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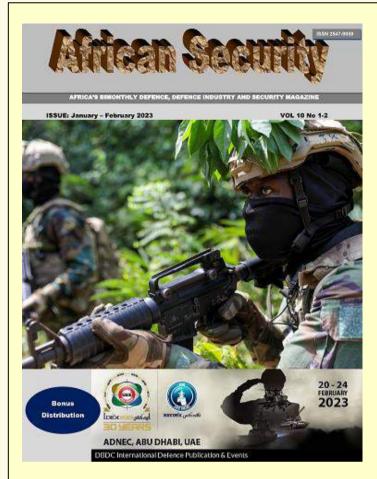












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# Offshore Patrol Vessels in African Navies

Acquisition of Offshore Patrol Vessels (OPVs) by African costal states has attracted significant attention.

The Offshore Patrol Vessel is a highly versatile ship, designed to perform Economic Exclusion Zone management roles, including the provision of maritime security to coastal areas and effective disaster relief.

The offshore patrol vessel is intended to carry out a range of economic exclusion zone management tasks such as maritime security, border control, routine patrols, and anti-smuggling. OPV also facilitates counter-terrorism and piracy, fishery protection, and effective disaster relief. It can also be used for the protection of natural resources.

In recent years, all costal African nations have widely acknowledged a growing trend in the threat to national security as sea-based. Included is the explosion of maritime piracy, the increased focus on countering smuggling, drug-running and border control, and the rising value of the fishing industry, oil industry and naval trade routes.

The Offshore Patrol Vessel has become one of the most significant emerging tools for coastal protection worldwide. Acquisition programs continue to dominate the immediate priority lists of navy and coastguard commanders, a development that is likely to continue over the next ten years and beyond.

The Multipurpose Offshore Patrol Vessel is a highly flexible ship that can accomplish multiple functions, from patrol with sea rescue capability to Civil Protection operations, and - in its most highly equipped version - act as a first line combatant. The ship can have different combat system configurations: starting from a "light" version for the patrol task, integrated for self-defense, to a "full" version, equipped for a complete defence ability. The vessel is also capable of operating high-speed vessels such as RHIBs up to 11 meters long, through its lateral cranes or its hauling ramp located astern

OPVs can be broadly classified into two types:

- High-end war-fighting vessels with expensive weapon systems and C4I suites.
- More basic patrol vessels, designed for sustained low intensity missions and equipped with basic gun armaments,

standard navigation sensors and built to commercial standards.

The types which a country chooses depends on its particular naval requirements, resulting from its geographic location, political aspirations and intended role of its naval force. However, the majority of OPV programmers are of the cost effective, multi-role variety. These are being used in an increasing number of roles, including fishery protection, pollution control, fire-fighting, salvage or search and rescue (SAR), counter-narcotics, humanitarian operations and exclusive economic zone (EEZ) patrol.

Since the operational profiles of these various applications can be quite different, OPV propulsion systems need to be capable of adjusting to varying load requirements. While OPVs are typically between 500 t and 3300 t displacement with a speed of up to 25 knots, the design features can vary considerably from one vessel to another, in line with the intended operational function.

The OPVs should also be able to assist with helicopter operations due to the on-board helicopter landing deck capable of accommodating variouw types of maritime helicopters and UAVs.

The OPVs market is not concentrated; there are many companies such NVL (formerly known Lurssen), Israel Shipyards, Piriou, Dearsan Shipyard TAIS, BAE Systems, Damen, Fincantieri, ROSOBORONEXPORT, Navantia, Babcock, acting in the African market.

With over 140 years of experience in shipbuilding, NVL builds and offers in the African market versatile and flexible offshore patrol vessels to complete a wide range of missions NVL OPVs are multi-role platforms built to provide permanent maritime security in operational areas due to their long endurance and excellent seakeeping capabilities.

NVL understands the growing importance of the geostrategic aspects of the African continent in respect of natural resources and protecting the sovereignty, integrity, economy and wealth of the various African nations. The company has a strong reputation and expertise in tailormade concepts and solutions for coastal defence and maritime security.

NVL Offshore Patrol Vessels (OPVs) are built to meet the challenge of maintaining security in a fast-changing maritime environment. Flexible, robust and optimized to achieve high levels of performance, NVL OPVs can deploy rapidly to protect economic resources, combat criminal activity or safeguard life at sea. Whether your focus is on policing confined, shallow waters close to the



MEETING YOUR CHALLENGES

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THE DNA OF SHIPBUILDING



coast or monitoring the vast expanses of an oceanic EEZ, we can supply patrol vessels that are ideally suited for the task

NVL Group recently held a steel cutting ceremony for the first of two Multipurpose Modular Patrol Vessels (MMPVs) on order for the Bulgarian Navy at the yard of its local shipbuilding partner MTG Dolphin in Varna, Bulgaria. The MMPV has a length of 90 m, a 13.5 m beam, and a displacement of 2,300 tonnes. Armament includes a 76 mm gun, four anti-ship missiles, eight anti-aircraft missiles in vertical launcher cells, a 35 mm close-in weapon station, and lightweight torpedoes. The integrated combat system is to be provided by Saab. The vessels will be also fitted with a hangar and a deck for operating an AS 565MB Panther helicopter.

In the 1990s, Israel Shipyards used the naval architecture of the Nirit Class SAAR 4.5 as a base design to produce a special OPV, loaded with the firepower of larger Naval vessels - for less cost.

This sleek OPV is equipped with highly advanced weapons systems, produced by world-recognized Israeli designers.

Becoming one of the best-known ISL vessels, the SAAR 4.5-based OPV was chosen to secure the extensive waterways around Greece during the 2004 World Olympics. One of its many advantages is a weapon-carrying capacity equal to larger, more costly vessels.

The seagoing power of the Israel Shipyards OPV was further enhanced with optional helicopter carrying capability. This innovation has proven itself in the deployment of rapid-response units to security incidents occurring at sea, in all weather conditions. The development of the multi-mission OPV 45m was a result of comprehensive market research conducted over the past several years. Based on the combat proven SA'AR 4 design used by the Israeli Navy, the OPV 58m was selected by the Hellenic Coast Guard as a significant addition to naval security for the Athens 2004 Olympic Games. The OPV 62m is even more versatile and missionready, with extensive payload capacity including stabilized weapons, medium-range missiles, ESM, and search radars.

Fincantieri offers the "Musherib" OPV vessel design is consistent with the RINAMIL for Fast Patrol Vessel (FPV) rules. She is a flexible type of ship capable of performing several services, from surveillance to combat functions.

The propulsion system has four variable pitch propellers, two to starboard and two to the left, each in line with a diesel propulsion engine. Furthermore, the vessel is capable of operating a RHIB (Rigid Hull Inflatable Boat) through a crane located at the stern.

In March 2021, Damen launched the first multimission inshore patrol vessel (MMIPV) for the South African In 2018 Damen has also delivered its Multi Service Offshore Patrol Vessel 1400 (MSOPV 1400), a 'second generation' offshore patrol vessel, to the Tunisian Navy.

The Meteoro-class offshore patrol vessel, also known as Buque de Acción Marítima (BAM), are new modular offshore patrol vessels of the Spanish Navy adapted to different purposes from a common base, manufactured by Navantia. The BAMs combine high performance with mission versatility, a high commonality with other ships operated by the Spanish Navy. Acquisition and lifecycle costs are reduced.

Dearsan's OPV76, build by Dearsan for the Nigerian Navy, enables it to carry out a variety of tasks, including surface warfare, search and rescue, and patrolling. The ship has two controllable pitch propellers, four diesel engines, and a combined diesel and diesel (CODAD) propulsion system. The Offshore Patrol Vessel 76 measures 76.80 meters in length, 11 meters in width, and has a draft of 2.9m. Depending on the customer's choice of armament package, the ship is manned by a crew of roughly forty personnel. Having a flight deck that can accommodate an NHIndustries NH90 sized helicopter.

BAE family of offshore patrol vessels comprises 80 metre and 90 metre versatile and affordable ships. Their adaptable design is well suited to the export market and can be altered according to individual customer needs, ensuring they can meet the operational requirements of navies around the world.

PIRIOU shipyard haw has held a steel cutting ceremony for the first of three Offshore Patrol Vessels (OPV) for the Senegalese Navy. The contract for three OPV 58 S was signed in November 2019 by the Ministry of Armed Forces of Senegal and the PIRIOU group, in the presence of the President of the Republic of Senegal and the French ministerial delegation. The building program of these three patrol vessels is carried out with the support and expertise of PIRIOU's subsidiary KERSHIP and will spread over a period of 44 months up to summer 2024. It also provides for a support period of several years in Senegal.

Dimitrios Angelopoulos M.Sc. Captain (Rtd)HN Advisor on Defence and Maritime Security issues



# EMPOWERING YOUR NAVAL PERFORMANCE

Foreseeing Your Naval Needs





# Challenges to Maritime Surveillance in Africa

Maritime security is of utmost importance today with more than 90% of the world's trade goods and more than 70% of global crude oil transported by sea. As shipping traffic grows, the pressure on the security of the world's oceans is increasing: not only is there more likelihood of accidents and associated environmental damage, shipping traffic is also increasingly the target of piracy, organised crime and terrorism. Moreover, illegal maritime activities such as illegal fishing, drug trafficking, weapon movement/proliferation and illegal immigration are constantly on the rise.

Maritime surveillance is essential for creating maritime awareness ('knowing what is happening at sea').

Maritime surveillance operations are of great importance to ensure that all activities on the seas or oceans are carried out safely and that national and international security is maintained without any problems.

Integrated maritime surveillance is about providing authorities interested or active in maritime surveillance with ways to exchange information and data. Sharing data will make surveillance cheaper and more effective.

Currently, EU and national authorities responsible for different aspects of surveillance – e.g. border control, safety and security, fisheries control, customs, environment or defence – collect data separately and often do not share them. As a result, the same data may be collected more than once.

A common information sharing environment (CISE) is currently being developed jointly by the European Commission and EU/EEA Member States. It will integrate existing surveillance systems and networks and give all concerned authorities access to the information they need for their missions at sea.

As part of the EU Common Security and Defence Policy (CSDP) building regional maritime capacities and countering piracy off Africa, the JRC has — in the context of the projects on Piracy, Maritime Awareness and Risks (PMAR) — studied technologies intended to build up maritime awareness for use by authorities in piracy affected regions. A prototype software has been developed to track all the merchant ship traffic in wide ocean areas, for use in regional operations centres. The software has been piloted off East Africa and in the Gulf of Guinea. These activities are undertaken under the umbrella of EU development funds (DG DEVCO) and are coordinated with the European External Action Service (EEAS), regional and international organisations and other global actors.

The development of the African Maritime Safety and Security Agency was first deliberated during the proceedings of the 3rd Assembly of the ICHCA Canaries-Africa Regional Charter Ports conference held 10-11 December 2007 in Accra, Ghana. The thrust of the proceedings was African port logistics, trade, the maritime economy and the overall capacities of the African integrated maritime transport (supply chain).

The discussion relating to Maritime Safety and Security related to the socio-economic and environmental benefits of developing a maritime safety orientated intelligent support framework. The purpose of which would be to provide new scientific research, harmonised statistical data, and the development of management models in relation to the economic impacts for the port and shipping industries of maritime safety and security issues. The development of a North West Africa Safety Agency (NWAMSA) Maritime considered as a process that would optimize opportunities

The conference proceeding established without question that effective operations of African port activities are vital for the well being of communities, and that the 'turn around' for incoming vessels is an important factor relating to the economic viability of the sector. It was agreed that overall concerns relating to maritime safety and security affairs were impinging upon the operational capacity of the African maritime sector, and it was noted that such issues are aggravating the overall maritime management process.

The ICHCA Canaries-African ports and shipping industries representatives' consensus was that the development of methodologies to respond to Maritime Safety and in particular the irregular immigration phenomena, is a priority for the maritime transport sector. The change of title occurred after the printing of the first report when representatives of the African maritime community noted that the tools and mechanisms developed through the organisation would provide benefits for the the whole of Africa due to the international perspective of maritime it was thus justified that the NWAMSA should become AMSSA. organsiation became a legal entity during 2010.



# Integrated Border Security System

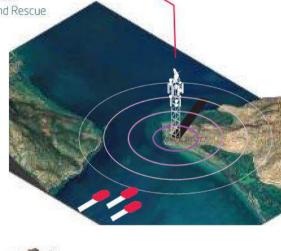
System Integrator and **Turnkey System Provider** for Border Security and **Management Projects** 

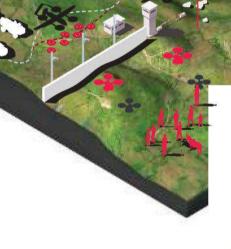
#### LAND BORDER SECURITY SYSTEM

- · Allocation of sensors and weapons,
- · Generating tactical picture for strategical planning,
- · Situational awareness for fast and accurate sharing of information,
- Facilitating threat evaluation and critical decision-making process,
- Communication with patrols and site officers

#### COAST SURVEILLANCE RADAR SYSTEM

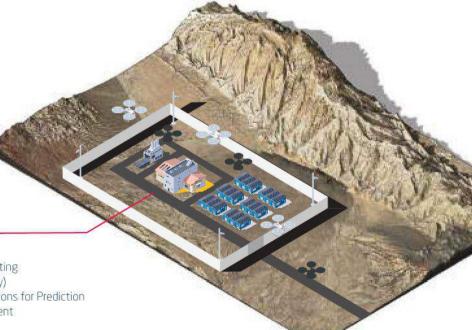
- Human Trafficking
- Irregular Migration
- Illegal Fishing
- Sea Pollution
- Search and Rescue





#### CRITICALINFRASTRUCTURE SECURITY SYSTEM

- · Monitoring, Alarm Generation and Reporting
- Video Analytics (Face, Plate, Abnormality)
- Artificial Intelligence (AI) Based Applications for Prediction
- Motion Detection and Sensor Management
- CBRN-E Control and Management













Due to the economic impact of illicit activities in and around West Africa a Summit of the Gulf of Guinea heads of state and government was held in 2013 in Yaoundé, Cameroon. This resulted in the adoption of the Yaoundé Declaration on Gulf of Guinea Security. Two key resolutions contained in the Declaration were the creation of an interregional Coordination Centre on Maritime Safety and Security for Central and West Africa, headquartered in Yaoundé. and implementation of a new Code of Conduct Concerning the Prevention and Repression of Piracy, Armed Robbery Against Ships, and Illegal Maritime Activities in West and Central Africa. Adoption of this agreement has laid the foundation for critical information sharing and resource cooperation that can be used to combat piracy, illegal fishing, and other illicit activities in the Gulf of Guinea.

Unmanned aerial systems (UAS), or drones, as they are known colloquially, provide a way for African navies and coast guards to greatly enhance maritime security in a relatively inexpensive manner, similar to the ways mobile telephony revolutionized communications on the continent. Similar to the evolution of computing power outlined by Moore's law tactical UAS are rapidly growing in capabilities while decreasing in

Maritime patrol / reconnaissance aircraft are crucial

for nations with long coastlines. Modern patrol

aircraft with multirole capabilities are an asset to

continent. Similar to the evolution of computing power outlined by Moore's law tactical UAS are rapidly growing in capabilities while decreasing in cost. Improvements in sensors, endurance, and payload are advancing quickly. For any solution, acquisition cost, maintainability, and infrastructure required are key factors to be considered. The cost per flying hour of most UAS is negligible compared to their manned counterparts.

Though the Code of Conduct established an architecture for maritime security in the region, without enforcement on the water, diplomatic efforts are largely impotent. Key to enforcement is the ability to identify, track, and prosecute nefarious actors on the high seas and in coastal areas.

So-called maritime domain awareness is gradually improving in the area, but current options for maritime surveillance are limited.

The largest local navies have offshore patrol vessels capable of multi-day over-the-horizon operations, but even these vessels have limited enforcement capacity. Patrol vessels face maintenance issues and fuel scarcity. Shore-based radar systems at best reach out 30 or 40 nautical miles but are plagued by power and maintenance issues. Moreover, a shore-based radar, even with signals correlated from vessels transmitting on the Automatic Identification System, only provides knowledge that a contact is afloat, not necessarily any evidence to illicit actions.

Optical Monitoring of Suspicious Behaviour

any naval force.

Long Rang
Identification
& Tracking

It is crucial for law enforcement, border and security authorities, fisheries management agencies etc to optimize the use of surveillance means such as patrol vessels, helicopters, aircrafts UAS, costal radars and satellite services. Combination of imagery and analytics services provides costal nations with detailed surveillance information and maritime intelligence such as:

- Maritime situational awareness
- Ship detection, classification and identification reports
- Route monitoring and fleet management
- AIS correlation through partnerships with leading SAT-AIS providers
- Detect patterns of illegal behaviour at sea such as illegal fishing, narco-traffic, immigration, piracy
- Support for naval forces and aerial operations for the interception of enemy boats
- Maritime pollution monitoring
- Assist with search & rescue activities such as hijacking
- Environmental impacts such as plastic pollution, gulf weed and sea level rises

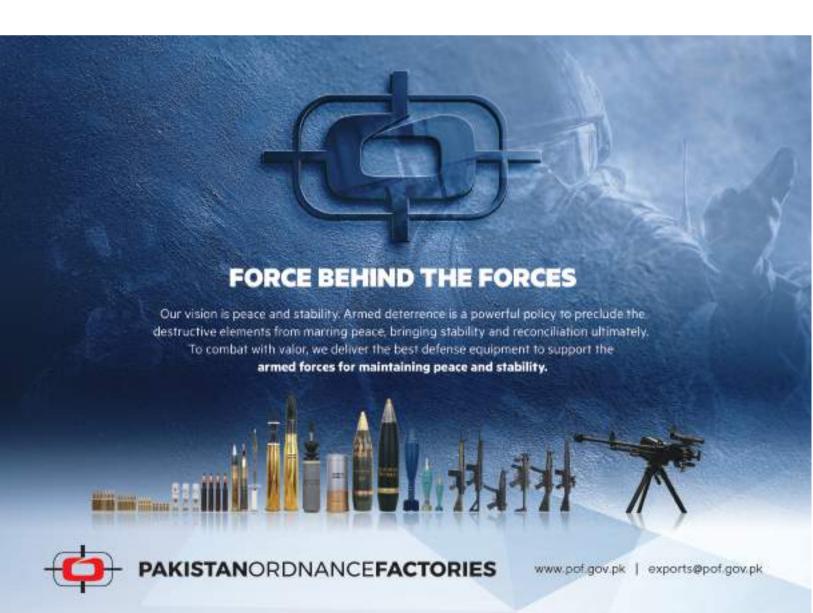
Maritime Patrol Aircraft

# Ivorian Navy Receives Ex-French Navy P400 Class Warship – Military Africa

The Ivorian Navy has taken delivery of a second-hand P400 54.8 meters offshore patrol vessel from France. The vessel Contre Amiral Fadika was handed over in a ceremony last week after extensive refurbishment by Piriou. The P400 patrol boat owes its name to Rear Admiral Lamine FADIKA who was the first Ivorian officer in the National Navy in July 1967, after his admission in 1964 to the entrance examination to the Brest Naval School. Appointed Commander of the National Navy in 1970, he was promoted to Rear Admiral in March 1993.



In April, Ivorian Admiral Kouame announced the forthcoming acquisition of the P400 OPV as well as two OPV-45s and maritime surveillance drones as part of revitalization of the navy. The transfer of ceremony of the Contre-Amiral FADIKA Offshore Patrol Vessel to the Ivorian Navy took place in Concarneau (France) on Friday, 9 September 2022. The delivery of this vessel follows the signature by the Ministry of Defence of Côte d'Ivoire of a contract for its acquisition in April.



# Nigerian Armed Forces Modernization

The Nigerian Defence Forces are currently in a process to transform itself more capable of handling current security threats. Furthermore, the Nigerian Army, Navy, Air Force has acquired new modern weapon systems including drones, Main Battle Tanks, Helicopters and various types of aircrafts. The budgetary allocation for defence in Nigeria annually is usually around US\$1.9 billion

The ambitious goal of the defence ministry, and a vital one for continued democratic rule in Nigeria, is to reposition the military to fulfil its constitutional role as the defender of the elected regime and guarantor of sovereignty.

In addition to the formation and execution of defence policy, and the management of military emergencies, the ministry of Defence has a twofold mission. Nationally, it must ensure combat readiness of forces to guarantee internal and national security; provide for the welfare of personnel; and enhance and develop the defence industries to reduce dependence on imports and create the potential for export production. Globally, the ministry is active in pan-African security through collective defence agreements, and provides peacekeeping forces to areas under the mandate of the United Nations.

#### **Recent weapons systems acquisition projects**

- The Nigerian air force is set to receive three Chengdu/Pakistan Aeronautical Complex JF-17 fighters, as well as eight unmanned aerial vehicles (UAVs) from China. The Wing Loong II attack drones from China is China's amond most sophisticated unmanned combat aerial vehicles and can remain airborne between 26 and 31 hours. Each Wing Loong II costs about \$1-\$2 million, a fraction of the \$30 million that a U.S.-made MQ-9 Reaper sells for. The NAF says the new drones will be used in the fight against Islamic militants and bandits that currently operate in the northwest. Nigeria joins the United Arab Emirates as the only country outside of China that operates Wing Loong II drones.
- A batch of 17 combat vehicles, consisting of VT-4 main battle tanks, an ST-1 wheeled tank and two types of self-propelled howitzers, was purchased by the Nigeria army. The cargo was delivered last April The Nigerian army made an emergency purchase of heavy weapons to strike at the terrorists Boko Haram followed a signed package deal in 2019. VT4 main battle tank design details Based on tracked chassis, the hull of the VT4 MBT is of all-welded steel armour construction. The gross vehicle weight of the tank is approximately 52,000kg. The tank is manned by three crew members including commander, driver and gunner. The driver's seat is located in the centre of the forward hull with a single hatch. The commander is seated to the right of the turret, while the gunner is is provided on each side.



NAF 582 ( )

- The reception at the Naval Dockyard, Victoria Island, was organized by the Nigerian Navy and the Nigerian Maritime Administration and Safety Agency (NIMASA), under the Deep Blue Project.
- The vessel, DB Lagos and DB Abuja, which arrived the country recently are equipped with sophisticated intelligence gathering capability for timely detection and response to illegal activities in the maritime domain.

patrol boats, a 24-meter FPB 72 fast patrol boat and four 17-meter C-Falcon interceptors for the Nigerian Navy, which has already received two FPB 110s, seven FPB 72s and a 35-meter FPB 98.

 The Minister of Defence, Maj Gen Bashir Salihi Magashi (rtd), has recently said that Nigeria Defence Space Administration will be equipped technologically through partnership with the US Space Force to enhance its capabilities to fight insecurity in the country.

- According to a Tweet released on May 30, 2020, by DefenseNigeria Twitter account, the Nigerian Navy will take delivery of more FPB 72 coastal patrol boats designed and produced by the French Company OCEA. In December 2019, the French company has announced a contract for the delivery of new 24 m Fast Patrol Boat type OCEA FPB 72 MKII to the Nigerian Navy. The OCEA FPB 72 is a light patrol boat that has a length of 24 meters and has a top speed of 30 knots (56 km/h; 35 mph). It can be armed with machine guns or an automatic cannon. The FPB 72 has a mono-hull design offering high-durability and superior performance, is propelled by two 2000 M72 MTU diesel engines and equipped with an unmanned turret weapon system armed with one 20mm automatic cannon.
- In mid-December 2019, Rear Admiral Beegroy Ibe-Enwo, head of policy and plans for the the Nigerian Navy, said it would receive new vessels from France, Vietnam and Malaysia, manufacturers, adding to the 42 patrol boats and other vessels acquired in 2019. Ibe-Enwo said the new acquisitions include 60-meter OSV 160 hydrographic survey vessels from France's Ocea, two 40-meter fast patrol boats from Damen Shipyard in Vietnam, four Manta class boats from Malaysia's Suncraft, one helicopter from Italy (most likely an AW109) and 15 riverine patrol boats from Nigeria's Epenal Group. The Nigerian Navy already has 20 18-meter Manta Mk III boats in service. Ocea is also constructing two 35-meter FPB 110 fast

Gen. Magashi stated this while playing host to a five-man US delegation led by the Secretary, US Air Force, Barbara Barrett at the Ministry of Defence Headquarters, Ship House Abuja. The Minister said efficient and effective space management by the Defence Space Administration (DSA), is germane to the successful operations of the Nigerian Armed Forces and other security agencies in the effort to defeat insurgency, banditry and kidnapping. He appealed to the US secretary to speed up the release of the Super Tucano Aircraft undergoing procurement by the Federal Government which will boost the campaigns by the Nigerian Air Force to demystify the criminal elements in their various hideouts in the forests.



- The Nigerian Airforce took earlier received three new aircraft into service, AW109 helicopters produced by the Italian company Leonardo and one Mi-171 from Russia.
- The Nigerian Army has ordered 52 additional locally produced Ezugwu mineresistant, ambush protected (MRAP) vehicles from the Defence Industries Corporation of Nigeria (DICON). armored car belongs to the class of MRAP, that is, equipment resistant to the destructive effects of mines. According to the declared characteristics, it is able to withstand the explosion of 12 kg of explosive under the wheels and 6,75 kg under the bottom of the armored housing. Has an independent suspension. It is assumed that the armored car is created on the Tatra 4 × 4 chassis. Director-General of DICON, Major General Victor Ezugwu, said this was to improve the operational efficiency of the troops fighting terrorism, banditry and other emerging security threats in the country. The DG, who disclosed this in Kaduna shortly after he declared closed the maiden three-day retreat for top management staff of the Corporation said feedback from the field has proven the efficacy of the vehicles, hence the demand for more.

In December 2022, it was announce that Nigerian Army will be provided with 400 armoured vehicles unprecedented buy in recent time. The newly promoted Commander of the Brigade of Guards, Major General Mohammed Usman at the State House, Abuja, on 28 2022 thanked December President Muhammadu Buhari for the approval of 400 new armoured vehicles and said that the new vehicles were enough to secure his area of responsibility including the Federal Capital Territory, Nasarawa State and parts of Niger State.

This recent 400 armoured vehicle buy may likely be part of previous mega acquisitions of armor over the past few years which includes the recent block buy of close to a hundred Streit Group SPARTAN-MAV armoured personnel carriers. Spartan-MAV is a 4x4 armoured vehicle designed and built by Canadian company Streit Group. The armoured vehicle can support military, police and law enforcement mission, joining another 177 Streit vehicles of various types including Warrior, Typhoon, and Spartans acquired in 2017 for the Nigerian Army.

Nigeria has been acquiring a wide variety of military hardware in recently years, from both local and foreign manufacturers. Domestic products include the Proforce Ara armoured personnel carrier and the Ezugwu APC manufactured by DICON, while the Nigerian Army Vehicle Manufacturing Company (NAVMC) is





- Within the scope of the requirements of the Nigerian Naval Forces Command where the design, integration, and construction to Dearsan Shipyard, belongs ceremony of laying the keels for the 2 (two) units of 76-meter High Endurance Offshore Patrol Vessels, was held at Dearsan Shipyard on 16th September 2022, Friday. The Ceremony was held under the auspices of Nigerian Ministry of Defence H.E. Bashir Salihi Magashi, Commander of the Turkish Naval Forces Admiral Ercüment Tatlıoğlu, Turkish Deputy Defense Minister Muhsin Dere, Nigerian Navy Chief of Naval Staff Vice Admiral Awwal Zubairu Gambo, Chairman of Board of Dearsan Shipyard Mr. Aziz Yıldırım, Nigerian Ambassador to Türkiye Ismail Abba Yusuf as well as many members of the Navy, local and foreign guests, and many local, and foreign press members have attended.
- After the speeches, Dearsan Chairman of the Board Mr. Aziz Yıldırım, Commander of the Turkish Naval Forces Admiral Ercüment Tatlıoğlu, Turkish Deputy Defense Minister Mr. Muhsin Dere, Nigerian Minister of Defence H.E. Bashir Salihi Magashi and Commander of the Nigerian Naval Forces Vice Admiral Awwal Zubairu Gambo has attended the keel-laying ceremony. After the group photo shoot of the protocol members and the presentation of gifts for this ceremony, the guests were hosted in the cocktail area at Dearsan Shipyard and

examined the first blocks of 2 units of 76meter Offshore Patrol Vessels.

The Defence Industries Corporation of Nigeria (DICON) was established by an Act of Parliament in 1964. Consequently, a West German manufacturing firm Fritz Werner was assigned the task of providing technical expertise and set up the Ordnance Factory in Kaduna. The first Technical Partner of the Defence Industries Corporation of Nigeria (DICON) was Fritz Werner of Western Germany. FW designed and built the Kaduna Ordnance Factories in 1964 with the following production capacities:

- 5000 units of BM 59 Rifles per annum,
- 18,000 units of SMG 12 per annum,
- 12,000,000 rounds of 7.62mm x 51 per annum and
- 4,000,000 rounds of 9mm x 19 per annum.

The Nigerian Civil War which occurred between 967 -1970 necessitated the tripling of the above production rates and the factory was thus able to make a significant contribution to the war effort. After the war in 1970, the lucrative arms market for DICON ended. Therefore, in order to remain in business DICON decided to use its equipment to produce civilian items like rural water supply equipment, industrial spare parts and furniture for sale to the public.

# Re-Equipping the Ghana Military

The Ministry of Defence (MOD) is one of the key service delivery organs of the Government of the Republic of Ghana under the Office of the Head of Civil Service (OHCS).

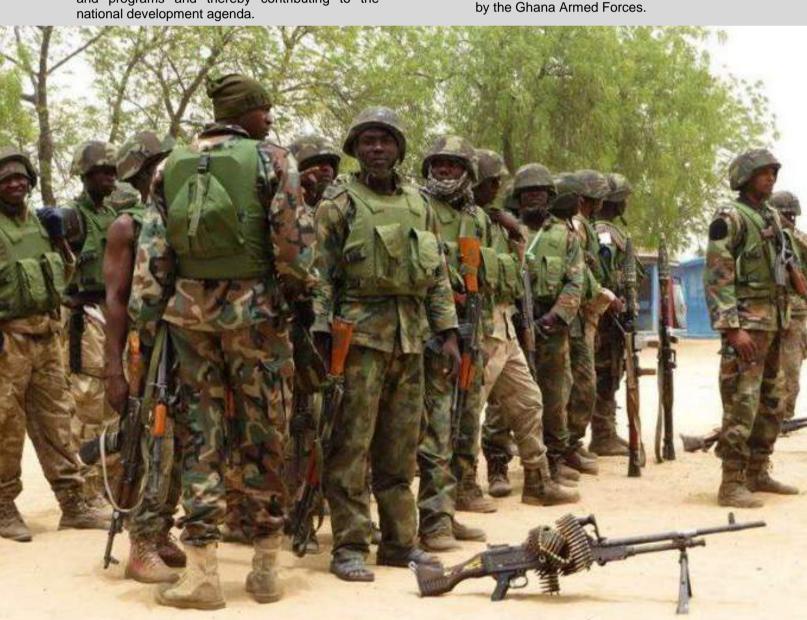
The MOD mandate is to formulate and implement policies for the national defense through the agency of the Ghana Armed Forces (GAF). In charting National Defence Policy, MOD works in close collaboration with the National Security Secretariat and the Armed Forces Council to proactively promote National and Regional Defence interests through the effective formulation, implementation, co-ordination, monitoring and evaluation of policies and programs and thereby contributing to the national development agenda.

The Ghana Armed Forces are heavily committed to international peacekeeping operations. Ghana prefers to send its troops to operations in Africa. However, the United Nations has used Ghanaian forces in countries as diverse as Afghanistan, Iraq, Kosovo, Georgia, Nepal, Cambodia and Lebanon. Currently, Ghanaian armed forces are posted to United Nations peacekeeping missions in:

- MONUC (Democratic Republic of Congo)
- UNMIL (Liberia)
- UNAMSIL (Sierra Leone)
- UNIFIL (Lebanon)

#### **2020 BUDGET ESTIMATES**

- The construction of a hangar at Air Force Base Tamale is completed.
- The Ministry of Defence, under the auspices of H.E. the President and Commander-In-Chief of the Ghana Armed Forces in the First Quarter of this year commissioned Fifty (50) high occupancy buses and One Hundred and Thirty- Eight (138) operational vehicles procured for use by the Ghana Armed Forces.



- The Ministry has also awarded contracts for the establishment of a Forward Operating Base (FOB) in the Western Region as part of our national strategic program to protect the country's oil and gas reserves and other natural resources. The Project includes the construction of some 250 Housing Units of accommodation and the purchase of equipment (ships, boats, guns and vehicles) for the Ghana Navy.

  The Ministry has as at June, 30th 2019
  - The Ministry has as at June, 30th 2019 overhauled Three (3) Casa Aircraft for the Ghana Air Force and Two (2) Helicopters which were grounded since 2012. Also, processes are on-going with prospective aircraft companies for the acquisition of Seven (7) aircrafts by the end of this year.
  - The Ministry has secured Cabinet and Parliamentary approval to award a contract for the purchase of high technology communication equipment that is, Night Vision Binoculars and Monocular at the cost of US\$22,080,850.00 dollars for the GAF.
  - In August 2020, Ghana's Parliament approved a total of \$86.12million loan agreement between the Government of Ghana and Israel Discount Bank Limited to finance the supply of armoured vehicles to the Ghana Armed Forces produced by the Israeli defence company Elbit Land Systems The rationale for the loan was that the current threat of terrorism and other land border threats of neighbouring countries, particularly from the Sahel region, indicates that there was the need for the country, especially the Ghana Armed Forces (GAF) to prepare for any agitations.

Armoured vehicles play vital role in the work of the army and in recent times, heavily armoured vehicles particularly 6x6 and 8x8 vehicles were used by the army for land operations as they were sustainable for all terrains.

Nine Infantry Fighting Vehicle (IFV) will be 8x8 with Unmanned Turret (UT) 30mm, communications packages and 5,000 pieces of ammunition and ten will IFV 6x6 with Reconnaissance system including Remote Control Weapon System (ORCWS) 12.7 and communication package.

According to the Chief of Ghana Naval Staff, Rear Admiral Seth Amoama, the new proposed OPVs for the Ghana Navy would mainly be deployed on protection of offshore oil and gas installations, maritime law enforcement and maritime safety and security. Additionally, they should be able to position the Navy to effectively deploy for Peace Support Operations including sea lifting of land forces and conduct of resupply duties for peacekeeping missions. Other missions envisaged for the OPVs include EEZ patrols, joint operations and naval gunfire support to land forces as well as various humanitarian operations. In line with this, the main operational and technical requirements of the proposed OPVs are high endurance to enable the Navy to increase its presence at sea through prolonged deployment. It is also to offer the Navy varied capabilities and flexibility through the use of the Mission Modular System to be configured into the general arrangement of the ships. The ships are expected to be designed for integrated maritime air patrols and other close air support operations as well as Special Forces operations. It is also desirable that ships should have minimum maintenance and long time between overhauls in order to have high operational availability.





In March 2021, The Ghana Armed Forces (GAF) received 40 new armoured vehicles to help contain security threats in Ghana. President Nana Addo Dankwa Akufo-Addo handed over the vehicles to the GAF at a ceremony in Accra. Dubbed Cobra II, the specialised vehicles are armoured personnel carriers. They are to help the GAF to contain and even better the security threats posed at the northern borders, as well as provide the necessary protection for the western and eastern frontiers. The General COBRA-II Purpose Tactical Wheeled Armoured Vehicles will help the GAF discharge their duties effectively. The President described the vehicles as strong and versatile, which would support the GAF to prevent and contain security threats at the country's borders, including the northern, western and eastern frontiers.

COBRA II 4x4 Tactical Wheeled Armored Vehicle, produced by the Turkish company Otokar is a modular platform with superior technical and tactical characteristics. Besides outstanding mobility, COBRA II provides higher ballistic and mine

protection, increased payload capacity and internal volume.

The Minister of Defence, Mr Dominic Nitiwul, also said the government would provide more resources to the GAF to combat threats posed within and outside the country, adding that the GAF needed real time surveillance capability, high moral, protection. fire power communication tools. He said the GAF had been resourced with 73 APCs within the last three years, and that the equipment was procured in three batches for the 153 Armoured Regiment in Accra in 2018, 154 Armoured Regiment in Sunyani in 2019 and the 155 Armoured Regiment in Tamale in 2021.

In February 2022, President Akufo-Addo commissions four ships for the Navy at the Sekondi-Takoradi Naval Base. President said the acquisition of the vessels, was a further manifestation of the government's commitment to retooling and re-equipping the Ghana Armed Forces, to enable them to protect the country's territorial borders. The vessels were acquired through a publicprivate partnership between the Ministry of Defence, Israel Shipyards Ltd, Ghana Commercial Bank and two international oil companies. According to the 'Northern Border Project' designed to safeguard the country's land borders at the Northern part of Ghana is included the establishment of forward operating bases (FOB), along the northern perimeters and equipping them with state-of-the-art equipment to defend the country. President also said that in addition to the four ships, the government was in the process of acquiring another two offshore patrol vessels with high endurance limits, "to maintain a constant presence at sea.'







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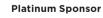
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#### **Effectively protecting African values**

NVL Group understands the growing importance of the geostrategic aspects of the African continent in respect of natural resources and protecting the sovereignty, integrity, economy and wealth of the various African nations. The company has a strong reputation and expertise in tailor-made concepts and solutions for coastal defence and maritime security.

#### Maintaining security

Today's navies face a broad spectrum of challenges in maintaining security in a fast-changing maritime environment. These geostrategic aspects mean that nations require affordable, versatile and fast platforms to operate successfully in territorial waters and to protect against traditional threats. Whether the mission is protecting economic resources, countering criminal activity or safeguarding life at sea,



a flexible and effective response is essential. At NVL Group, we recognise the importance of building vessels that are easy and economical to operate yet still deliver superior levels of performance.

## Customise platforms for any naval requirement

NVL Group provides state-of-the-art patrolling solutions for every kind of challenge and threat, such as patrol boats, offshore patrol vessels, corvettes, frigates, minehunters or naval support vessels.

#### Territorial sea (< 12 nm)

 Offering high speeds of over 40 knots, NVL fast patrol boats can quickly respond to challenges. High performing and with excellent seakeeping characteristics, these boats are ideally suited for interception and patrolling territorial waters.

#### Contiguous zone (< 24 nm)

 No matter how long a coastline is, contiguous zones are best patrolled by NVL patrol boats, which are characterised by their speed, performance and versatility. The proven design guarantees maximum reliability and endurance. Exclusive economic zone (200 nm)

 The exclusive economic zone (EEZ) is best patrolled by offshore patrol vessels built by NVL Group. Their multirole and multimission platforms provide permanent maritime security in the operational area due to their endurance and excellent seakeeping capabilities.

## Strong support for cost-efficient naval vessel operations

Whatever the requirement, NVL Group works in partnership with its customers to establish the right solutions. We offer the option to build vessels at one of our NVL Group shipyards or we can transfer both

our knowledge and technology, developing our partner's maritime industry. In all cases, we focus on delivering technically advanced, high-quality ships that balance a navy's operational needs with its available budget. NVL Group also provides sustainability support for existing fleet structures in the form of upgrades, spare parts supply, training, technology and knowledge transfer and other services to maximise the potential of any navy vessel.

#### Your naval solution

NVL Group provides you with feasible and economical solutions to fulfil the tasks of today and overcome the challenges of the

future. We aim to ensure each ship entrusted into our care remains mission ready at every stage of its operational life. NVL Group maritime patrolling solutions offer reliable and versatile multi-mission performance, providing a cost-effective yet comprehensive means of meeting maritime security needs across the seven seas.



The maritime zones (from left to right): territorial sea, contiguous zone, EEZ



NVL Group works closely with the customer to enable local build and the transfer of knowledge and technology



Fast interceptor boat 25

#### **NVL** · THE DNA OF SHIPBUILDING



NVL Group is a privately owned group of renowned Northern German shipyards and related companies, formerly known as Lürssen Defence. Customers can rely on the company to consistently provide tailored, smart and cost-effective naval solutions that keep navies mission ready around the world. With deep roots in shipbuilding, NVL Group delivers high-quality naval and coastguard vessels, as well as comprehensive services throughout the entire life cycle of their fleets. Construction at NVL Group's shipyards is supplemented by licensed manufacture at customer facilities worldwide under technology transfer arrangements. As an independent enterprise, the company remains flexible to market changes and operates a dynamic, safe and future-oriented business.

#### More about NVL Group's naval solutions:

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## **Israel Shipyards Ltd**



Israel Shipyards Ltd (ISL) is a leading player in the maritime industry with a proven track record of delivering high-quality Naval and commercial marine solutions to customers around the world. The company was established in 1959 and is based in Haifa Bay, Israel. The company was originally established as a state-owned enterprise, by 1995 the company was privatized.

Situated on the Mediterranean coast, the company has easy access to the major shipping lanes that connect Europe, Africa, and Asia. This allows the company quickly and efficiently service the needs of its customers, and to respond quickly to any changes in market conditions.

Over the years, Israel Shipyards has built and maintained a wide range of vessels, including Naval ships, patrol boats, and commercial vessels, and has become a reliable partner for both Naval and commercial customers.

In addition to its location and experience, Israel Shipyards has a reputation for high-quality work and on-time delivery, which has helped it to maintain a strong position in the maritime industry. The company's shipyard is equipped with the latest technology with in-house departments and production lines that based on experience, top-scaled ex-Israeli Navy engineers, managers, and production teams who utilize the Navy's shared combat experience portfolio and their access to the latest defense technologies in the customized planning of every new vessel and repair project, and allows it to provide high-quality design, construction, repair, and maintenance services to a wide range of vessels all on-site at the company facilities.

Israel Shipyards' cutting-edge plant also includes large deep-water docks, large workshops, and floating docks, allowing easy modification, and upgrading — including the most complex renovations, conversions, and expansions — of all existing vessels.

Israel Shipyards' value is to deliver complete, integrated, tailor-made "Turn-Key" solutions of the highest quality – from the vessel itself to all installed systems – according to the customer's precise requirements. Protecting shorelines around the world, the company specializes in defense systems that prevent illegal activity and maritime terrorism and defend territorial waters and EEZ. It provides customized missile corvettes, Offshore Patrol Vessels (OPVs), fast patrol craft, Landing crafts, commercial ships, tugboats, multipurpose boats, and floating docks – many of which are in active service in the Israeli Navy as well as in the navies, Coast Guards, and law enforcement authorities around the world.



One of the key areas where Israel Shipyards has made a significant impact is in the design and construction of landing craft. These vessels are specifically designed to transport personnel and equipment from a remote location or shore to a beach or other coastal area. They are often used for amphibious operations, such as military invasions, and can also be used for civilian purposes, such as support missions in disaster-stricken areas e.g., ferrying goods and people to and from islands.

Israel Shipyards has developed several innovative designs for landing craft that are used by the Israeli Navy and other militaries around the world.

In 1962 The company supplied the first 36m "Ezion-Gaver" landing craft, and since then Israel Shipyards supplied the Israeli Navy with a variety of Landing craft of the sized 36-61 meter, along with multipurpose vessels such as the renowned SHALDAG and the new corvette RESHEF class.

In addition to building landing craft for the Israeli Navy, Israel Shipyards also exports landing craft to customers worldwide. The company has a strong reputation in the international market for constructing high-quality, reliable landing craft that can be customized to meet the specific needs of each customer.

Another advantage of Israel Shipyards is its usage of advanced technologies and materials in the construction of its vessels including of course the landing craft.

Today, as part of the ISL portfolio and alongside various vessel construction projects, the company is in an advanced construction stage of two more landing craft for a customer in Africa.

The company uses a variety of special marine materials, to create lightweight, durable vessels that can withstand the harsh conditions of amphibious operations.



© ISL Launch 36m Landing craft

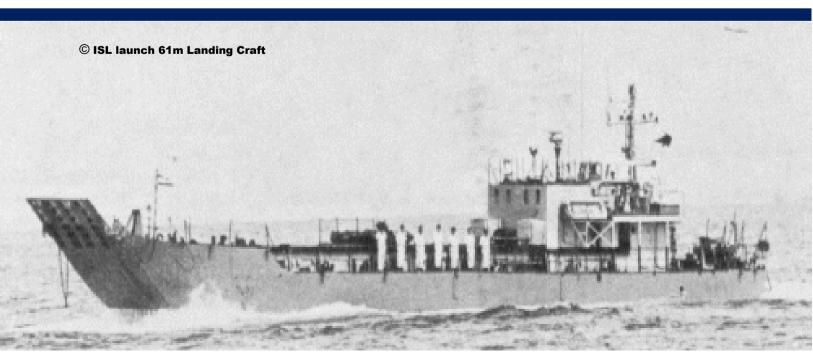


© ISL Landing Craft 23.8m

Another advantage of Israel Shipyards Ltd is its commitment to sustainability and environmental responsibility. The company is dedicated to reducing its environmental impact and promoting sustainable practices throughout its operations.

This includes using eco-friendly materials, implementing recycling programs, and investing in renewable energy sources.

The company's vision is to be a leading provider of maritime solutions globally, by continuously improving its technology, products, and services, while always keeping its customer's needs at the forefront.



# ADVENT CMS New Generation Combat Management System

ADVENT CMS, as one of the World's leading advanced Combat Management System, is the essential component of the naval combat systems, meeting the command and control operational requirements of the current and future command missions. ADVENT CMS is a robust, modular, and C4I system (Command, scalable Communications, Computers, and Intelligence) that provides planning, tactical picture compilation, decision-making, threat evaluation, and weapon control to meet current and emergent threats. Having a seamless interface to a wide range of weapon and sensor systems from different suppliers/OEMs increases the flexibility of ADVENT CMS and adds strength to HAVELSAN's C4ISR capabilities.

New generation combat management system ADVENT CMS's fully integrated multi-link and Network Enabled Capability provides increased interoperability with other ADVENT units. Provides task force-oriented capabilities, including Common Engagement Capability (CEC) and common training infrastructure. ADVENT CMS's Net-Centric training capability and interactive training capability allow joint training and allocate a part of the ADVENT for training while the rest can remain operational. ADVENT's new generation combat management system is available for all types/sizes of warships and other naval platforms.

#### SANCAR AUSV READY FOR FUTURE MISSIONS

With the developing technology, the frequency and variety of security threats have increased for the global navies. Autonomous unmanned surface vehicles integrate modern technology into military units by sensing the environment using sensor systems, performing crucial tasks such as ISR (intelligence, surveillance, reconnaissance) and defense without personnel within the scope of the requirements of digital battlefields. In the upcoming period, armed unmanned surface vehicles will become an inevitable force multiplier of modern navies and will respond to asymmetric threats.

In response to the needs of modern navies, HAVELSAN produced the SANCAR Armed Unmanned Surface (AUSV) Vehicle in cooperation with Yonca-Onuk Shipyard. Since modular construction technology is used in the production of SANCAR AUSV, additional payloads can be easily integrated into the platform to fulfill the expected duties while performing different tasks that may arise in the future.

SANCAR AUSV has a stable communication infrastructure without interruption, based on RF/GSM/SAT systems used all together. This enables it to perform operations on extended ranges effectively.





© Havelsan

Thus, SANCAR can transfer tasks among different ships, performing network-centric operations with manned/unmanned platforms as a task group and easy adaptability for swarm operations. In this respect, SANCAR AUSV has a technology infrastructure that surpasses its global competitors. Developed to autonomously fulfill the duties of port/base protection, search/rescue, intelligence, reconnaissance, surveillance, patrol, surface warfare, and mine countermeasures, SANCAR AUSV will minimize the risks for human life, and it will enable many tasks to be carried out more cost-effectively with modular payloads. As such, it has become one of the most versatile platforms designed.

The subject of integrals help in the part of the body of Company and the part of the part

Developed using autonomous systems technologies such as artificial intelligence and data fusion, it has a length of 12.73 meters, a width of 3.3 meters, and a displacement of 9 tons. The platform can reach over 40 knots and has a cruising range of over 400 nautical miles.

The platform, which can operate up to Sea State-4, also provides convenience in integrating weapon and electronic systems of different types and purposes, thanks to its modular structure. Considering the weapon systems, SANCAR AUSV has a 12.7 mm stabilized gun turret, and its defense capabilities can be increased by integrating a tactical missile system.

Mini Ship Data Distribution System is also integrated into the platform. Another

factor that makes SANCAR AUSV different is the integration of a telescopic mast with a navigation radar camera with a collision avoidance system. This structure again increases modularity and provides flexibility in using new systems. SANCAR AUSV, a superior platform with many cutting-edge technologies, will prepare the world's navies for the future operational environment.



#### Secure Communication Platforms

With the increasing development of technology, Internet has become an unavoidable network that institutions use. In light of this, the platforms that are used for communication, information sharing and information keeping via the Internet should be secure. HAVELSAN with its vast know-how in the field of Information and Communication Technologies always ready to meet this need of its customers. With the top experts in ICT, HAVELSAN keeps on designing and developing advanced secure communication platforms. Some of the platforms that HAVELSAN developed HAVELSAN Drive, a secure file storage and sharing platform, HAVELSAN Diyalog, a secure video conference system, HAVELSAN ileti, a secure communication mobile platform and HAVELSAN Data Diode, a new generation data diode and secure node.

HAVELSAN Drive automatically backs up the corporate data of companies all documents and media files (photo, video, and audio files) of endusers. These documents can be accessed and shared via mobile (devices with IOS and Android operating systems) and web browsers within the scope of collaboration groups and authorizations. HAVELSAN Drive is a system that supports Cloud Technologies, which provides secure, fast, and easy access from all over the world.

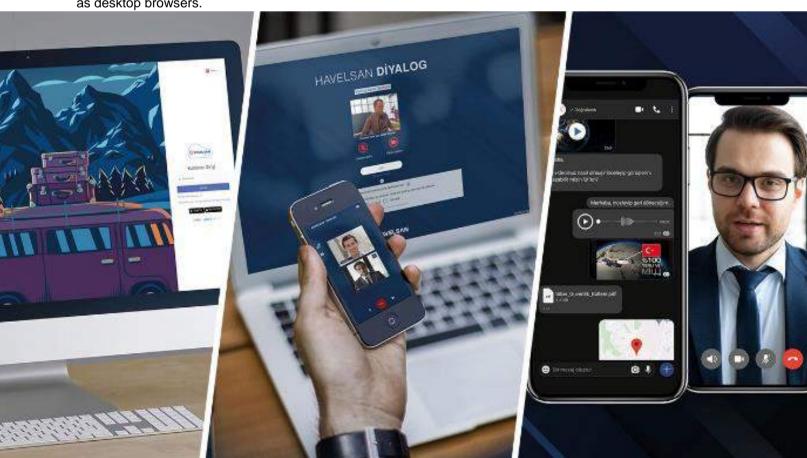
HAVELSAN Diyalog is a video conference system that is easy to install and manage and provides secure, high-quality video and audio calls. The system can also work on mobile platforms as well as desktop browsers.

HAVELSAN Diyalog can work on-premise on corporate servers as well as in a cloud environment. Since the system provides high security, institutions that prioritize security can use it. In addition, it is easy to use with its user-friendly interface.

HAVELSAN ileti is an instant messaging application that enables corporate personnel to communicate end-to-end at the highest level of security while messaging among themselves, sharing media and files, and making collective calls through corporate groups. It can be used actively on all iOS and Android Devices. It also has security technologies unmatched by its competitors to ensure reliable communication, which is the product's greatest value proposition. HAVELSAN ileti, which has software and hardware-supported security options, is the first instant messaging product that uses White-Box Cryptography.

HAVELSAN Data Diode is the Next Generation Data Diode which was developed in a modular structure to meet the inter-network data transfer needs of institutions and businesses in the fields of defense, security, energy, finance and those with isolated networks containing sensitive data. By guaranteeing one-way data transmission at the intersection points of networks with different security levels, it prevents the transfer of sensitive data to lower-security networks.

HAVELSAN's secure communication platforms are easy to use in every sense and can be a functional part of daily corporate life. With these platforms, HAVELSAN proves its grounded place in the industry and shows its capabilities to enlarge according to the needs of its customers.



# Egypt Purchases New Boeing CH-47F Chinooks to Modernize Fleet

- Contract continues 40+ year partnership and provides Egyptian Air Force with advanced multi-mission helicopter capabilities
- Deliveries anticipated to begin in 2026

The U.S. Army has awarded Boeing a contract to produce 12 new CH-47F Chinooks for the Egyptian Air Force. With this \$426 million foreign military sale, Egypt will replace its fleet of CH-47D aircraft with the modern F model, and benefit from its advanced multi-mission capabilities.

"The F-model aircraft will enhance Egypt's Chinook capabilities and help effectively accomplish its heavy-lift objectives," said Ken Eland, vice president and H-47 program manager. "Boeing's partnership with the Egyptian Air Force remains strong as we continue to work together to modernize their fleet."

The CH-47F is an advanced multi-mission helicopter for the U.S. Army and international defense forces. It contains a fully integrated, digital cockpit management system, Common Avionics Architecture System cockpit and advanced cargohandling capabilities complementing the aircraft's mission performance and handling characteristics.

"Boeing is committed to supporting the defense modernization mission of the Egyptian armed forces and ensuring the best capability for Egypt's national defense and security," added Vince Logsdon, vice president, Boeing International Business Development.

Team Chinook is led by the U.S. Army, who with 19 allied international customers, collectively operate a fleet of more than 950 aircraft.

As a leading global aerospace company, Boeing develops, manufactures and services commercial airplanes, defense products and space systems for customers in more than 150 countries. As a top U.S. exporter, the company leverages the talents of a global supplier base to advance economic opportunity, sustainability and community impact. Boeing's diverse team is committed to innovating for the future, leading with sustainability, and cultivating a culture based on the company's core values of safety, quality and integrity.



## Chief of the Air Staff, Air Marshal Oladayo Amao "We are winning the war against the terrorism"

On 8 December 2022, the Chief of the Air Staff, Air Marshal Oladayo Amao, has stated that the magnanimity of President Muhammadu Buhari in providing the Nigerian Air Force (NAF) with new and modern platforms and NAF's ability to effectively operationalize their usage in the battlefield has been instrumental to the level of successes been recorded against terrorists and insurgents. He stated this earlier today while on operation tour of 205 Combat Search and Rescue Group, Kerang Plateau State and 22 Quick Response Wing, Lafia in Nasarawa State. According to the CAS, there was no doubt that some of the new platforms in NAF's Order of Battle, particularly the JF-17 Thunder aircraft, the A-29 Super Tucano aircraft and the Unmanned Combat Aerial Vehicles (UAVs) have been one of the many reasons why, in his words, 'We are winning the war against terrorism in the country.'

He however stated that more still needed to be done to completely decimate and flush out the remnants of terrorists still preying on soft targets. He also warned that being complacent at this point would be harmful to ongoing operations and called for extra focus, vigilance and caution.

Air Marshal Amao also informed the personnel that the NAF is expecting the delivery of additional new platforms which the President has approved for the NAF. These platforms include 2 CASA-295 medium airlift aircraft, 2 Beechcraft King Air 360, 4 Diamond DA-62 surveillance aircraft, 3 Wing Loong II UCAVs and 6 T-129 ATAK helicopters. Other ongoing acquisitions include 2 Agusta 109 Trekker multi-role helicopters, 12 AH-1Z attack helicopters and 24 M-346 attack aircraft to boost NAF's air power employment and projection capabilities as well as air combat training. A few of these additional platforms are expected to be delivered to the NAF before the end of First quarter 2023. On the upcoming general elections, the CAS noted that while in exercising their constitutional right to vote for any candidate of their choice, they must desist from engaging in any form of political activities. According to the CAS, 'We must continue to maintain our integrity and neutrality as a Service. You must also remember that as custodians of Nigeria's constitution, we must ensure that the public's perception of the NAF and the Armed Forces of Nigeria remains positive and unblemished.' The CAS was accompanied by some Branch Chiefs, the Air Officer Commanding Special Operations Command, and some Directors.



# United States and Mozambique Partner to Improve Maritime Security



U.S. Ambassador to Mozambique Peter H. Vrooman and the Permanent Secretary of the Ministry of National Defence, Casimiro Mueio.

As part of ongoing security cooperation between the United States and Mozambique, the U.S. Government provided a 10-meter coastal patrol boat to the Mozambican Navy. In addition to the boat, Mozambican Navy officials will participate in training offered by the U.S.-based manufacturer, SAFE Boat International.

The high-speed boat is valued at \$700,000 and is used for interdictions and maritime boarding operations.

"This vessel will enhance maritime security and enable naval forces to respond to increasingly complex challenges and threats," said U.S. Ambassador to Mozambique Peter H. Vrooman during the handover ceremony in Maputo. "We provide training and educational opportunities for Mozambican and American soldiers, sailors, and marines who choose to serve their country. Together, we are working toward a stronger, more resilient Mozambique," he said.

This donation is part of a broader set of security assistance programs designed to enhance the resiliency of the Mozambican Navy in fighting terrorism and transnational organized crime throughout Mozambique.

These programs include International Military Education and Training (IMET), three Joint Combined Exchange Training (JCET) programs, a Maritime Maintenance and Logistics Advisor program, and equipment donations designed to improve, maintain, and support the Navy in the execution of its defense strategy.

© https://mz.usembassy.gov U.S. Government provided a 10-meter coastal patrol boat to the Mozambican Navy



# U.S. donates \$9 million in weapons, equipment to support the Somali National Army

The U.S. presented \$9 million in weapons, vehicles, medical supplies and other equipment to the Somali National Army in a ceremony Jan. 8, 2023, attended by Somali Minister of Defense Abdulkadir Mohamed Nur Jama and U.S. Ambassador to Somalia Larry André.

"This is a Somali-led and Somali-fought campaign. The United States reaffirms our commitment to support your effort." - Amb. André

"We cheer the success achieved by Somali security forces in their historic fight to liberate Somali communities suffering under al-Shabaab," said Ambassador André. "This is a Somali-led and Somali-fought campaign. The United States reaffirms our commitment to support your effort."

Aside from heavy weapons, equipment included support and construction vehicles, explosive ordinance disposal kits, medical supplies, and maintenance equipment for vehicles and weapons. Most of the supplies are already on their way to Hishabelle and Galmudug States to support SNA troops.

Minister of Defense Abdulkadir Mohamed Nur Jama thanked the U.S., saying, "Allow me to convey the appreciation of the Federal Government of Somalia to the Government of the United States of America for the continued support to Somalia's peacebuilding process and the support for the fight against terrorism. This support comes at a critical time for our forces as we boost their capabilities to combat al-Shabaab." The Minister was joined by Chief of Defense Forces Brig. Gen. Odowaa Yusuf Rageh for the ceremony.

The weapons, including light and heavy machine guns, were purchased with U.S. Department of Defense funding. They are marked and registered pursuant to the Federal Government of Somalia's Weapons and Ammunition Management policy, designed to account for and control weapons within the Somali security forces and weapons captured on the battlefield. Notification to the UN Security Council is conducted by the Federal Government of Somalia in close coordination with the Office of Security Cooperation of U.S. Embassy Mogadishu inaccordance with UN Security Council resolutions.

The weapons will support SNA-Danab battalions, including battalions currently participating in operations in Hirshabelleand Galmudug, providing an increase in the lethality and mobility of units participating in these operations.



# South African Etion Create offers its CheetahNAV vehicle navigation system for export and possible technology transfer

A new military vehicle navigation system designed and developed by Pretoria-based Etion Create is now ready for the local and export markets.

Designed for harsh environments and battlefield conditions, the CheetahNAV provides outstanding situational awareness. The crew of a light military vehicle can count on highly accurate position information, irrespective of whether they are denied satellite navigation. This is achieved through an advanced inertial measurement system (IMS), comprising several aids, including a gyrocompensated compass and an advanced Kalman filter-based algorithm.

"We are confident that the system provides deadreckoning horizontal position accuracy of 0.2% of distance travelled in a GNSS denied situation," said Jan Hurter, senior product manager. "This translates, by way of example, to accuracy of just 200 metres over a distance of 100 kilometres."

The CheetahNAV can integrate with any number of different INS systems and can be aligned with any of the satellite navigation constellations. Combined with GNSS and compass information, the system enables dead-reckoning and accurate positioning of the vehicle in tactical situations. The tactical grade integral inertial measurement unit (IMU) ensures jamming-free operation.

Some of the guidance cues the system provides to the crew during tactical manoeuvres include the vehicle's current position, true heading and desired heading towards the next waypoint, current speed and desired speed to reach the next waypoint or destination on time, and the next waypoint or destination. It also shows the pitch and roll attitude of the vehicle and the track it has travelled.

This data is displayed on a sunlight readable touchscreen enabled moving map display unit measuring 11.6" diagonal, in 16:9 TFT format, with a 1920×1080 resolution. Etion Create is also offering a slave unit for the vehicle driver, as the main display might be positioned elsewhere in a space constrained vehicle. This slave unit, measuring 3.5" diagonal TFT, displays information that is specifically required by the driver.

Significant benefits of the CheetahNAV system include ruggedness for extreme battlefield conditions and 28V or 12V DC operation in line with military standards. Moreover, it boasts a high operational reliability.

"It is important to note that Etion Create as original design manufacturer (ODM), is focusing the CheetahNAV on the export market, including the possibility of technology transfer for indigenous manufacturing," said Hurter. "Besides we offer a multi-language option, which is certainly a key advantage in multinational operations that are almost the norm nowadays."

Importantly, the CheetahNAV is non-ITAR controlled, which is the preference of most land forces around the world today to meet their battlefield management requirements.

Having utilised the building blocks of previously developed MOTS (military off-the-shelf) technologies, Etion Create considers the system to be at a high TRL (technology readiness level), and thus available for the export market.







© Etion

# African special operations forces U.S. SOC-Africa announce Flintlock 2023

U.S. Special Operations Command Africa will conduct Flintlock 2023 in Ghana and Côte d'Ivoire from March 1-15, 2023, with approximately 1,300 service members from 30 participating nations.

"Flintlock will represent the talent of all these countries collectively working to solve the security challenges that pose threats across the region." - Col. Zyla

Flintlock is U.S. Africa Command's premier and largest annual special operations exercise combining military and law enforcement to strengthen African and international special operations forces capabilities. The exercise, which first premiered in 2005, operates on the basis of mutual respect and collaboration to advance the shared interests of regional stability.

"Flintlock will represent the talent of all these countries collectively working to solve the security challenges that pose threats across the region," stated SOCAF Deputy Commander, Col. Robert Zyla, during a January 13 combined press conference in Accra. "Violent extremism threatens the stability of not only Africa, but our partners around the globe. A safer and more secure Africa will result in a more prosperous global society and security environment."

Flintlock intends to strengthen the ability of key partner nations in the region to counter violent extremist organizations, collaborate across borders, and provide security for their people, while respecting human rights and building trust with civilian populations. The robust participation of African and international partners reflects a mutual commitment to countering malign activity and violent extremism throughout the Sahel and West Africa region. While regional security is the focus of the exercise, lessons learned at Flintlock will create lasting effects beyond North and West Africa.

U.S. forces have historically partnered with Ghana and Côte d'Ivoire through multiple military and civil affairs exchanges. Last year, Côte d'Ivoire hosted Flintlock 2022, with more than 400 participants from ten nations. This year's iteration aims to continue reinforcing the collective ability of allied and partner nations to address key security challenges.



### **US Secretary of Defense Receives Egyptian** President at the **Pentagon**

US Secretary of Defense Lloyd J. Austin III welcomed Egyptian President Abdel Fattah El-Sisi to the Pentagon on 14 December, saying Egypt is not only a leader in the Middle East and Africa, but on the world stage.

The Secretary also noted the United States and Egypt are marking 100 years of diplomatic relations between the two countries. El-Sisi and Austin discussed a number of issues during their meeting, the US Department of Defense (DoD) reported.

"The administration greatly appreciates Egypt's leadership and cooperation and achieving our shared security objectives," Austin said at the top of the meeting.

"We've seen that leadership and Egypt's courage in becoming the first Arab state to establish diplomatic relations with Israel, for your [responsibility and stewardship] of the Suez Canal, and to the vital assistance that Egypt provided and securing the ceasefire in Israel and Gaza."

Austin thanked the President for Egypt assuming command of Combined Task Force 153 that assures the security of the sea lines of communication in the Red Sea.

Austin said the United States remains committed to ensuring Egypt has the capabilities to defend its people and its territory. "We will continue to work with Egypt and your neighbors to strengthen interoperability, integrated air and missile defense and maritime security," Austin said.

For his part, El-Sisi thanked the Secretary for his welcome and said the two countries had much in common and many common interests. He noted that he and Austin had many constructive conversations when the secretary served as the commander of U.S. Central Command.

Earlier, Austin spoke on 13 December as the host of the Peace, Security and Governance Forum at the White House-led U.S.-Africa Leaders Summit in Washington, D.C. The forum was co-hosted by Secretary of State Antony Blinken and Samantha Power, Administrator of the U.S. Agency for International Development.

"We want to listen to what's important to the leaders in the region and the specific countries," Austin said.

Also central to the forum were Chairperson of the African Union Commission Moussa Faki Mahamat, President of Mozambique Filipe Nyusi, President of Somalia Hassan Sheikh Mohamud and President of Niger Mohamed Bazoum.

The U.S. has military personnel based in all three of those nations, Austin said, and he thanked the leaders for allowing the U.S. to partner there with their forces to advance mutual security internists. (US Department of Defense (DOD)

Photo ©: Air Force Tech. Sgt. Jack Sanders, DOD)



# GHANA CHIEF OF DEFENCE STAFF VISITS ESSMGB GHANCOY 1



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The Chief of Defence Staff (CDS) of the Ghana Armed Forces (GAF), Vice Admiral Seth Amoama has paid a day's working visit to Ghana Company 1 (GHANCOY 1) serving with the ECOWAS Stabilisation Support Mission in Guinea-Bissau (ESSMGB) on Sunday 18 December 2022. The aim of the visit was to familiarize himself with the operations, administrative and logistics state of the Unit as well as the wellbeing of troops following their deployment in June 2022.

The CDS, who was attending the ECOWAS Chiefs of Defence Staffs' Conference in Guinea-Bissau from 17-21 December 2022 used the opportunity to visit the Unit. He was accompanied by the Deputy Chief of Defence Intelligence, Brigadier General James Hagan and Deputy Director General of Joint Operations at the General Headquarters, Col OJ Ampadu. The visit by the CDS was the first official visit the Unit had received from GAF.

In his interaction with the troops, the Vice Admiral Amoama expressed how proud GAF was of the performance of GHANCOY 1, especially the Company's tireless efforts and sacrifices to ensure peace and stability in Guinea-Bissau. He further applauded the hard work, dedication and determination exhibited by the troops so far. He emphasised that GHANCOY's role in protecting the President and the Presidency of Guinea-Bissau as well as key installations in the country highlights the level of confidence and trust the Presidency of Guinea-Bissau had in GAF. He later commended the leadership and the entire unit and urged the Unit to keep up the good work. Lastly, he assured the Combat Team Commander of his commitment to address the challenges they were facing.

In his remark, the Unit's Commander, Lt Col Korsah expressed appreciation to the CDS for making time to visit them in spite of the tight schedule of the Conference. He further thanked the CDS for his immense support and commitment towards GHANCOY 1.

#### Cooperation of the Arab Organization for Industrialization with the Korean fertilizer company KFC



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Major General, Engineer Mokhtar Abdel latif, Organization Chairman of the Arab Industrialization, stressed the implementation of President Abdel Fattah El-Sisi's directives to strenathen partnerships with international expertise, localize modern technology, reduce imports, and increase added value in various industries with national products under the slogan "Made in Egypt." This came during the signing of a memorandum of understanding between the Arab Organization for Industrialization and the Korean Fertilizer Company, KFC.

In this regard. Mokhtar Abdel latif explained that the areas of cooperation include the localization of manufacturing technology and co-production of liquid fertilizer products, pesticides, insects, pure nano chlorine dioxide, poultry, animal and fish feed, noting that the first stage in which KFC provides packaging lines for organic pesticides In the second phase, a complete production line will be supplied through the Korean company, according to the latest technologies of the fourth industrial revolution, pointing to the training of human cadres on smart digital manufacturing systems and mechanisms to produce high-quality products to meet the needs of the local market and export to the countries of the African and Arab region.

For his part, senior officials of the Korean Fertilizer Company "KFC" expressed their pride in the importance of cooperation with the Arab Organization for Industrialization, the industrial backbone of the Egyptian state and its expertise in various manufacturing and human capacities in accordance with international quality systems in various industries, stressing that the Egyptian market is attractive for investments.

## U.S. transfers C-130 aircraft to Nigerien partners



#### © Africom

U.S. Embassy in Niger personnel and members of the Nigerien Armed Forces oversaw the transfer of a C-130 Hercules aircraft to the Nigerien Air Force during a handover ceremony at Air Base 101 in Niamey, Niger, on Jan. 4, 2023. This is the second C-130 Hercules offered to the Niger Air Force.

#### Africa Leaders Summit



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Secretary of State Antony J. Blinken and Secretary of Defense Lloyd J. Austin III host a multi-lateral meeting with (left to right) President Mohamed Bazoum of Niger, President Ismail Omar Guelleh and President Hassan Sheikh Mohamud of Somalia at the Africa Leaders Summit at the Walter E. Washington Convention Center in Washington, D.C., Dec. 13, 2022. "We thanked the presidents for hosting U.S. forces and their focus on countering violent extremist threats," said Austin after the meeting.

By CHAD MCNEELEY, Office of the Secretary of Defense

# GOC EASTERN COMMAND BOLSTERS TROOP MORALE IN BONI REGION



Major General Juma Mwinyikai, General Officer Commanding Eastern Command on 06 Jan 2023, visited a number of selected forward operation bases under Operation Amani Boni in Lamu County. Maj Gen Mwinyikai was received by Manda Bay Base Commander, Brigadier Peter Chelimo alongside OAB commander Col Emmanuel Ptiony. He visited troops deployed in Bargoni, Minjila, and Mkunumbi.

He thanked the soldiers for their continued efforts in serving the nation and more-so urged them to continue strengthening operations within the region to enhance security. "I'd like to encourage you to remain steadfast and continue with the noble efforts of providing the much-needed security." He further affirmed that the sustained presence and posture contribute to ensuring normalcy prevails within the County.

He called on their agility and to be robust when conducting their duties albeit professionally in line with the KDF standards.



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# IDEX and NAVDEX 2023 to showcase a range of new and exciting features

Under the patronage of HH Sheikh Mohamed bin Zayed Al Nahyan, President of the UAE, ADNEC Group is set to host the 16th edition of the International Defence Exhibition and Conference (IDEX 2023) and the 7th edition of the Naval Defence Exhibition and Conference (NAVDEX 2023), which will take place on 20-24 February 2023. Organised by ADNEC Group at the Abu Dhabi National Exhibition Centre, in association with the UAE Ministry of Defense, the events are set to showcase a wide range of new features and attract leading participants and exhibitors from the international defence industry.

The upcoming edition of IDEX marks the 30th edition of the event and, along with NAVDEX these events have become the largest of their kind in the world. The events are expected to host high-calibre participation, including leaders, decision-makers, ministers and senior officials, as well as industry experts and professionals from all over the world. As part of the event week, in a first of its kind, ADNEC will host a series of high-level round table discussions with prominent industry thought leaders and commentators. These leading industry experts will gather to discuss recent and critical topics around the defense and naval industries, with an outcomes-based objective to collaborate on focused industry reports.

IDEX and NAVDEX will introduce IDEX Next Gen. a space dedicated for startups which will enable entrepreneurs to demonstrate their solutions and technologies in the defense and naval sector to leading figures in the industry. The events will also introduce the Innovation Trail, a focused journey through the exhibition, highlighting the latest products and innovations for the defence and naval community, from the world's leading brands. Exhibitors will be able to submit their newest and most innovative products and solutions for selection as part of this curated journey, which will attract the interest thousands of international and local buyers. On the content side, and again as a first of its kind, IDEX and NAVDEX will each feature dedicated free to attend theatres for attendees to learn about the latest industry critical topics., NAVDEX Talks, located in the brand-new marina hall, will focus on the naval defence industry, whereas IDEX Talks will include sessions that will cover a variety of engaging topics related to the global defence sector. These topics include, Women and Youth in Defence, Defense Heroes and Motivational Masterclasses. The events will also feature an area for fans of defense history. 'Defence Through the Decades' will showcase an interactive gallery style, highlighting products and technology from the industry throughout the past 30 years. IDEX and NAVDEX provide a globally leading platform, showcasing the latest international defence innovations and technologies, along with the most advanced technology and equipment developed by defence industries across the world. The previous editions in 2021 recorded renowned success, welcoming over 62,000 visitors and more than 900 local, regional and international companies from 59 countries, in addition to hosting 35 national pavilions.









### **WELDING BEGINS**

On 14 December 2022, in Varna, Bulgaria NVL Group and its local partner MTG Dolphin, together with representatives of the customer, started production of the second of two modular multipurpose patrol vessels (MMPV) for the Bulgarian Navy. The tradition of the steel cutting is the first major milestone in the production process of a new ship. The two vessels are being built at MTG Dolphin in Varna under the management of the NVL Group and with the participation of numerous Bulgarian suppliers.

Commander of the Bulgarian Navy, Rear Admiral Mihaylov, stated during the ceremony: "We are very proud to be part of the ceremony of starting steel cutting for construction of the second Multipurpose Modular Patrol Vessel (MMPV) for the Bulgarian Navy. This ship will give the opportunity to Bulgarian naval salors to fulfil all tasks for defending national maritime interests and to successfully participate in allied operations and missions."

"The fact that we are standing here today celebrating the steel cutting of the second vessel is the result of the excellent collaboration with our customer and with our local partners, especially MTG Dolphin. We have been working together, side by side, for two years now, progressing towards the realization of the most important naval project in Bulgaria to date. This fills us with pride", said Dirk Malgowski, Managing Director of NVL B.V. & Co. KG.

The vessels, which are 90 metres in length, with a displacement of approximately 2,300 t, are based on a proven NVL design and feature an integrated combat management system. The units are predestined for tasks within the framework of international alliance missions for NATO and the EU and will enable the Bulgarian Navy to counter air and land-based threats as well as surface and undersea threats.

Delivery of the first vessel is scheduled for the third quarter of 2025, and the second vessel a year later. "We are honored to be partner of NVL for MMPV project and to work together with one of the most advanced European shipbuilders. Our cooperation is outstanding, and results speak for themselves", said Svetlin Stoyanov, CEO of MTG Dolphin.





# Paramount ramps up production and delivery of new 'Maatla' 4x4 Light Protected Vehicle (LPV) to customers

Paramount Land Systems To Further Produce New Maatla Variants For Numerous Missions Given Heightened International Interest.

Abu Dhabi, United Arab Emirates (UAE), 14.12.2022 – On the heels of the exciting launch of the Maatla 4x4 Light Protected Vehicle (LPV), Paramount Land Systems, a subsidiary of Paramount, the Abu Dhabi-headquartered global aerospace and technology company, has announced that 50% of the newly announced Maatla vehicle contracts have already been completed with deliveries underway to customer countries.

The new multi-role 'Maatla' (meaning 'Power' in Setswana) was launched at the African Aerospace and Defence Exhibition (AAD 2022) held in September. It was during the expo that Paramount announced the first Maatla contracts totaling 50 vehicles. The Maatla and has been designed to address the increasing demand for lighter weight vehicles, while offering advanced capabilities and reconfigurability in the field. Given immediate interest for the Maatla's capabilities from various countries, each with diverse requirements, Paramount plans to manufacture and deploy new Maatla variants, with a focus on conducting a range

of missions, such as Command and Control, CBRN detection, police and ambulatory, reconnaissance and recovery, and border patrol.

Eric Ichikowitz, Senior Vice-President of Paramount International, stated that, "The immediate reaction and global demand for our newly launched Maatla Light Protected Vehicle (LPV), in this highly competitive marketplace, is a testament to our commitment to mission survivability and outstanding vehicle performance, while addressing the requirements of our customers.

"For over two decades, we have leveraged and championed groundbreaking innovations in amoured vehicle design and manufacture. The Maatla is a product of working closely with our customers to finding solutions to their unique challenges. In matter of a few months, we have unveiled a new vehicle, secured orders and now deliveries are in full swing to customers. This is a proud achievement, and we are delighted to see the response to the experience we bring in offering Maatla to the world".

The Maatla has been manufactured on a commercial vehicle chassis, capable of addressing all types of terrain for its nine-crew personnel. The vehicle is fitted with a 2-speed transfer case and 3 differential locks, which allows it to cross almost any obstacle in difficult territories. Its Smart Floor" technology further enables its seating to be quickly removed and the vehicle to be configured for alternative mission requirements, with day/night vision devices and extra sensors able to be fitted to provide 24/7 operability.

The Maatla provides as a minimum, ballistic and blast protections to STANAG 4569 Level 1, and can protect against handguns and other small caliber ball rounds. The vehicle also offers underbelly protection against M26 hand grenades or a blast equivalent. The Maatla can reach a road speed of up to 100 km/hr, with a cruising range of up to 600 km when traveling at 80 km/hr, and a fording depth of up to 750 mm without preparation. The vehicle can be operated in extreme environments, with temperatures ranging from -10°C to + 55°C, also without any preparation.

Deon Grobler, CEO of Paramount Land Systems, added that: "Our innovative techniques in manufacturing the Maatla Light Protected Vehicle (LPV) are driving the tempo of customer delivery, which is mission critical in our view, given the ever changing and asymmetrical environment which many countries and their armed forces find themselves in. We look forward to the continued rollout of the multi-purpose Maatla and to the development of its mission specific variants to meet our customers evolutionary requirements"



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