experts and official delegations was also focused on a lead ship of the Project 22800 Karakurt-class corvette Mytischki. The corvette is designed by the Almaz Central Marine Design Bureau and was manufactured by the Pella shipyard. Project 22800 is the most massive series of ships being simultaneously built at Russian shipyards. Lead ship Mytischki is in service with the Russian Navy since late 2018. Another 10 corvettes are being tested or constructed at the moment. In total Russian Navy signed orders for 18 ships of the Karakurt-class.



Mytischi small missile ship project 22800

The ship has 949 t displacement, 25 knots speed and operational range up to 1500 nautic miles. The ship's main weaponry is 8 missiles of the Kalibr-class, as well as A-190 100-mm artillery unit. Air defense protection is managed by 2x4 Gibka launchers with Igla-type missiles and Duet artillery turret with 2 AK-630 six-barrel 30-mm guns. Close defence employs 2 x14,5-mm and 3 x 7,62-mm machine guns.

On August, 15th, 2016 Serpukhov alongside ZelenyiDol sister ship successfully participated in anti-terror operation in Syria launching 3 Kalibr missiles against the terrorists' bases which had been

destroyed completely.

The Karakurt ships are equipped with versatile launchers of UKSK 3C14 type. These launchers can be used to launch Kalibr and Onix family of cruise missiles and their equivalents (Yakhont, Brahmos), as well as Zircon hypersonic missiles, as soon as they will be passed into service. In addition, the ship is equipped with improved gun mount (GM) of AK-176MA type with higher shooting accuracy due to the use of electric actuators.

The first pair of the Karakurt-class corvettes is armed with AK-630M rapid firing GM. Starting from the second serial-produced corvette Shkval, the ships will be equipped with the Pantsir-M air defense missile systems— a seaborne version of the land-based Pantsir-S1 air defense system proven effective through the course of the Syria Campaign.

Export version of the ship — Project 22800E — has already attracted attention of several foreign customers at the international naval shows. According to the experts' estimation, the corvette can be interesting to Russia's traditional partners like India and Vietnam, as well as other countries from Southeast Asia, Africa, and Middle East.

Serpukhov small missile ship

One of the Naval show highlights was the latest Serpukhov small missile ship of the project 21631. The vessel has been designed by the Zelenodolsk Bureau and built at the neighboring Gorky Shipyard.



Serpukhov small missile ship project 21631

The UAE and Saudi Arabia Navy Commanders as well as high ranking delegations from Nigeria, Thailand and Vietnam displayed special interest to AK Bars products including frigate Gepard-3.9, the Project 21631 small missile ship, the Project 21980 special-purpose boat and the Project 22160 patrol vessel, according to the AK Bars Holding representative.

Rubezh-ME

A new lightweight version of the Bal-E coastal defense system was unveiled at IMDS 2019. The Rubezh-ME is dedicated to the export market and focuses on the coastal states with



Rubezh- ME coastal missile defense system

modest budgets. The developer is reportedly the JSC Research and Production Enterprise Kaluga Instrument-Making Plant Typhoon. Typhoon joined efforts with Tactical Missiles Corporation to create a shore-based missile platform which inherited the best features of its predecessors.

The Rubezh-ME provides over-the-horizon detection, tracking and engagement of individual surface targets, groups of ships, as well as ground targets. Unlike Bal system which is based on three vehicles, the Rubezh-ME is based on a single Kamaz 8x8 off-road chassis but deploys the same Kh-35UE family of anti-ship missiles. The Rubezh-ME complex includes a self-propelled command and control and communications center (SKPUS) equipped with the Monolith-B radar and autonomous self-propelled launchers (SPU). Centralized fire control is implemented by using self-propelled command and control and communications command center (SKPUS), which provides target designation and optimal target distribution between launchers, depending on their combat readiness and location in a combat position. The presence of high-precision active and passive radar detection channels allows for a flexible detection strategy, including secretive.

The Rubezh-ME can be deployed in less than 15 min. The vehicle operates efficiently by being positioned at altitude up to 1 km above sea level and 10 km from the coast line. The Monolith-B radar allows the Rubezh-ME to engage targets up to 250 km in active mode and covert detection of the radiation emitted opposing radars up to 450km in passive mode.

There is an option to combine up to 8 SP vehicles into a task force for joint detection and

engagement of targets with a volley of 32 anti-ship missiles. The Rubezh-E can be deployed either independently or in combination with already in-service Bal-E and Bastion-P (when equipped with the Monolit-B radar) with all data-exchange processes carried out automatically.

Typhoon has also arranged the first public appearance of the Monolit-B coast-based reconnaissance system of sea-surface/aerial situation in the module configuration. Monolit-B system is designed for the long-range over-the-horizon detection and tracking of sea surface and aerial targets. It is easily transported, fits for any chassis, quickly deployed, and can operate as a self-propelled or a stationary version. Active radar of the system is capable to detect targets at the distance of up to 500 km, the passive one – up to 750 km. The crew of the self-propelled version consists of 5 men, the mobile and the stationary versions – of 4 men.



Monolit-B coastal based reconnaissance system

Lamantin

Nevskoe Design Bureau distributed information on the perspective aircraft carrier of project 11430E codenamed Lamantin. The ship's model was displayed at the bureau's booth within the United Shipbuilding Corporation (USC) pavilion. According to the available data, the Lamantin is designed for various aircraft capable of



Perspective aircraft carrier of project 11430E codenamed Lamantin by Nevskoye Design Bureau

fighting air, sea and ground targets in oceans, seas and coastal waters and to ensure combat sustainability of warship groupings and defend amphibious assault from an air attack. The Lamantin can be equipped with several types of accelerators for ship-borne aircraft, including one sky jump, two electromagnetic catapults, and four arresters.

The Lamantin-class carrier displaces 80-90 thousand tons. It is 350-meter long and 41-meter wide. The draft is about 12 meters. Full speed is close to 30 knots and the cruising capacity is 120 days. The crew comprises 2800 men and the airpower - 800 men. The aircraft carrier will accommodate up to 60 aircraft (planes and helicopters) and 6-10 unmanned aerial vehicles.

The ammunition onboard can reach 1600-2000 tons. The equipment includes an automatic control system of the operational and tactical level, an integrated communications and data exchange set, an automatic ship control system, a complex system to control technical means, and an auxiliary power plant.

"The conceptual project of Lamantin carrier is based on the legacy of the Project 1143.7 heavy nuclear-powered aircraft-carrying cruiser Ulyanovsk. So, we and the Russian Navy offer to consider the option of a nuke power-plant", Aleksey Yukhnin, deputy director for shipbuilding and military cooperation at Nevskoe Design Bureau told Mil.Press Today.

Cayman

Nevskoe Design Bureau also unveiled the model and distributed information on the export version of the new Russian large-size landing ship Cayman. Its basic characteristics are close to those introduced in landing ships of Project 11711.

Two ships of the second series of this project – named Vladimir Andreev and VasilyTrushin - were keel-laid at Yantar Shipyard in April 2019 to join the Russian Navy in 2023 and 2024, respectively.

According to Aleksey Yukhnin, deputy director for shipbuilding and military cooperation at the Nevskoe Design Bureau, Cayman is intended for sea transportation, and landing on an unprepared coast of troops and equipment during amphibious campaigns.

Full displacement of the Cayman ships will make 8,000 tons, length is 150 meters, beam is 19.5 meters, draft is 4.5 meters. The ship will accelerate up to 18 knots, the crew will include 120 men. Cayman's air group will consist of ten assault transport helicopters and two search and rescue ones. In addition, the ship will accommodate up to six landing boats lifting at least 45 tons each.

AIP for submarines

During IMDS Russia's Naval Commander in Chief Nikolai Evmenov confirmed that decision on the choice for the air-independent power-plant for Russian submarines can be taken by the Navy after a comparative test of projects offered by Rubin and Malachite design bureaus.

At IMDS-2019 the St. Petersburg-based Malachite design bureau unveiled the P-750B submarine with common submerged/surface power-plant. The project contemplates using of the closed-cycle anaerobic plant with gas turbine engine. In his interview to Mil.Press Today, representative of Malachite told about the power-plant. While on surface, the sub uses atmosphere air. Under water, oxidizer goes from the Dewar's vessel where the liquid oxygen is stored. The gas mixture generated by the turbine is purified and frozen, emitting nothing outside. Thus, the submerged speed without batteries (only powered by the anaerobic plant) exceeds 10 knots.

Rubin Design Bureau

Rubin Design Bureau demonstrated mock-up of training system designed to provide full scope of training and drilling for submarine crews on rescue, damage control and diving activities.

In cooperation with the leading companies of Russian shipbuilding industry Rubin has designed the first Russian operational system for



Training system mock-up for submarine crews for emergency situation by Rubin MDB

submarine personnel training and drilling of rescue and damage control activities including training stands for fire-fighting, stands for training escape from a sunken submarine, stand for training emergency parties intended for advanced investigation and conduct of emergency works.

Rubin has already developed and tested simulating module of fire-fighting compartment of submarine. Simulator provides damage control training in emergency situation such as fire or dangerous concentrations of harmful substances.

Solar-powered boat

Granit-Electron Concern (part of the Tactical Missile Corporation) displayed unmanned universal solar-powered boat. The development of the boat is their joint project with Peter the Great St. Petersburg Polytechnic University. The boat has an autonomous control system and is designed for a wide range of applications, including search-and-rescue missions, World's ocean exploring, ecology and fish stock monitoring, planning sea bottom maps, as well as for military purposes - reconnaissance and delivery of weapons (torpedoes and bombs).

This product combines Concern and University competences in shipbuilding, radio-electronic engineering, intellectual guidance systems, IT, optics and acoustics.

The unmanned universal boat has become the point of interest for R&D institutes, dealing with civilian marine equipment, environmental services not only from the Russian Federation, but from South Africa, Saudi Arabia, Iran etc.



Unmanned universal solar-powered boat by Granit-Electron Concern

UEC-Saturn

In a special pre-IMDS press-release Alexander Mikheev, Director General of Rosoboronexport, separately noted success of UEC-Saturn, which started production of marine gas turbine engines, including for the warships for export.

At the Show UEC-Saturn displayed four marine exhibits, including the SGTG-8 marine dual-fuel gas turbine electric generator mockup featuring state-of-the-art performance, two marine gas turbine engine (M70FRU and M90FR) mockups which are baseline fourth-generation GTE (gas turbine engines) of the domestic marine power engineering, as well as a model of the F.Ushakov assembly and testing facility for marine gas turbine units and engines.

The commissioning of the latter became the most important element of the program consisting in building up entirely import-independent Russian production of ship gas turbine power plants.

Palma and Pantsir

The High Precision Weapons Holding Company arranged demonstration of the Pantsir-ME ship borne air-defense missile and artillery system developed and produced by the Instrument Design Bureau JSC KBP named after Academician A. Shipunov.

The Pantsir-ME can be installed on most of the Russian warships and is very well fit for ships manufactured by other countries. According to Rosoboronexport's Director General Alexander

Mikheev, Pantsir has very good export prospects in the Arab countries, South-East Asia and Latin America.

The Pantsir-ME air-defence missile and artillery system can be set up on ships with water displacement of over 300 tons. The system provides a reliable protection of vessels from all the existing and prospective air assault weapons in the whole spectrum of their combat capabilities with an unconditional probability of kill, which is practically equivalent to one, including low-flying anti-ship missiles and unmanned aerial vehicles.

The high effectiveness in intercepting of anti-ship missiles is explained by high performance tactical and technical characteristics of the Pantsir-ME air-defence missile and artillery system. The system is capable of simultaneous firing at four targets attacking the ship while the kill zone for guided anti-aircraft missiles reaches 20 kilometers in distance and up to 15 kilometers in height. Besides, Pantsir-ME can first utilize its missile weapons, and then, in case of a miss, the target will be hit by the artillery fire with a 100 percent guarantee.



High ranking Nigerian delegation at the AK BARS Shipbuilding Corporation pavilion stressed their interest for a variety of surface combat ships from Zelenodolsk Design Bureau and Gorkiy Plant

The armament set of Palma combines two upgraded six-barrel 30-mm automatic guns AO-18KD and eight anti-aircraft guided missiles Sosna-R. Artillery weaponry engages targets at a range up to 4 km, while missiles operate in the firing range between 1.3 and 10 km.

According to the Holding company's booklet, the Palma fires new armor-piercing reduced calibre (APCR) 30 mm rounds with a W-Ni-Fe penetrator. The Palma can be supplied in a stationary configuration to protect offshore installations, naval bases, and other sensitive shore-based objects.

BrahMos Aerospace

The Russian-Indian joint venture has displayed a variety of its supersonic cruise missiles for the Army, Navy and Air Force application. The latest version of the BRAHMOS-A missile has been successfully tested with the IAF Su-30MKI multipurpose aircraft. The Russian Vice Prime minister Yury Borisov paid a visit to BrahMos to confirm a full support for the enterprise.

One can note that the 10th IMDS dates and exact location haven't been determined yet. There are rumors about LenExpo grounds sale for commercial development to shift the well-established show in Kronshtadt – the Baltic Fleet naval base in the island of Kotlin which has been connected to St.-Petersburg main land with a recently built highway. At the moment there are no facilities to accommodate a huge show and a large number of visitors in Kronshtadt. So, the nearest future will determine one of the best world naval show's destiny.

Photos © Yury Laskin



Pantsir-M – navalised version of the world known ADMGS from KBP/HPW

High Precision Weapons also reported on completion of deliveries of several Palma naval anti-aircraft gun-missile (AAGM) systems to the Russian Navy and foreign customers. The Palma system was certified and tested with 12 of the newest classes of Russian naval ships with displacements ranging from 250 tons to 5,400 tons. Ten AAGM systems are now being operated. The system is installed not only on warships for the Russian Navy but also on the Gepard Project 11661 frigate for a foreign customer.

Pelican-Hardigg unveils its 65 years of experience in Customised Advanced Case Solutions for the harshest environments



Pelican-Hardigg, the World's largest manufacturer of Military and Aerospace approved reusable plastic cases, describes its Shock-Proof Engineered Case Solutions. Pelican-Hardigg Rotomoulded Cases can be customised according to each customer's needs while offering the best protection possible to any type of equipment, even the most fragile ones. With Pelican-Hardigg Advanced Case Solutions, Mission Critical operations are a complete success.

Pelican-Hardigg™ - Over 65 Years of Expertise in Solutions for Mission Critical Operations

Mission Critical operations are defined as those where equipment failure is simply not an option; where preventing the snowball effect of a single breakdown means stopping potentially catastrophic failures down the line. Today's investment in the extreme protection of a custom protective Advanced Case Solutions pays off with Mission Critical equipment reliability over time.

Pelican-Hardigg offers every customer the optimised global resources of a renowned injection and roto-moulded case leader's customised service and manufacturing capabilities. The resulting ability to respond with speed and agility benefits every Advanced Case Solutions customer, whether requiring one unique case solution or a thousand delivered worldwide.

Every facet of customisation from project management, customer relations, logistics, testing, engineering support and prototyping through final fabrication is handled within a comprehensive system to assure that failure is not an option. This unique approach brings a global presence to a regionalised dynamic to meet the custom solution needs.

Pelican-Hardigg cases have been tested in the field as well as in combat situations. They are used to protect and transport aircraft pieces and engines, military diving scooters, all types of drones/UAV, weapons and missiles, satellites, robots, electronic equipment, among others. No matter the size and characteristics, Pelican-Hardigg offers a solution to any company's need of safe transportation and extreme protection.

Pelican-Hardigg's cases are rugged, watertight, airtight, chemical-resistant, lightweight, durable, impact-resistant and reusable. They are designed to efficiently keep the sensitive and vital equipment safe from moisture, dust, sand, salt and impact. Safe inside, the equipment is protected against drop damage, while the rib design maximises stacking and stability en route.

By developing custom solutions, testing new materials and continuously improving designs based on user feedback, Pelican-Hardigg has been able to build a robust line of cases that proudly live up to the harsh demands of the military, aerospace and other industries.

The 4 stages of Custom Engineering –

"In a project there are 4 main stages: evaluation, design, testing and manufacturing. With advanced 3D engineering software, we visualize before manufacture how the container will look like from every side and angle. We can also check for any critical interfaces, like checking the shock mount fit

and that the plates are well fitted, and how the container will fit around that frame.” Explained Phil Morrison.



the product specifications, usage and environmental analysis.

Pelican-Hardigg’s internal team have long-term experience in designing everything from simple foam cushions to extremely complex metal structures for use in dramatically diverse shipments, storages, and use conditions – including military deployments and combat situations. From deck-mounted equipment to bezel-mounted electronics with integrated exhaust fans to cases with multiple access points and interface portals or extended-profile customisations – no case requirement is beyond Pelican-Hardigg capabilities.

For more information visit:

<https://www.youtube.com/watch?v=V86kIPyKNTQ>

Advanced Case Solutions Certifications and Approvals-

- **IP67** – water resistance and dust ingress
- **Air Transport Association** - Spec 300 Category 1
- **MIL-Std 810, def Stan 81 41 Level J** – Tests reports available to certify military standards

Pelican Products, Inc. is the global leader in design and manufacture of both high-performance protective case solutions and advanced portable lighting systems. Their products are used by professionals in the most demanding markets including fire safety, law enforcement, defense / military, aerospace, entertainment, industrial and consumer. Pelican products are designed and built to last a lifetime. The company operates in over 140 countries, with 28 offices and six manufacturing facilities across the globe. For more information, visit www.Pelican.com



Advanced Case Solutions are the result of a multi-disciplinary, four-stage process. Working closely with the customer Pelican-Hardigg’s engineers can customise every point of the protective system from shock and vibration attenuation to impact protection and operational logistics according to



Roketsan Is Moving Up In the Top 100 Defence Industry Companies List

Each year, Defence News magazine publishes the "Defence News Top 100" list based on defence industry sales of the prior year. Roketsan ranked 89th in Defence News Top 100 list of 2019 with a 39% growth in its defence industry revenue compared to 2018 list, where it ranked 96th.

In 2017, Roketsan has entered the Defence News Top 100, which is considered as the most prestigious defence industry list of the world, by ranking 98th and maintains its steady growth ever since. Stating that this is a national achievement,

President and CEO of Roketsan Selçuk YAŞAR added: "As Roketsan, we are proud to announce that we are among 2019's top 100 defence industry companies of the world, as one of the 4 Turkish companies on the list. With our qualified staff of over 2700 people, our innovative approach, R&D and endeavors for independent access to space, we are taking firm steps toward nationalization and strengthening our position in the sector.

We will continue to represent our country the best way possible by making bigger contributions to defence industry, with our cutting-edge technology and national products we are developing."



Egypt Receives 2 Il-76 Transport Aircraft

The Egyptian Air Force has taken delivery of two Il-76 transport aircraft from Jordan as it continues to develop its strategic military capabilities in recent months. Russian state arms holding company confirmed that Russia had allowed Jordan to transfer the aircraft to Egypt.

The re-export provision shows Russian flexibility in resolving vital issues of the partners in arming the national armed forces as well as its resolve to create allies in Africa where it has shown interest.

Egypt is apparently aiming to buy eight Il-76MFs to bolster its strategic airlift fleet, which is quite limited.

Egypt is the only operator of the Il-76MF, a stretched version of the Il-76MD transport aircraft with a fuselage that has been lengthened by two additional 3.3-meter sections in front of and behind the wing, increasing the cargo compartment's volume and aircraft payload.

The aircrafts will come as an additional welcome to the Egyptian fleet and facilitate transport and supplies movement for the troops. The crafts will aid in the fight against ISIS which has an active province in the volatile Sinai region.



Egypt – Follow on Technical Support (FOTS) for Ships

The State Department has made a determination approving a possible Foreign Military Sale to Egypt of Follow-On Technical Support (FOTS) for various ships for an estimated cost of \$554 million. The Defense Security Cooperation Agency delivered the required certification notifying Congress of this possible sale on July 29, 2019.

The Government of Egypt has requested a possible sale of Follow on Technical Support (FOTS) that provides for material and labor services in support of Oliver Hazard Perry Class Frigates (FFG-7 class ships), Fast Missile Craft (FMC), Mine Hunter Coastal (MHC) ships, Coastal Mine Hunter (CMH) ships, and 25 Meter and 28 Meter Fast Patrol Craft (FPC). The estimated cost is \$554 million.

This proposed sale will support the foreign policy and national security of the United States by helping to provide a strategic partner with critical support for multiple type ships responsible for Egypt's maritime security. The proposed sale is essential to maintain Egypt's national security, regional stability, and the free flow of worldwide commerce via the Suez Canal.

Egypt intends to use this technical maintenance and service support to ensure the Egyptian Navy is operationally capable of providing coastal defense and security. The proposed sale will increase the Egyptian Navy's material and operational readiness. Egypt will have no difficulties absorbing this support into its armed forces.

The proposed sale will not alter the basic military balance in the region.

The prime contractor for Engineering Services Support will be VSE Corporation and U.S. Government activities will provide FOTS for Egypt. There are no known offset agreements proposed in connection with this potential sale.

Implementation of this proposed sale will require periodic trips to Egypt involving U.S. Government and contractor representatives for technical reviews, support, and oversight for approximately five years.

There will be no adverse impact on U.S. defense readiness as a result of this proposed sale.

This notice of a potential sale is required by law and does not mean the sale has been concluded.



Morocco seeking two ex-US C-130H Hercules transports

Morocco has requested the transfer of two C-130H Hercules transport aircraft from the United States under its Excess Defence Articles (EDA) programme.

The proposed grant is mentioned in a US House of Representatives report on the Committee on Foreign Affairs Survey of Activities. The report, published on 18 July, states that the notification was dated 11 June 2019.

A State Department official said that the US Government has agreed to the pending transfer of two C-130Hs via the Excess Defense Articles programme, and referred further enquiries to the Government of Morocco to discuss the status of their request.

Morocco Requests Purchase of 24 New Apache Attack Helicopters from US

Export.gov, a portal managed by the US Department of Commerce, shared an overview of Morocco's military on July 15, showing Morocco's latest military purchase activities. The overview shows that Morocco has put in a bid for 24 new Apache attack helicopters at \$1.5 Billion.

Apache attack helicopters are among the most advanced equipment and are heavily used by the US Army as well as other international militaries.

"Over the last decade, Morocco has strengthened its navy and equipped its army with sophisticated vehicles," said Export.gov.

The website also recalled the most significant purchase made by Morocco, which included the 25 new F-16 aircraft in 2019.

Nigerian Air Force Starts K-9 Unit Training With Paramount Group

Military personnel from the Nigerian Air Force (NAF) are undergoing training in South Africa to qualify as highly specialized Canine Unit (K-9 unit) operatives. The training programme will enhance the NAF's Special Operations, Explosive Ordinance Detection (EOD) and Narcotics Detection capabilities, with instruction given by the experts at Paramount K9 Solutions, one of Africa's leading K9 training academies

and subsidiary of Paramount Group, the global aerospace and technology group.

BIRD Aerosystems Will Provide Additional Airborne Missile Protection Systems (AMPS) to the UN Air Operations in Africa



The AMPS-MV systems include BIRD's advanced MACS sensor, and will be installed on Mi-17 Helicopters

BIRD Aerosystems, the leading developer of Airborne Missile Protection Systems (AMPS) and Special Mission Aircraft Solutions (ASIO), has received an order for additional AMPS systems from the UN Air Operations. Under the contract, BIRD will provide its AMPS-MV solution, which includes the MACS sensor, and install it on the UN Mi-17 Helicopters, that are operating in the most dangerous and complicated areas in Africa. The UN is already using BIRD's AMPS systems, and this is a follow-on order that will allow the UN to install the systems on additional helicopters.

BIRD's AMPS missile protection system provides the most enhanced protection for military and civilian aircraft against the growing threat of ground to air missiles (MANPADS). The system is designed to automatically detect, verify, and foil SAM attacks through the effective use of countermeasure decoys (Flares and Chaff) and by Directional Infrared Countermeasures (DIRCM) that jam the missile's IR seeker and protects the aircraft. The AMPS-MV includes BIRD Aerosystems' patented Missile Approach Confirmation Sensor (MACS) sensor, which performs unique confirmation of suspected incoming missile threats detected by the main electro-optical passive sensors, and practically eliminates any False Alarms. MACS ensures that only real missiles will be declared by the system and reacted upon.

Ronen Factor, Co-Chief Executive Officer and Founder at Bird Aerosystems: "The UN Air Operations teams are operating in the most dangerous areas and conflict zones in Africa, and therefore have to make sure that their helicopters are safe and protected against the constantly growing threat of MANPADS. As caring for its soldiers is a primary goal for the UN, we are honored that once again, they choose to do so using BIRD's AMPS-MV, the most advanced and cost-effective solution that is available today."

Egyptian and French naval forces carry out a maritime training in the Mediterranean



Within the framework of the General Command of the Armed Forces to strengthen and support the military cooperation with all fraternal and friendly countries, the Egyptian and French naval forces carried out a naval training within The scope of the Northern Mediterranean Fleet, with the participation of the French frigate (Jean Bart) with the Egyptian frigate (Damietta).

The training included planning and preparation to implement combat missions in the sea by the command groups from both sides in addition to implement a range of combat activities, including the use of aircraft to support the combat activities of naval formations in various tasks in addition to supporting the maritime security procedures in the areas of operation of naval units with training for the different scenarios associated with such procedures, such as the exercise of the right of visit and inspection of suspicious vessels with deploying groups by sea accompanied by air helicopter.

The training comes within the framework of supporting the pillars of joint cooperation between the Egyptian and French armed forces in a way that contributes to refine the skills, exchange of expertise, confirming the tasks and method of implementing different tasks, identifying the latest systems and methods of fighting and supporting maritime security efforts and stability in the region.

Defence PS Handing Over in Kenya



Defence Cabinet Secretary Ambassador Raychelle Omamo welcomes, incoming Defence Principal Secretary Major General (Rtd) (Dr) Gordon Kihalangwa at Defence Headquarters Nairobi on 30 July 2019.

Angolan Armed Forces general visits US, Ohio for first time



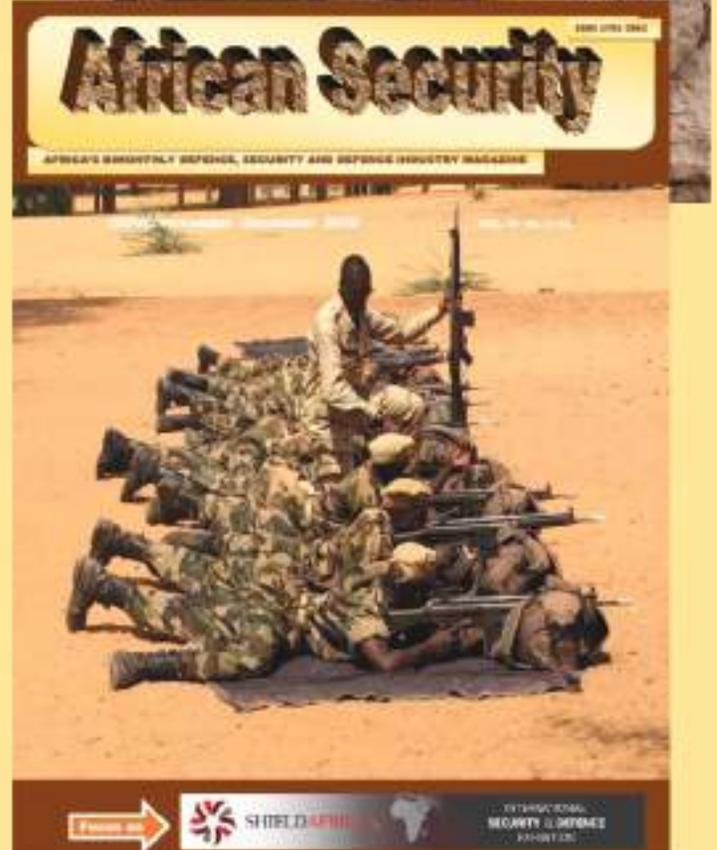
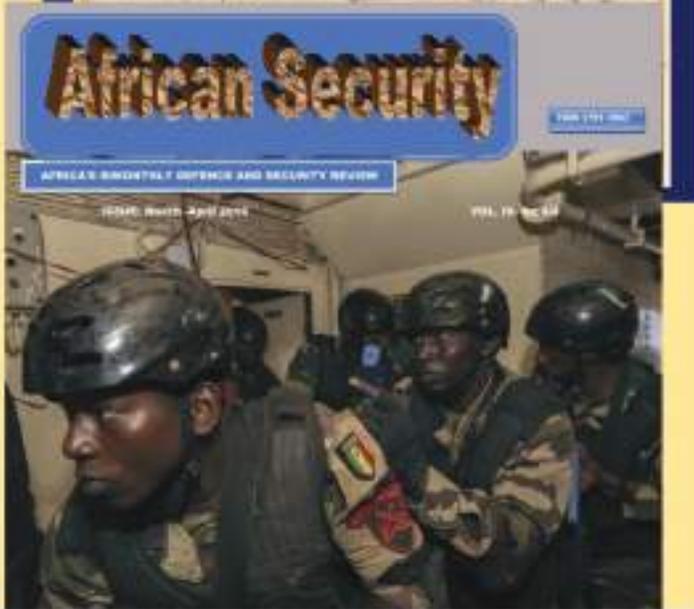
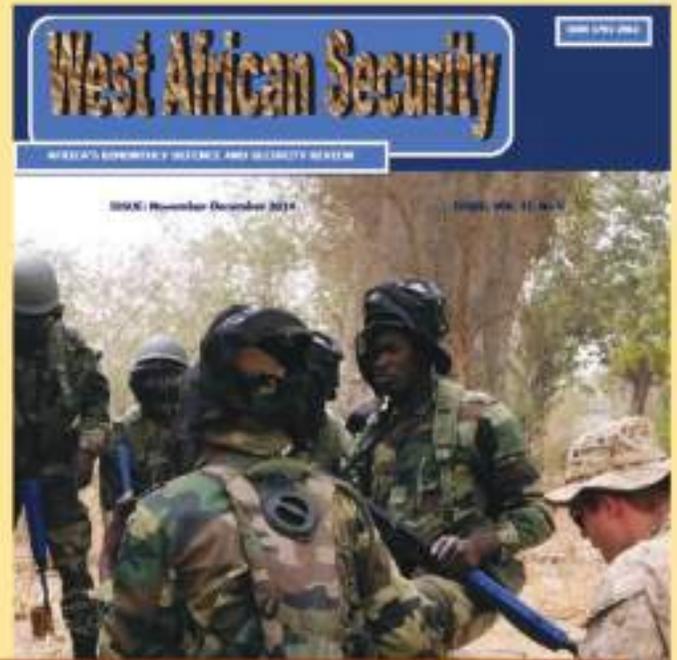
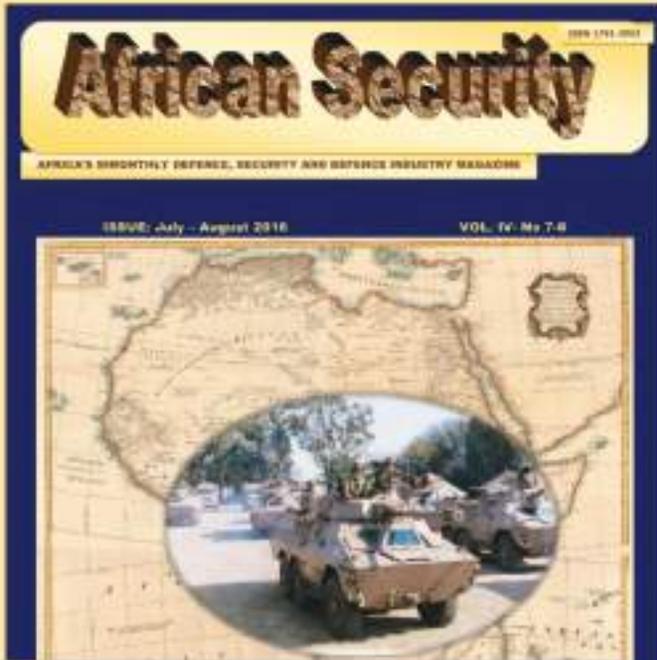
The Ohio National Guard hosted Gen. Jaques Raul, Angolan Armed Forces deputy land force commander, along with four other members of the Angolan military, June 2-6.

During the visit, Raul and the Angolan delegation had the opportunity to observe an Ohio National Guard (OHNG) Homeland Response Force (HRF) disaster response and medical exercise at Camp James A. Garfield Joint Military Training Center near Newton Falls, Ohio. The OHNG HRF, one of only 10 in the nation, showcased some of the capabilities the National Guard has when responding to natural disasters.

In addition, the delegation met with the Ohio Department of Veterans Services at the Ohio Statehouse, and toured the Schottenstein Center at The Ohio State University and the National Veterans Memorial and Museum in downtown Columbus. There were also briefings held at Rickenbacker Air National Guard Base with the Ohio National Guard's 121st Air Refueling Wing; Company B, 2nd Battalion, 19th Special Forces Group; and the 52nd Civil Support Team.

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