

MILITARY AFRICA

THE LEADING DEFENCE MEDIA IN AFRICA

SEPTEMBER 2024



**India offers modernized
T-72 tanks for export,
Africa included**

- 
- 
- 
- Position Your Brand as a Defence Leader
 - Introduce New Products to the Market
 - Reach Decision-makers in the Military

**ADVERTISE
WITH US**

START WITH \$300

**30%
OFF**



Business@Military.africa



+234 810 3689898



www.military.africa/advertise





Editor-in-Chief

Sarah Lesedi

Editorial

Ekene Lionel

Creative Director

- Patrick Kenyatte

Correspondents

- Darek Liam
- Patrick Kenyatte
- Kazim Abdul

Publisher

Lionstar Technologies

Advertising and Editorial Enquiries

Email: Business@military.africa

Tel: +234 810 368 9898

Email

Business@military.africa

Africanmilitaryblog@gmail.com

Website

www.military.africa

Address:

Wuse 2 district, Federal

Capital Territory, Abuja, Nigeria



India offers modernized T-72 tanks for export, Africa included

There is strong demand for these tanks, particularly from countries in Africa.

CONTENT

LAND

Benin Army acquiring armoured vehicles from France and EU



P: 14

AEROSPACE

South Africa expresses interest in Embraer C-390 after evaluation



P: 24

NAVAL

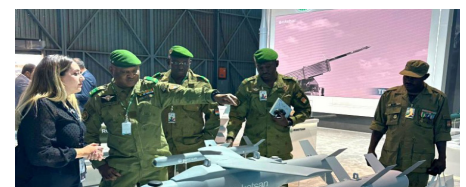
South African military loses maritime patrol capabilities as C-47 retires



P: 27

INDUSTRY & BUSINESS

Roketsan aims to expand reach in Africa



P: 30

UNMANNED SYSTEMS

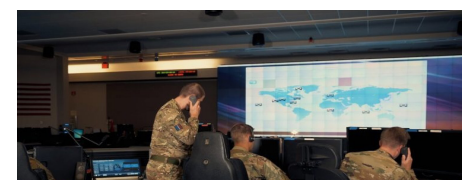
Avior Labs' Elevation VTOL UAV Enters Production



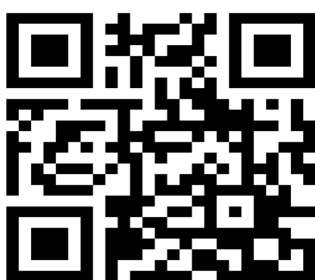
P: 34

SECURITY

Space Force provided overwatch for Nigér withdrawal



P: 36



© 2024 Military Africa.
All rights reserved.

This material may not be reproduced, distributed, transmitted, cached, or otherwise used without the prior written permission of Military Africa.

For inquiries or permissions, please contact:
Business@military.africa

India offers modernized T-72 tanks for export, Africa included



Ajeya MK1 (Unconquerable) – Indian version of the T-72M1. In parallel with buying various T-72M off-the-shelf from the Soviet Union, India also launched its domestic production at Heavy Vehicles Factory. Ajeya MK2 – Indian version of the T-72M1 with ERA and banks of 6 smoke grenade-launchers on each side.

STAFF WRITER

India has embarked on a significant defence initiative to modernize its fleet of Russian-origin T-72 tanks, aiming to export these upgraded models to international markets. The primary targets for these exports include countries in Africa, the Middle East, and East Asia.

The modernization process

will be conducted in India, leveraging the expertise of both Indian and Russian technical experts. This initiative is part of a broader strategy to retire the T-72 tanks from the Indian Army's service and replace them with more advanced models. The Indian Army currently operates approximately 2,500 T-72 tanks, which have been

the backbone of its armored forces since the 1970s.

There is strong demand for these tanks, particularly from countries in Africa, the Middle East, and Southeast Asia. Nations such as Egypt, Nigeria, Morocco, and Algeria already possess T-72 tanks and may be interested in acquiring modernized ver-

sions to enhance their combat capabilities. In the Middle East, countries like Iraq and Syria could also benefit significantly from these upgrades.

The Heavy Vehicles Factory in Avadi, near Chennai, which has been producing T-72 tanks since the 1980s, will serve as the base for this modernization effort. This facility has a history of producing upgraded T-90 tanks and is well-equipped to handle the modernization of T-72 tanks for export.

While Russia remains a significant player in the global tank market, India's modernization initiative could face challenges due to geopolitical pressures. Western nations have imposed economic sanctions on Russia, which could influence India's arms transfer policies. However, India has previously navigated similar challenges in the energy sector, becoming a major intermediary for Russian oil and gas exports.

The T-72 tank is renowned for its reliability and durability. It is equipped with a 125 mm main gun, an anti-aircraft gun, and a machine gun. The tank can reach speeds of 60 km/h on roads and 35 km/h off-road, and it is capable of fording rivers up to 1.2 meters deep. Notably, during the 2020 tensions with China, India deployed T-72 tanks to the high-altitude region of Ladakh, demonstrating their versatility in challenging terrains.

India has been strategically enhancing its presence in the global arms trade, aiming to compete with established powerhouses such as Russia and China. This ambition has led India to focus on exporting its domestically produced weapons to African militaries, which frequently face budget constraints that make Western-made equipment unaffordable. Building on its initial successes in this sector, India is now poised to expand its influence and establish itself as a significant player in African arms deals.

Unfortunately, there have been no actual weapons sales from India to any African recipient after more than a year.

The T-72 has been a reliable and durable combat vehicle in the Indian Army's inventory, equipped with a 125 mm main gun, an anti-aircraft gun, and a machine gun.

The modernization of ageing T-72M tanks has always been a priority with the Indian Army to make them relevant till at least 2020. Nearly 1700 tanks are in service with the Indian Army, but their maintenance is proving to be problematic.



17 African air forces bought this tiny jet: Here's why they love it

The L-39 is significantly cheaper than other legacy trainers and light attack aircraft. This cost-effectiveness allows African nations to maintain a capable air force without breaking the bank.

From the sands of the north, down to the lush Greenlands of Central Africa, and even the arid savannah of the Southern parts of Africa, one tiny aircraft ruled the skies.

Heavyweight air forces like Egypt and Algeria, as well as smaller militaries like Equatorial Guinea, and Mozambique are proud operators of this aircraft.

The Aero L-39 Albatros, a high-performance jet trainer designed by Aero Vodochody in the Czech Republic, has become a beloved asset for more than 17 African countries. But what makes this jet so special? Let's dive into the reasons behind its widespread popularity across the continent.



Why African Air Forces Love the L-39 Albatros

African air forces appreciate the L-39 Albatros for several reasons:

A Versatile Workhorse

The L-39 Albatros is not just a trainer; it's a multi-role aircraft capable of performing a variety of missions. Initially designed in the 1960s as a successor to the Aero L-29 Delfin, the L-39 made its maiden flight on November 4, 1968. It was the first trainer aircraft in the world to be equipped with a turboprop powerplant, setting a new standard in aviation training.

The L-39 can perform multiple roles, from pilot training to light ground attack and tactical reconnaissance. This versatility makes it a valuable asset for air forces that need to maximize the utility of their aircraft.

Combat-Ready and Cost-Effective

One of the standout features of the L-39 is its dual capability as both a training aircraft and a light-attack jet. This versatility is particularly valuable for African air forces, which often operate on limited budgets. The L-39 can be used to train pilots for larger aircraft like the MiG-29 Fulcrum, Su-27 Flanker, and F-16 Falcon but it can also engage ground targets, making it a practical choice for nations facing various security challenges.

Affordability

The affordability of the L-39 Albatros is a significant factor in its popularity. While the new L-39NG model ranges from \$15 million to \$20 million per unit, older models from the 1970s and 1980s can be acquired for as little as \$400,000 to \$1 million.

The L-39 is significantly cheaper than other legacy trainers and light attack aircraft. This cost-effectiveness allows African nations to maintain a capable air force without breaking the bank. This affordability allows nations with limited defense budgets to acquire and maintain a capable fleet.

Impressive Performance

The L-39 boasts impressive performance metrics:

Rate of climb: 21 m/s

Max speed: 750 km/h at 5,000 m

Max takeoff weight: 4,700 kg

Span: 9.46 m

Length: 12.13 m

Its good maneuverability and excellent visibility from both seats in the cockpit, thanks to its stepped tandem design, make it an ideal aircraft for both training and combat missions. The L-39's performance at subsonic speeds ensures a cost-effective yet capable flight experience.

Proven Track Record

Since its commissioning in 1971, over 2,800 L-39s have been built in various versions, serving with over 30 air forces worldwide. In Africa, countries like Algeria, Angola, Egypt, Nigeria, and Uganda have integrated the L-39 into their fleets, using it for training, tactical reconnaissance, and ground support missions.

Despite being a trainer, the L-39 can engage ground targets effectively. This capability is crucial for African nations dealing with various security threats, including insurgencies and border conflicts.

Modern Upgrades

The L-39's legacy continues with modern upgrades. The L-39NG, an upgraded and modernized version, was launched at the Farnborough Airshow in 2014. Production resumed in 2023, with 34 aircraft on order, ensuring that the L-39 remains a relevant and valuable asset for years to come. This upgrade path allows operators to extend the service life of their fleets while benefiting from improved capabilities.

African Operators of the L-39 Albatros

The L-39 Albatros has found a home in numerous African air forces, including:

- **Algeria (56 L-39ZA/C)**
- **Angola (4 L-39C)**
- **Central African Republic (8 L-39)**
- **Chad (11 L-39)**
- **Republic of the Congo (4 L-39)**
- **Egypt (49 L-39ZO)**
- **Equatorial Guinea (2 L-39C)**
- **Ethiopia (10 L-39C)**
- **Libya (acquired 180 L-39ZOs around 1978)**
- **Mali (10 L-39C)**
- **Mozambique (1 L-39)**
- **Nigeria (24 L-39)**
- **Senegal (4 L-39NG)**
- **Tunisia (12 L-59T Super Albatros)**
- **Uganda (14 L-39 ZA/O)**
- **Ghana (8 L-39NG/ZO)**
- **South Sudan (2 L-39)**

The Aero L-39 Albatros has earned its place in the hearts of African air forces due to its versatility, affordability, and impressive performance. As a training aircraft that can double as a combat jet, it provides a cost-effective solution for nations looking to bolster their air capabilities. With its proven track record and modern upgrades, the L-39 Albatros continues to soar as a beloved choice across the continent.

Meanwhile, Czech aircraft manufacturer Aero Vodochody is targeting the African continent with its new Aero L-39NG aircraft. Aero has been operating in Africa for a long time and has extensive experience there, and hopes to sell the new model L-39NG to African Air forces to continue in the tradition.



STRONG SUPPORT

A detailed image of a Mi-28NE combat helicopter in flight, viewed from a low angle. The helicopter is dark green and black, equipped with various armaments including missiles and rocket launchers. The number '1811' is visible on the side. The background is a clear blue sky.

Mi-28NE

Combat helicopter



ROSOBORONEXPORT
Russian Defence Export

more info at
ROE.RU/ENG/



27 Stromynka str., 107076,
Moscow, Russian Federation

E-mail: roe@roe.ru

www.roe.ru

Rosoboronexport is the sole state company in Russia authorized to export the full range of defense and dual-use products, technologies and services. Rosoboronexport accounts for over 85% of Russia's annual arms sales and maintains military-technical cooperation with over 100 countries worldwide.

How ASELSAN became the top 100 defence companies globally – CEO Ahmet Akyol

ASELSAN aims to help African countries develop their own defence industries and enhance their national security.



with ASELSAN's CEO and President Mr. Ahmet Akyol, who explained the company's current trajectory, strategies, and aspirations.

Here are his response to our questionnaire.

1. Can you provide an overview of ASELSAN's current strategic priorities and how they align with global defence trends?

ASELSAN, which started its operations with the aim of fulfilling Türkiye's military communication needs by national means in 1975, has transformed to a global technology company with its proven technologies in the fields of radar and electronic warfare systems, micro-electronic guidance and electro-optical systems, defence system technologies, and communication and information technologies. Besides defence, ASELSAN also stands out in the transportation, security, automation, energy, and healthcare sectors with its cutting edge systems.

We see that global demand for defence systems continues to increase in 2024 as geopolitical instabilities ramp up. As ASELSAN, we are focusing on research & development activities and continuously work for enriching our product portfolio to address those needs of our friendly and ally countries. We are closely monitoring new trends in the global defence market and the new threats on the battlefield reflecting these changes to our product development processes in all domains.

In addition to developing advanced defence products and systems, we also use our deep engineering know-how and capabilities on modernization projects that attract significant attention

Today begins the first leg of the well-known African Aerospace and Defence Exhibition (AAD), currently being held in the City of Tshwane – South Africa's administrative capital.

The Africa Aerospace and Defence (AAD) is Africa's only aerospace and defence expo that combines both a trade exhibition and an air show.

Besides the selection of jaw-dropping aerial displays by a diverse range of aircraft, prominent defence companies are expected to showcase their cutting-edge products and capabilities.

Among them is Aselsan. We had the opportunity to speak

from different geographies from Latin America to Southeast Asia, in line with the current global trend of modernizing the military.

In framework of our global expansion strategy, we achieved to increase the number of our foreign offices and subsidiaries to 18 and the number of countries that we export to 88. I believe that these numbers will continue to grow in the coming period, which will reinforce our position in the global defence league.

2. How does ASELSAN plan to expand its presence in the African defence market?

We are committed to strengthen our presence in Africa, which is one of the critical markets for ASELSAN. At this point, we give importance to enhancing our collaborations and promoting our customized solutions to potential users in the region. With this aim, we are participating in key defence and aviation events across the continent including AAD, Egypt Airshow, IADE in Tunisia this year, and ShieldAfrica in Ivory Coast, IMDEC in Ghana and EDEX in Egypt in 2025.

In this respect, ASELSAN South Africa have been carrying out marketing and business development activities since 2011, as part of our strategy of growing through global expansion. South Africa's strategic position as a gateway to the African continent, coupled with its size, economic influence, and advanced infrastructure, makes it an ideal base for expanding our presence across the region. We aim to address the growing security and defence needs of the countries in the region with our technological solutions, while benefitting to our local partners we collaborate with.

3. What are the key factors that have contributed to ASELSAN's success in becoming one of the top 100 defence companies globally?

In this year, ASELSAN has made a significant leap in the annual "TOP 100 Defence Companies List" of Defense News climbing to 42nd position, up from 47th in the last year's list. This achievement underscores ASELSAN's strong commitment to global expansion strategy and innovation in the defence sector. The company's remarkable progress is attributed to its development of cutting-edge solutions and export performance. ASELSAN, maintained its solid growth and recorded an extraordinary financial performance for the first half of 2024. Accord-

ing to first half financials, revenues reached 35.7 billion TL (over 1 billion USD) with an 8% growth rate, while net profit grew by 133%, reaching 3.6 billion TL. The new contracts worth 2.6 billion USD brought total backlog of the company to 12.3 billion USD.

We have placed innovation at the center of every single piece of our work as we develop advanced technological solutions in all military domains ranging from deep ocean to the space. Our portfolio of over 500 products, most of which are field-proven, is constantly adapted to changing technology requirements of our customers worldwide in line with their feedbacks. However, the level of success we have reached is never enough for us. As part of our strategic vision that we name AselsaneXt 2030, we have set a goal to be among the top 30 companies in the world by 2030. As we work toward this goal, our core vision is to:

Develop the best-in class products, Create game-changing technologies, Grow through global expansion.

4. Can you highlight some of ASELSAN's most innovative products and technologies currently in development?

Since its establishment in 1975, ASELSAN has developed game-changing systems and products across various fields, recognized as the best in their domains. Most of our systems have proven themselves in the field and are continuously improved through daily feedback from our users, especially from our armed forces. Additionally, ASELSAN is focused on developing new products which will support our global growth and respond to emerging needs that have become increasingly important with the new challenges in the battlefield.

Unmanned aerial vehicles (UAVs), one of the most notable outputs of the Turkish defence industry in recent years, have attracted considerable attention in the international defence sector. ASELSAN plays a major role in enhancing the capabilities of these systems with the payloads it provides for UAVs. Prominent UAV payloads from ASELSAN include ASELFLIR 500/600 electro-optical/infrared (EO/IR) camera systems; guided munitions like TOLUN and TOLUN IIR; guidance kits such as GÖZDE, LGK, KGK, and HGK; electronic warfare pods;

signal intelligence and jamming solutions; radars; and communication systems. With its strong presence in this area, ASELSAN is receiving significant interest abroad and is signing international sales contracts.

Our success and ambition in the fields of electronic warfare, radar, and air defence have recently gained the support of our government, leading to the emergence of the “Steel Dome” concept, with ASELSAN at its core.

The focus of the Steel Dome will be on developing infrastructures that will ensure the real-time and integrated operation of the systems involved in air defence. ASELSAN will also design the system-of-systems architecture that will enable the fully integrated operation of command control systems, sensor systems, weapon systems, and communication systems together.

In addition, ASELSAN is also making a name for itself with its work in satellite and space technologies. ASELSAN developed all the communication payloads for the TÜRKSAT-6A project, Türkiye’s first indigenous communication satellite which was successfully launched on July 9. We are also developing national and original high-technology products for the GÖKTÜRK series satellites, which aim to meet the high-resolution imaging needs of our country in both civil and military domains.

5. How does ASELSAN approach research and development to stay ahead in the rapidly evolving defence technology landscape?

We are one of the leading companies in Türkiye in terms of R&D investment, number of R&D personnel, patents, and R&D projects. As Türkiye’s R&D leader, we have over 6,700 employees at our nine R&D centers. We put special emphasis on R&D activities and technology acquisition since the foundation of our company.

Each year, we allocate a considerable part of financial and human resources in order to carry out R&D projects containing unique product designs resulting from the evaluation of innovative ideas. Acting on this vision, ASELSAN broke a historical record on external R&D in 2023.

At ASELSAN, in line with our mission to be a leader, we implement innovative management approaches that can compete with the world’s best companies in the field of R&D. We put R&D and innovation at the center of all busi-

ness process activities from manufacturing to marketing, from supply to management and we see innovation as the key to increasing our competitiveness. Each year we allocate a significant amount of financial and human resources in order to carry out R&D projects containing unique product designs resulting from the evaluation of innovative ideas.

6. What products is Aselsan exhibiting at the African Aerospace and Defence Exhibition?

As ASELSAN, we prominently feature our border security systems, counter-drone solutions, critical facility security systems, avionics modernization solutions, communication systems, as well as our unmanned aerial vehicle (UAV) payloads, guided munitions, and guidance kits at AAD.

We expect our next-generation electro-optical reconnaissance, surveillance, and targeting system ASELFLIR-500, which has demonstrated outstanding performance in unmanned aerial vehicles and proven itself in the field, to be at the spotlight during the fair. We are also presenting our laser-guided kit GÖZDE which enables high firing accuracy and minimized collateral damage along with our guided munition TOLUN at our stand. Launched from an air platform via a Multiple Carriage Rack (SADAK), TOLUN can be used against both hard and soft ground targets.

İHTAR, designed to counter mini and micro UAVs, a system that can detect, classify, and track these threats and neutralize them using various effectors, including jamming and physical destruction systems is also one of our highlights. In the field of electronic warfare, ILGAR and VURAL radar electronic support system solutions are also among the products featured at our stand.

In addition, we are showcasing MİDAS, a fiber-optic-based, highly sensitive detection system that protects important locations such as critical facilities, national borders, oil/gas pipelines, and energy transmission lines from violations, theft, terrorism, infiltration, sabotage, and espionage activities at AAD. Our border security systems, ACAR-K ground surveillance radar, DORUK-120 handheld electro-optical system, KANGAL jammer subsystem, and YENER modern mine detection system are highlighted at our stand.

Additionally, our vehicle, backpack, airborne and naval radios, interrogators and transponders are showcased as part of our communication solutions.

7. How does ASELSAN approach partnerships with local companies in international markets?

As a global defence company, we are paying particular attention to expand our global footprint through international collaborations and our subsidiaries and offices we establish worldwide. We are operating in 18 countries today with our offices and subsidiaries which contribute significantly to strengthen our local partnerships. Our office in South Africa is a remarkable example in that regard by extending ASELSAN's solutions and capabilities across South Africa and its neighboring countries.

In addition to investments in defence and security in different geographies through our subsidiaries and offices, technology transfer and local capacity development in these areas are also of great importance for us. ASELSAN, considering the needs in its target markets, aims not only to supply products and systems but also to contribute to sustainable development through training, technical support, and local partnerships, ensuring that our innovations contribute to local development and security.

In addition to our technological advancements, we place great importance on social impact and community engagement in the markets we operate. Through these efforts, ASELSAN is not only enhancing regional defence capabilities but also demonstrating a strong commitment to social responsibility and technological collaboration with local partners.

8. What are the unique defence needs and challenges faced by African countries, and how can ASELSAN address them?

The increasing security threats in Africa and the need to provide advanced solutions to counter these threats offer ASELSAN the opportunity to introduce its wide range of products to customers in the region, including radar systems, electronic warfare solutions, communication systems, electro-optical systems, and unmanned aerial vehicles. With these products and solutions, ASELSAN aims to help African countries develop their own defence industries and enhance their national security.

Our sales to the African continent are mainly in the fields of border security, air defence, air platforms payloads and jammer systems.

The number of countries we supply our products in Africa has now reached 21 and our sales to the African market has gained considerable momentum in recent years. ASELSAN aims to achieve its long-term goals in the region and contribute to the security of African countries by providing customized solutions for Africa's defence and security needs.

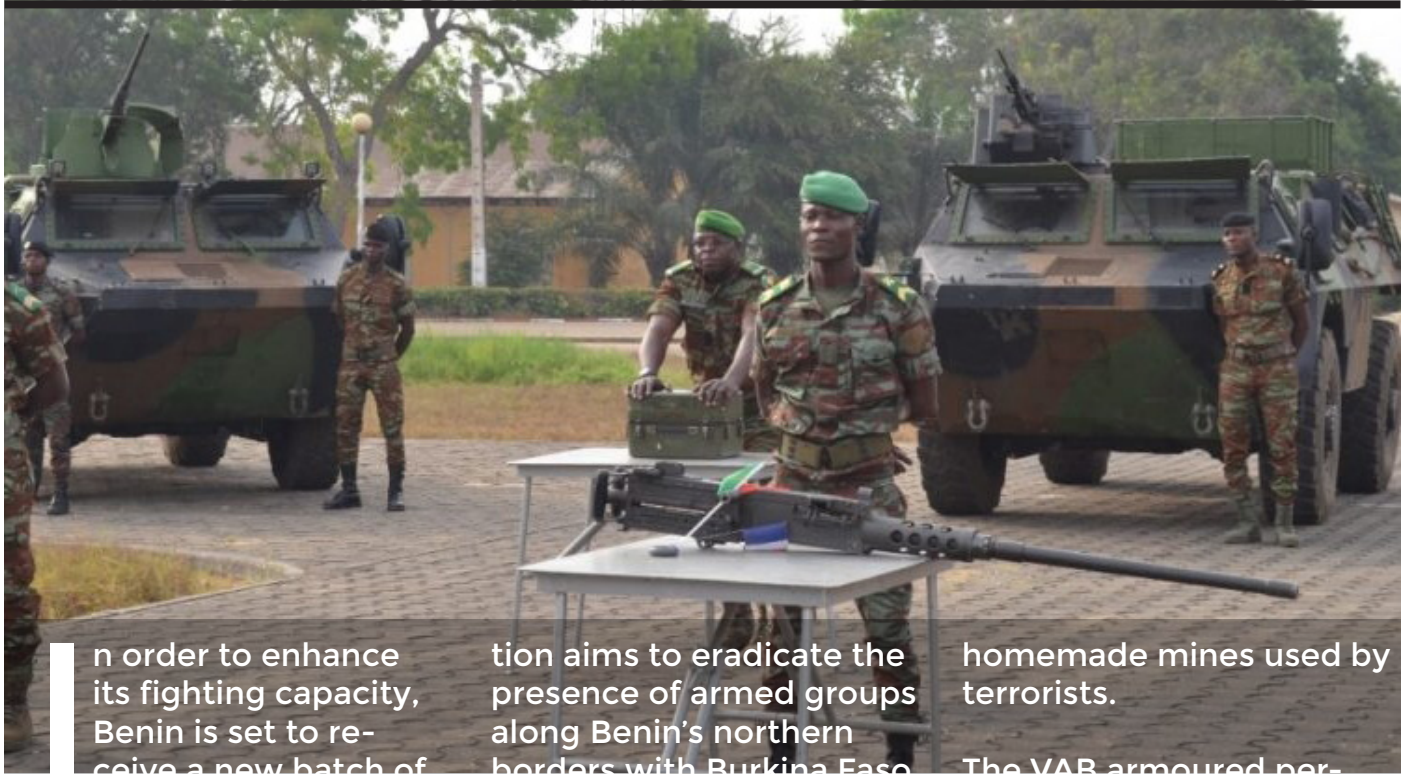
9. What are the key areas of growth and innovation that ASELSAN is focusing on for the future?

As a global technology company, we are making considerable investment for incorporating the new technologies in our operations. We have set a strategic roadmap for our technological improvement. Just to name a few of the future technologies we invest on, I can mention quantum computing. We are making long-term investments in quantum computing with the laboratory we have built in the fields of quantum communication, crypto side, quantum lidar and quantum radar. The second area we invest in is HPM, high power microwave, which is a challenging technology. ASELSAN also has a gallium nitride chip design and production facility for electronic warfare and radars. Last but not least, we are investing in high power lasers and laser sources. Our 2030 transformation plan also includes digital transformation, management transformation and improvement of mass production in all domains.

As Türkiye's leading defence company and a global technology company, we will be closely monitoring the changing scene, new trends and threats in the global warfare and on the battlefield in the coming years. We will adopt our systems and products to these new trends and protect our leading role in the defence industry both in Türkiye and globally with our state-of-the-art products and solutions.

Of course the backbone of all our success is our devoted and skilled workforce. To realize our future plans, we will continue to invest in our human resources by promoting innovative thinking, backed by the opportunities that we offer our employees to learn and experiment every day.

Benin Army acquiring armoured vehicles from France and EU



In order to enhance its fighting capacity, Benin is set to receive a new batch of armoured vehicles from France and the European Union.

Over the next few weeks, the French armed forces will deliver 15 armoured personnel carriers (APCs) to the Beninese high command, led by General Fructueux Gbaguidi. These VAB-type vehicles, drawn from French army stocks, follow an initial delivery of 26 VABs to Cotonou in 2023. In addition to these APCs, Paris has previously provided pick-up trucks to the Forces Armées Béninoises (FAB) and three Puma transport helicopters for the air force.

These donations come at a crucial time as Beninese units involved in Operation Mirador are increasingly deployed. The opera-

tion aims to eradicate the presence of armed groups along Benin's northern borders with Burkina Faso and Niger.

For a while now, Benin's government has been taking steps to stop incursions after several months of terrorist attacks in the northwest and northeast of the country. The authorities continue to reassure the people of Benin: "The Beninese army is sufficiently equipped to ward off all the scourges that can disturb the tranquillity of the Beninese," Alain Fortunet Nouatin, Beninese Minister of Defense said.

The armoured vehicles are equipped with support weapons and night vision equipment to provide secure transport for troops in theatres and protect them against weapons and their

homemade mines used by terrorists.

The VAB armoured personnel carrier was developed by Renault to meet a French Army requirement. The base model is the 4x4 VAB VTT armoured personnel carrier, which can carry an infantry squad of 8-10 fully-equipped troops in the relatively spacious armoured hull. Vehicle armour protects the crew and dismounts from 7.62 mm rounds, artillery shell splinters and anti-personnel mines. This armoured personnel carrier can carry up to 2 000 kg of payload in place of the troops. Most VABs carry at least a 7.62 mm machine gun, although 12.7 mm heavy machine guns and 20 mm cannons are fitted on some of these armoured personnel carriers. Ballistic protection may be provided by various types of turrets.



TACTICAL ENGAGEMENT SIMULATION SYSTEMS

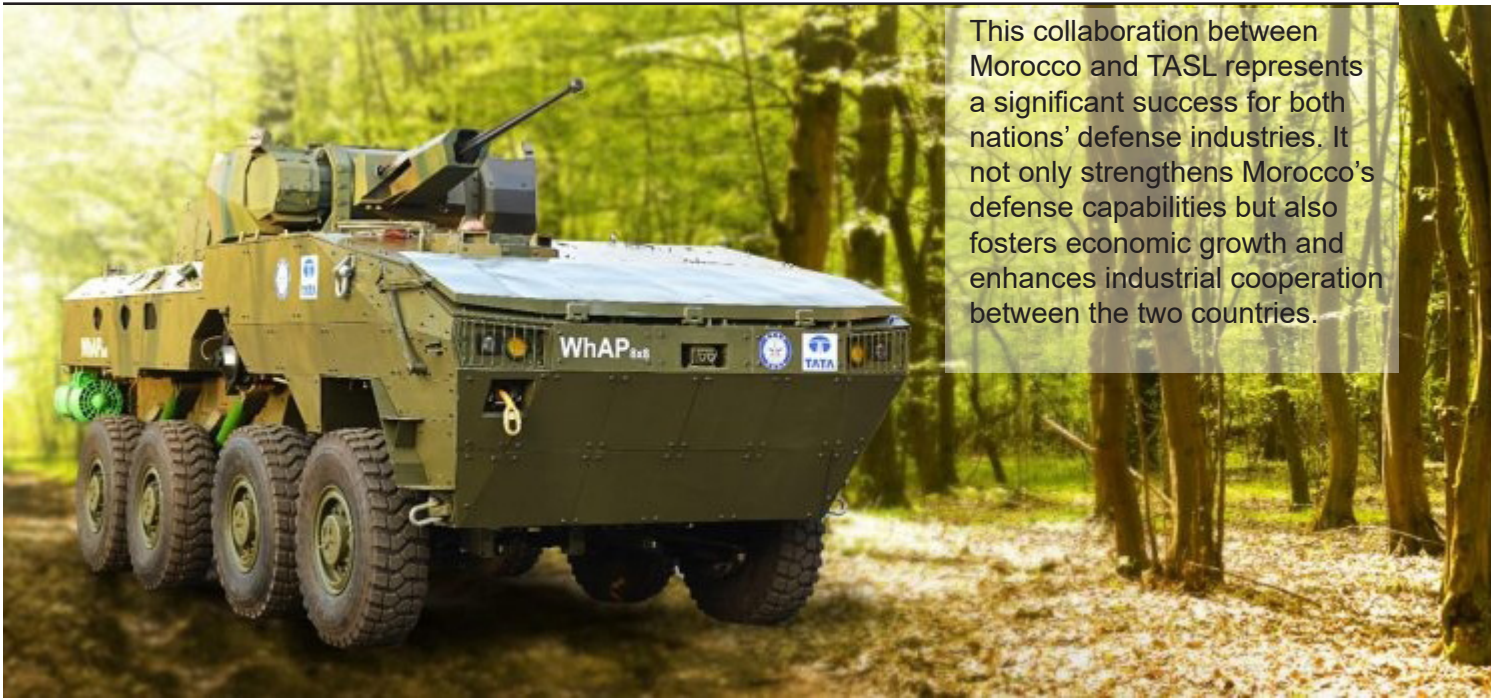
TRAINING OF THE FUTURE



Battle-tested, full-cycle manufacturer specializing in Force-On-Force simulators that allow the military to conduct training in conditions as close as possible to actual combat.

SKIFTECH equipment can be installed on standard weapons or armored vehicles. The software collects statistics on the exercises for each soldier and for platoons in general, enabling further analysis and objective assessment of their effectiveness. The dry-fire mode allows for endless repetition of training, making it cost-effective.

SKIFTECH



Morocco launches domestic production of Indian WhAP 8x8 armored combat vehicle

DAREK LIAM

Morocco has partnered with Tata Advanced Systems Limited (TASL) to domestically produce the WhAP 8x8 armored combat vehicles. This collaboration marks a major milestone in Morocco's efforts to enhance its defense manufacturing capabilities and reduce dependency on foreign suppliers.

The production facility, which will be located in Casablanca's industrial zone, is set to begin operations within a year. The first Kestrel/WhAP 8x8 infantry fighting vehicles (IFVs) are expected to roll off the production line in 18 months. This initiative is part of Morocco's broader strategy to expand its defense manufacturing capabilities and is seen as a critical step in boosting South-South cooperation and enhancing the country's industrial ecosystem.

Initially, the factory is expected to produce 100 Kestrel/WhAP 8x8 vehicles annually. The Royal Armed Forces (FAR) will be the primary recipient of these armored vehicles, with plans for future exports to other African nations. The project is set to be completed within 36 months, starting with a local integration rate of 35%, which will increase to 50% as the factory scales up operations. This venture is expected to generate 90 direct jobs and 250 indirect jobs, contributing significantly to local economic growth.

The partnership includes financial, fiscal, and customs incentives, supported by multiple Moroccan government agencies, including the National Defense, Interior, Finance, and Industry ministries. These incentives are designed to ensure the long-term success of the venture and encourage

This collaboration between Morocco and TASL represents a significant success for both nations' defense industries. It not only strengthens Morocco's defense capabilities but also fosters economic growth and enhances industrial cooperation between the two countries.

further investment in Morocco's defense sector.

The WhAP 8x8 Armored Combat Vehicle Tata Advanced Systems' flagship product, WhAP 8x8 (Wheeled Armoured Platform) is India's First Amphibious Infantry Combat Vehicle (Wheeled), designed for optimized survivability, all-terrain performance and increased lethality.

Tata's WhAP (Wheeled Armoured Platform), also known as the Kestrel, is an 8x8 infantry fighting vehicle developed in partnership with India's Defence Research and Development Organisation (DRDO). The vehicle is designed for a variety of combat missions, including troop transport and reconnaissance, with a focus on protection, mobility, and firepower.

Nigerian Army determined to adopt “Smart Soldier” concept

EKENE LIONEL

The Nigerian Army says it is determined to leverage on advanced technologies to improve personnel operations and effectiveness.

Chief of Army Staff, Lieutenant General Taoreed Lagbaja stated this at a seminar on “Digital Transformation and Smart Soldier Concept” organised by the Army Headquarters Department of Army Transformation and Innovation, held at the headquarters of 3 Division in Jos, Plateau State.

Speaking on behalf of the Army chief, the General Officer Commanding (GOC) of 3 Division, and Commander of Operation Safe Haven, Major General Abudulsalam Abubakar, revealed that the concept of the “smart soldier” is at the heart of the desired transformation of the Nigerian Army, hence the need for the Nigerian Army to stay ahead of technological trends, equip soldiers with the knowledge and tools including artificial intelligence, smart devices and wearable technology, to improve communication, situational awareness, and decision-making in combat scenarios that allow them to operate effectively in a digitized environment.

“The seminar is thus critical, considering the challenges bedeviling our dear nation, which requires focused leadership, operational effectiveness, and sound administration, which are the pillars of my command philosophy. It must, however, be noted that transformation is not merely adopting new technologies; rather, it is about fostering a culture of innovation and encouraging adaptability in a rapidly changing operating environment. The success of this transformation will then largely depend on our ability to seamlessly integrate new technologies with the human elements to ensure that soldiers remain agile, informed, and prepared,” he said.

Technological advancement is shaping the way things are done in every sphere of human endeavor, in Modern warfare cutting-edge technology can make the difference between winning and losing.

It is against this backdrop that the Nigerian Army in its bid to keep up with modern trends organized the seminar for middle and junior officers.



Deputy Head of the Army Department of transformation Major General Adetoba said the Nigerian army aims to leverage Modern technology for effective operations.

Nigerian Army Smart Soldier Concept

Following the lessons learned while fighting Boko Haram, the Nigerian Army began a series of technology-driven initiative to provide troopers with sophisticated equipment to defeat the enemy.

Realizing that an incorrectly structured army, utilizing an ineffective and outdated doctrine and equipment, gives any threat-force an advantage whilst placing itself at a disadvantage, the Nigerian Army Chief of Army Staff; General Tukur Buratai unveiled the new Nigerian Army smart uniform which can send signals to the Command and Control network when an individual soldier is in danger.

Also, in order to provide better situational awareness, drones are being tethered to squad-sized troops to enables rapid battlefield decision making and adds to the initiative of junior commanders.

For enhanced lethality, the FB Beryl rifle chambered on the 7.63 x 39mm is being inducted. An innovative auto-aim rifle technology is also being developed by Nigerian Army engineers. Improved ballistic armour protection is also given to the Nigeria soldiers on the frontlines.

Milkor unveils all-new armoured vehicles at AAD 2024



Sarah Lesedi

Milkor has made a significant impact at the Africa Aerospace and Defence (AAD) 2024 exhibition by unveiling its latest advancements in armoured vehicles, alongside new vessel models and upgraded grenade launchers. The highlight of Milkor’s showcase includes the debut of the Vanguard MRAP, the 6×6 Frontier, and the BushCat APC.

Vanguard MRAP

The Vanguard MRAP (Mine-Resistant Ambush Protected) vehicle is a standout at AAD 2024. This 16-ton vehicle is engineered for high-end combat and cross-domain operations, offering unparalleled protection and strength. It meets NATO STANAG 4A and 4B standards, providing protection against 10 kg landmines, and boasts Level 3 ballistic protection for its crew of up to 10 members.

Equipped with independent suspension and a 450-horsepower engine, the Vanguard MRAP can reach speeds of up to 100 km/h on road. Its V-shaped hull design enhances survivability in combat situations, making it ideal for UN peace-



keeping missions and European defence forces. Variants include troop deployment, command vehicle, border surveillance, field ambulance, and anti-riot capabilities.

6×6 Frontier

Milkor has also introduced the 6×6 Frontier military vehicle, built on the reliable Toyota Land Cruiser chassis. This vehicle is designed to meet the needs of markets in Africa, Latin America, and Asia, offering a powerful 4.5-liter V8 engine and military-grade armour. The 6×6 Frontier is versatile, with variants including troop carrier, Long Range Patrol Vehicle, Rapid Reaction Vehicle, and fire fighter. It has a GVM of 8,700 kg and can reach speeds of up to 120 km/h, with armour protection up to B6 level.

4×4 Frontier

A smaller, lighter 4×4 version of the Frontier is also available, with a GVM of 5,700 kg, suitable for border surveillance and utility tasks. This model comes in three versions, including a stripped-down extra lightweight VTT version.

BushCat APC

Another notable addition to Milkor's Land Systems is the BushCat APC (Armoured Personnel Carrier). This 13.5-ton vehicle offers a balance between high-level protection and operational efficiency, making it a cost-effective solution for military and peacekeeping operations. The BushCat is designed for rugged terrain and infantry transport, providing robust protection for its occupants. It meets STANAG 3A and 3B blast protection standards and offers Level 2 ballistic protection. The vehicle can accommodate both manned and unmanned turrets.

Milkor's latest offerings at AAD 2024 demonstrate the company's commitment to providing advanced, reliable, and versatile military vehicles for various operational needs. These new models are set to enhance the capabilities of armed forces and peacekeeping missions worldwide.

Earlier on, Milkor unveiled a new 8×8 armored vehicle at the IDEX 2019 held in Abu Dhabi. Though still at the Computer Assisted Design (CAD) stage, the new 8×8 armored vehicle design is focused on the balance between the drivetrain and independent suspension.



A police version of the Bushcat



Border patrol version of the 4 x 4 Frontier agile vehicle



SH15

SUPERIOR HOWITZER OF CHINA

SH15 155 mm self-propelled gun howitzer adopts plenty of innovative designs which endows the howitzer with advantages of high accuracy, rapid maneuverability, strong firepower, quick response, and high reliability, representing the development trend of 155 mm artillery.

SH15 combat units generally operate as battalions or batteries. The weapon system possesses function modules including reconnaissance, command control, strike, assessment, and support, leading to a closed-loop combat unit to carry out long-range fire suppression, precise striking and fire support. It can be deployed in heavy mechanized troops, artillery, coastal defense troops.

Visit Us at Hall3-XD12



www.norinco.com

Denel unveils RG41 GT7 105mm self-propelled howitzer at AAD 2024



This combination referred to as the RG41 GT7, is expected to offer fire support capabilities as a self-propelled artillery system for mechanized or motorized infantry units.

At the Africa Aerospace and Defence (AAD) 2024 event, Denel made a significant impact by unveiling the integration of its RG41 eight-wheeled combat vehicle with a modified version of the G7 105 mm gun. This new combination, potentially named the RG41 GT7, is designed to provide robust fire support capabilities as a self-propelled artillery system for mechanized or motorized infantry units.

The RG41 platform's origins trace back to the early stages of Project Hoefyster, where Denel proposed it as an alternative to the Finnish Patria eight-wheeled platform, which eventually became the South African Army's Badger 8x8. According to Business Development Manager Isaac Karelse, the RG41 was designed and tested extensively, even undergoing successful summer trials in the UAE. However, shifting customer requirements led to

the adoption of another Denel vehicle, the RG35.

As delays plagued the Patria/Badger system, Denel suggested the RG41 as a potential "drop-in" solution for Project Hoefyster, envisioning it as a future requirement. Despite the setbacks caused by the COVID-19 pandemic, Denel continued to develop the RG41, fitting it with remotely-operated turrets, including the Tactical Remote Turret (TRT) tested with 20 mm and 30 mm cannon variants.

The idea to mount a 105 mm gun on the RG41 platform emerged during shooting trials with the G6 155 mm self-propelled howitzer and the truck-mounted T5 system. The 105 mm gun, essentially a vehicle-mounted version of the G7 105 mm LEO towed howitzer, required technical modifications, resulting in the Denel GT7 gun.

Sarah Lesedi

The RG41 is a new generation wheeled armored combat vehicle and a cost-effective solution for clients who require a combination of high mobility, protection and fire power.

The first version of the RG 41 was unveiled in 2010 and has built up a solid reputation in different environments across the world. Since then Denel Vehicle Systems has developed a range of outstanding variants that are suitable for the demands of modern warfare.

Denel then developed the T7/105 mm turret, weighing 3,750 kg. While the turret is currently manned during testing and trials, there are plans to eventually make it unmanned. The configuration showcased at AAD 2024 includes a vehicle commander, driver, gunner, and eight soldiers, comprising seven troops and a section commander.

The T7/G7 combination, still in the prototype phase, promises to be a highly mobile self-propelled artillery system, enhancing the firepower of mechanized battalions. The G7 gun boasts a range of 30 km, with ammunition lethality surpassing standard 155 mm high explosive shells. Developed by Rheinmetall Denel Munition (RDM), the ammunition includes high explosive, high explosive pre-formed fragmentation, smoke, illuminating, and other rounds. The standard projectile range is 24 km with boat tail and 30 km with base bleed, while the direct fire range spans from 500 to 2,000 meters.

Twiga unveils Nkwe 4x4 armoured vehicle at AAD 2024

Sarah Lesedi

Twiga Services & Logistics has introduced its latest innovation, the Nkwe 4x4 armoured vehicle, at the Africa Aerospace and Defence (AAD) 2024 exhibition. The Nkwe, meaning “Leopard,” was showcased alongside Twiga’s larger Nyati armoured personnel carrier, highlighting the company’s expanding range of military vehicles.

Advanced Protection and Design

Developed in South Africa between 2022 and 2024, the Nkwe is a mine-resistant vehicle that has been qualified this year. It offers NATO STANAG Level 2 ballistic protection, capable of stopping up to 7.62x39 mm armour-piercing rounds, and Level 1 protection for the engine bay against grenades and anti-personnel mines. Additionally, it provides Level 3a mine protection, withstanding blasts of up to 8 kg under any wheel and the centre of the hull.

Powerful Performance

The Nkwe is powered by a four-cylinder turbocharged Mercedes Benz 4.7-litre diesel engine, delivering 163 kW of power and 810 Nm of torque. This engine is paired with an eight-speed manual-automatic transmission, enabling a top speed of 100 km/h. Designed for tough off-road conditions, the vehicle features a robust suspension system, run-flat inserts, a central tyre inflation system, and anti-lock brakes.

Twiga offers the Nkwe in multiple configurations, including an armoured personnel carrier, weapon platform, and battlefield ambulance. It can also be equipped with a turret, making it suitable for motorised infantry, counter-insurgency, special forces, and urban operations. The vehicle has a gross vehicle mass (GVM) of 9,500 kg and can accommodate eight passengers plus two crew members. It is available in both right and left-hand drive versions and includes air conditioning for enhanced com-



Twiga Nkwe 4x4 armoured vehicle (image credit: Guy Martin)

fort. The Nkwe also features ten gun ports and an optional turret for remote or manual weapon stations.

According to Damian de Lange, CEO of Twiga Services & Logistics, the Nkwe has been designed to facilitate the easy transfer of technology for local manufacturing. The vehicle also introduces a new driveline upgrade for the Mamba and Nyoka armoured vehicles, ensuring these legacy models remain operational with modern components for the next two decades.

Twiga has established a production line in Uganda for assembling these vehicles in collaboration with its sister company, Impala Services. The company previously launched the Nyati armoured personnel carrier in 2021, which is manufactured in Uganda as the Chui (Leopard) by the Armoured Vehicle Manufacturing and Assembly Facility.

LAND | SEA | AIR

Mwari. Legendary African Warrior



The Mwari is a legendary all-seeing and all-knowing deity as described in the Shona language. Today the legend lives on in the multi-mission African-designed and manufactured aircraft. Equipped with the latest technology there is little that the Mwari cannot see or hear well above the clouds. Combining the best features of a reconnaissance aircraft with those of an attack helicopter, Mwari can stand watch for hours on-station and successfully interdict any threat with its precision weapons systems as guided by its onboard real-time, real-life actionable intelligence. It's the ultimate warfighter and game-changer for African Air Forces.



PARAMOUNT

PARAMOUNTGROUP.COM



Embraer hopes to sell its twinjet C-390 airlifter for South Africa's Hercules replacement need, as well as across Africa. (Source: Embraer Defense & Security)

South Africa expresses interest in Embraer C-390 after evaluation

SARAH LESEDI

South Africa's interest in modernizing its military transport capabilities has led to a significant evaluation of the Embraer C-390 Millennium. This tactical transport aircraft, developed by the Brazilian aerospace company Embraer, has garnered attention from the South African National Defence Force (SANDF) and the nation's defence ministry.

The recent Africa Aerospace and Defence show at Waterkloof air base near Pretoria provided a platform for Embraer to showcase the C-390's capabilities, sparking discussions about its potential role in South Africa's future airlift operations.

From 18-22 September, Embraer exhibited the C-390 Millennium at the Africa Aerospace and Defence show. This event was a pivotal moment for the Brazilian company, as it presented the aircraft's capabilities to key South African officials, including President Matamela Cyril Ramaphosa and Defence Minister Angie Motshekga. The SANDF had the opportunity to

evaluate the aircraft, which Embraer believes could meet the nation's strategic airlift needs.

"We appreciate the wide range of capabilities and technology that we've experienced," the nation's defence ministry says. "SANDF has shown interest in the C-390 Millennium, as it advances in the necessary steps for the selection of the much-needed strategic lift capability."

Bosco da Costa Junior, CEO of Embraer Defense & Security, expressed confidence in the C-390's suitability for the SANDF. He highlighted the aircraft's versatility, range, and speed, emphasizing its potential to replace South Africa's aging fleet of Lockheed Martin C-130 Hercules aircraft. The C-390's ability to perform various roles, including medical evacuation, cargo and troop transport, and intelligence, surveillance, and reconnaissance, makes it a strategically important asset.

"Embraer had the pleasure of presenting all the capabilities of the C-390 Millennium to the

president of South Africa, Matamela Cyril Ramaphosa, and the minister of defence, Angie Motshekga," the company says. "This new-generation aircraft also attracted great interest from the South African National Defence Force (SANDF), which had the opportunity to evaluate it," it adds.

"Embraer recognises the professionalism and dedication of the SANDF during the ongoing selection process to renew its fleet of legacy transport aircraft," says Embraer Defense & Security chief executive Bosco da Costa Junior. "The C-390 is a strategically important aircraft that offers outstanding versatility, range, and speed. We are confident that it is well suited to meet the needs of the SANDF as well as other government authorities," he adds.

Likewise, in November 2023, Embraer demonstrated the C-390 Millennium to the South African Air Force (SAAF) and other government departments at Air Force Base Waterkloof. The demonstration was attended by senior Department of Defence officials, including Defence Minister Thandi Modise, SANDF Chief General Rudzani Maphwanya, and SAAF Chief Lieutenant General Wiseman Mbambo. This visit followed an April 2023 trip to Brazil by SAAF officials to discuss the aircraft's potential.

The SANDF's interest in the C-390 is driven by the need to replace or augment its aging C-130BZ Hercules fleet. These aircraft have faced maintenance and availability issues, prompting the SAAF to charter aircraft for operations in the Democratic Republic of Congo and Mozambique. The C-130BZs are also used for domestic and regional humanitarian missions, such as delivering relief supplies and medical equipment to areas affected by natural disasters and conflicts.



Tunisian Air Force New C-208B Grand Caravan EX Aircraft

Tunisia bolsters ISR capabilities with new C-208B Grand Caravan EX Aircraft

Derek Liam

The Tunisian Air Force has significantly enhanced its intelligence, surveillance, and reconnaissance (ISR) capabilities with the recent acquisition of four Textron Aviation C-208B Grand Caravan EX aircraft from the United States. This strategic addition aims to strengthen Tunisia’s operational readiness in addressing both national and regional security challenges.

The official handover ceremony took place on September 9 at Al-Auaina Air Base, marking a

milestone in US-Tunisian defense cooperation. The event was attended by prominent figures, including Tunisian Minister of Defence Khaled Sehili, US Ambassador Joey Hood, Chief of Staff of the Tunisian Air Force General Mohamed Hajem, and Brigadier General Ricky Mills, Assistant Deputy Under Secretary of the US Air Force.

Minister Sehili highlighted the aircraft’s pivotal role in enhancing the air force’s ISR capabilities. “These aircraft will support the operational ca-

pabilities of the air force in the field of information, surveillance, and reconnaissance thanks to their characteristics, accuracy in carrying out tasks, and speed in passing data, which will help confront terrorism and transnational organized crime and serve security and peace at the national and regional levels,” he stated.

The C-208B Grand Caravan EX aircraft are specifically configured for ISR missions, equipped with advanced electro-optical gimbals, night vision capabilities, and other sophisticated surveillance equipment. Although unarmed, these aircraft are designed to provide critical real-time data and intelligence, enhancing Tunisia’s ability to monitor and respond to various threats.

Comprehensive Support Package

The \$54 million deal includes not only the aircraft but also a comprehensive support package encompassing spare parts, flight training, technical drawings, logistics support, and ground support equipment. This ensures that the Tunisian Air Force can maintain and operate the aircraft effectively.

US-Tunisia Defense Cooperation

This acquisition is part of a broader US initiative to equip multiple African nations with ISR capabilities through the Foreign Military Sales (FMS) program. Tunisia joins other African countries such as Cameroon, Chad, Kenya, Mali, Mauritania, Niger, Nigeria, Rwanda, and Uganda in benefiting from this program.

Last year, the United States approved the delivery of two more Textron 208 Grand Caravan

EX aircraft to be used for special missions over North Africa, making a total of four airframes.

“The fleet will aid the Tunisian air force in intelligence, surveillance and reconnaissance operations in the country,” says Bob Gibbs, vice-president, Special Mission Sales for Textron Aviation.

ATI Engineering Services equipped the aircraft with an electro-optical/infrared sensor, tactical radio, operator console, video data link and night-vision compatible lighting to meet requirements.

D2 Government Solutions Maintenance team is provided training to Tunisian Air Force mechanics and technicians on the Cessna 208 in the United States.

Report of Tunisia acquiring the unarmed special mission aircraft first came to the fore in 2019, the acquisition falls under a US Department of Defence Section 333 capacity building initiative in support of US Africom.

The first two special mission Textron C-208B Grand Caravan EX aircraft (N684EX and N692EX) arrived Tunisia on 24th of July via Vatry in France.

The delivery of these aircraft is expected to significantly bolster Tunisia’s ISR capabilities, providing a critical tool in the fight against terrorism and organized crime. As other African nations also enhance their surveillance fleets, regional security and cooperation are likely to see substantial improvements.

The basis for the C-208EX, the C-208B Grand Caravan variant is 1.2 m (4 feet) longer than the standard model and is powered by a Pratt & Whitney PT6A-114A engine.

The EX is the third variant of the all-metal, high-wing 208 Caravan introduced in 1984 and is the second iteration of the Grand Caravan, a stretched version of the 208.



South African military loses maritime patrol capabilities as C-47 retires



The loss of maritime patrol capabilities is symptomatic of broader issues within the South African defence forces.

Darek Liam

The South African Air Force (SAAF) has officially retired its fleet of Douglas C-47 Dakota aircraft, marking the end of an era that spanned over eight decades. This decision has left South Africa without any maritime patrol capabilities, a significant gap in the nation's defence infrastructure.

The C-47 Dakota, affectionately known as the “workhorse of the air,” has been a cornerstone of South African aviation since its introduction in 1943. These aircraft have been instrumental in various roles, including transport, logistical support, maritime surveillance, and electronic intelligence gathering. The SAAF once boasted the largest fleet of Dakotas globally, with 47 of these resilient planes serving the nation. The retirement of the C-47 and

its turboprop successor, the C-47TP, comes after years of maintenance challenges and financial constraints. Armscor, South Africa's state-owned defence company, has struggled to secure maintenance contracts for these aging aircraft, leading to their grounding. In a recent Parliamentary session, Democratic Alliance (DA) spokesman Chris Hattingh questioned Defence and Military Veterans Minister Angie Motshekga about the steps being taken to replace the C-47TP aircraft. The response highlighted the slim to non-existent possibility of acquiring replacement airframes.

The South African National Defence Force (SANDF) has several projects aimed at addressing maritime and light air transport capabilities, including Project SaucePan and Project Pelican. However, these

initiatives have been stalled due to a lack of funding. Previous projects, such as Project Saucepan, Metsi, and Kiepie, also failed to materialize, leaving the SAAF without a viable replacement for the C-47TPs.

The former Chief Whip and DA Caucus Leader in the North West provincial legislature posed his question around the possibility of maritime guerrilla operations and piracy, particularly off Mozambique, as well as foreign fishing fleets poaching South African maritime resources against the background of a “throttled” SA Navy (SAN).

He was told Lieutenant General Wiseman Mbambo's service had “generated requirements operational capability for the second time in the last 20 years to address the maritime capability with no success”.

Sandock Austral Shipyards Partners with Fincantieri on Afrika Class OPV



Sarah Lesedi

Sandock Austral Shipyards (SAS) has announced a strategic partnership with Italian shipbuilding giant Fincantieri and its Canadian subsidiary, Vard Marine, to develop the Afrika class offshore patrol vessel (Vard 7 055). This collaboration aims to address the unique maritime challenges faced by African nations.

The Afrika class offshore patrol vessel is specifically designed to meet the diverse needs of African maritime operations. Based on the Vard 7 055 design, the vessel is 53 meters long and combines affordability, ease of maintenance, and operational flexibility. It is equipped with advanced navigation systems, robust seakeeping abilities, and fuel-efficient engines, making it ideal for missions such as maritime security, counter-piracy operations, fisheries protection, and search and rescue.

The vessel features sophisticated surveillance systems capable of detecting and engaging various surface contacts, from small wooden sailing craft to larger vessels. Its modular platform allows for mission flexibility, adapting to the diverse challenges of African waters. Additionally, the vessel can launch and recover two sea boats sequentially and operate them concurrently. It also supports helicopter transfers of personnel and light stores at sea.

Technical Specifications

- Length: 54.0 meters (177.2 feet)
- Engines: Three 2,240 kW (3,270 hp) main engines
- Speed: Capable of 25.5 knots
- Endurance: 21 days
- Complement: 47 persons

The partnership between SAS, Fincantieri, and Vard Marine brings together extensive global experience and regional expertise. Fincantieri, a leading global shipbuilding group, contributes its naval architecture and design capabilities, while Vard Marine provides technical expertise. SAS, strategically located on South Africa's east coast, ensures efficient and cost-effective production of the Afrika class vessels.

SAS holds exclusive marketing and manufacturing rights, ensuring that the economic benefits of this partnership will be felt across South Africa and potentially the broader African defence sector. Localized production in South Africa will bolster the country's defence industry, promote technology transfer, and expand the regional supply chain. According to SAS CEO Prasheen Maharaj, this initiative will create jobs, develop skills, and foster technology transfer within South Africa and the broader African continent.

C-390 MILLENNIUM

UNBEATABLE COMBINATION

MISSION-READY WITH THE PORTUGUESE AIR FORCE

We're delighted to announce the Portuguese Air Force now joins the Brazilian Air Force as a C-390 Millennium operator. The first Portuguese aircraft of the newly formed 506 Squadron is now in service at Beja Air Base, with four more aircraft to be added in the near future.

A growing number of countries are choosing the C-390 Millennium (including Hungary, Netherlands, Austria and Czech Republic) attracted by its unbeatable combination of technology, speed, performance and multi-mission capabilities. Hungary will take delivery of their first C-390 Millennium in 2024 - another milestone for an incredible aircraft that has already achieved 10,000 flight hours with the Brazilian Air Force.

#C390UnbeatableCombination
embraerds.com



CHALLENGE.
CREATE.
OUTPERFORM.

Roketsan aims to expand reach in Africa



At AAD 2024, Roketsan showcased its distinguished product range, including products of its Smart Micro Munition family.

Aiming to expand its market share in Africa, Turkish missile producer Roketsan participated in the African Aerospace and Defence (AAD) Expo, held in South Africa.

The AAD Expo, began on Sept. 18 and runs until Sept. 22, is Africa's only event combining both a defense exhibition and an air show. Roketsan, Türkiye's leader in rocket and missile technologies, showcased its advanced products to African nations at the expo, aiming to strengthen defense cooperation on the continent.

Roketsan's General Manager Murat İkinci highlighted the significance of the event, saying, "As one of the top 100 defense companies in the world, we continue to proudly fly our flag in many regions. African countries, with which we have strong partnerships in defense, are of great importance to us. AAD 2024 provides us with a crucial platform to enhance our relations across the African region and open doors for new export opportunities."

At AAD 2024, Roketsan is presenting a range of state-of-the-art products, including the smart mi-

cro munition family (MAM-C, MAM-L, MAM-T), anti-tank systems such as the KARAOK short-range anti-tank weapon, Cirit laser-guided missile, OMTAS medium-range anti-tank weapon and the L-UMTAS long-range laser-guided anti-tank missile system. In the air defense category, Roketsan is featuring the SUNGUR air defense missile system and HISAR-O air defense missile.

Additionally, the TRG-122 and TRLG-230 missiles, Cakir cruise missile, TEBER-81 guidance kit, KMC-U tactical missile launch system, and BURC mobile air defense system are also being showcased, with a special focus on the African market.

Similarly, in 2016, Roketsan showcased its latest products and systems at the AAD 2016 Show, held in Pretoria, South Africa between September 14 and 18. Deputy Minister of National Defence of the Republic of Turkey, Turkish Ambassador to Pretoria and his staff as well as senior delegations from various countries such as South Africa, Senegal, United Arab Emirates, Nigeria, Iran, Pakistan were some of our visitors.

Dynateq International unveils new Rogue Weapon Systems

SARAH LESEDI

Dynateq International has recently introduced an advanced lineup of weapon systems under the Rogue series, designed to enhance combat capabilities across various platforms. The new systems cater to both land and sea operations, offering versatility and cutting-edge technology.

The original Land Rogue system is equipped with four 76 mm smoke grenade launcher tubes, providing effective concealment and protection. The Super Rogue series expands on this foundation, supporting 20 mm calibre weapons for extended-range combat. Notably, the Super Rogue 2 can mount a 20×139 mm cannon, while the Super Rogue 3 is compatible with a 20×128 mm cannon. Additionally, these systems can be outfitted with 30×173 mm and 30×113 mm cannons, offering flexibility for various combat scenarios.

For low-intensity operations, Dynateq offers the Rogue LTE, a lightweight version tailored for 7.62 mm and 12.7 mm applications. This variant ensures mobility and effectiveness in less demanding environments.

The Land and Sea Rogue Remote Controlled Weapon System (RCWS) features a console with a display screen for camera feeds and a joystick for control. The turret is gyro-stabilised and electrically driven, ensuring precision and stability. An optical observation and sighting system is mounted alongside the weapon, equipped with daylight and thermal imaging cameras, and



The Super Land Rogue remote control weapon station from Dynateq International is equipped with the Rheinmetall KAE 20 x 128mm rapid fire cannon, using the NATO standard ammunition. Alternative 20mm weapons can also be fitted such as the Denel GI-2 20 x 139mm rapid fire cannon.

a laser rangefinder.

A significant highlight of the Rogue series is the 23 mm Super Rogue, specifically developed for the African defence market. This variant is compatible with 23 mm calibre cannons, such as those used in the ZU-23-2 and SZU-23-4 anti-aircraft systems, which are widely deployed in the region.

Dynateq has also introduced a new iteration of the 12.7 mm Sea Rogue RCWS, designed for fast interceptor vessels where weight is a critical factor. Weighing just 180 kg, including the weapon and 200 rounds of ammunition, this system is ideal for high-speed naval platforms. It offers an azimuth range of -170° to +170° and an elevation range from +70° to -20°. The advanced electro-optical suite includes a day camera, thermal imager, and laser rangefinder, with optional optical tracking for enhanced accuracy. The system can also be integrated with a Combat

Management System (CMS) for improved operational coordination.

The entire Rogue lineup is engineered to perform reliably in challenging environments, such as those found in the Middle East. The Rogue and Super Rogue systems have been exported to several countries, including Benin, Malaysia, Indonesia, and the United Arab Emirates. Domestically, the South African Navy employs naval versions of the Rogue system on its frigates and newly commissioned Multi-Mission Inshore Patrol Vessels (MMIPVs).

Dynateq International's new Rogue weapon systems represent a significant advancement in military technology, offering robust solutions for both land and sea operations. These systems are poised to enhance the combat effectiveness of armed forces worldwide. Shadowfax UAS unveils SF30 VTOL UAV at AAD 2024

SH15

SUPERIOR HOWITZER OF CHINA

SH15 155 mm self-propelled gun howitzer adopts plenty of innovative designs which endows the howitzer with advantages of high accuracy, rapid maneuverability, strong firepower, quick response, and high reliability, representing the development trend of 155 mm artillery.

SH15 combat units generally operate as battalions or batteries. The weapon system possesses function modules including reconnaissance, command control, strike, assessment, and support, leading to a closed-loop combat unit to carry out long-range fire suppression, precise striking and fire support. It can be deployed in heavy mechanized troops, artillery, coastal defense troops.

Visit Us at Hall3-XD12



www.norinco.com

ShadowfaxUAS unveils SF30 VTOL UAV at AAD 2024



SARAH LESEDI

ShadowfaxUAS, a new player in the unmanned aviation market, has launched its latest innovation, the SF30 VTOL (Vertical Takeoff and Landing) UAV, at the Africa Aerospace and Defence (AAD) 2024 expo. This cutting-edge UAV is designed to deliver exceptional performance, rivaling larger UAVs in endurance and range while maintaining a compact and cost-effective design.

Impressive Specifications and Capabilities

The SF30 boasts a flight endurance of over 10 hours and a range of 800 km with a 7 kg payload, making it a formidable competitor in its class. Despite its compact size, the SF30 offers capabilities typically found in much larger UAVs. The aircraft features four electric motors with position-locking propellers for vertical lift and a four-stroke petrol engine driving a pusher propeller for horizontal flight, achieving a cruising speed of 90 km/h.

Key specifications include:

- Empty Weight: 22 kg
- Fuel and Payload Capacity: 10 kg
- Wingspan: 4.13 meters
- Length: 2.48 meters
- Height: 0.65 meters

ShadowfaxUAS has emphasized the SF30's versatility and ruggedness. The UAV's robust VTOL capability allows it to operate in challenging environments, including taking off and landing from the top of a vehicle, without the need for runways or launch equipment. The auto-feathering VTOL propellers enhance aerodynamic performance and flight duration.

The SF30's design includes a 40-liter payload bay, facilitating easy changes of payloads and sensors. This flexibility allows for combination payloads, such as a wide-area scanner coupled with a gimballed day/night tracking camera.

The SF30 is designed for high reliability and ease of maintenance. It can be disassembled into a 1.6-meter-long transport box, making it highly portable and suitable for rugged environments. The UAV can be assembled and flight-ready in less than an hour, with a turnaround time between flights of under 20 minutes.

A notable feature is the removable forward propulsion engine unit, which can be swapped out in seconds, enhancing reliability and platform availability. This modular approach ensures that the SF30 remains operational with minimal downtime.

The SF30 is equipped to carry a range of communications equipment, including satellite communications, encrypted MIMO radios, and cellular systems, providing extensive operational range even in remote areas. Additionally, the UAV is ITAR (International Traffic in Arms Regulations) free, allowing for export to most countries.

ShadowfaxUAS, registered with the South African National Conventional Arms Control Committee (NCACC), aims to make a significant impact in the UAV market with the SF30, offering a high-performance, cost-effective solution for various applications.

Avior Labs' Elevation VTOL UAV Enters Production



SARAH LESEDI

Aviator Labs, a leading South African unmanned aerial vehicle (UAV) manufacturer, has announced that its new Elevation VTOL (Vertical Takeoff and Landing) UAV is now in production. The company showcased the Elevation-G (Gimbal) aircraft at the Africa Aerospace and Defence (AAD) 2024 expo, marking a significant milestone in its development.

The Elevation series includes two main variants: the Elevation-S (Survey) and the Elevation-G (Gimbal). The Elevation-S, the original design, is tailored for survey missions and can carry various fixed high-definition (HD), thermal, or multispectral cameras.

In contrast, the Elevation-G is optimized for surveillance applications, such as security and policing, and is equipped with a NextVision DragonEye2 gimbal, featuring the latest tracking computer and real-time video streaming capabilities.

Both production versions of the Elevation UAV feature locally developed hidden embedded antennas integrated into the composite structure, along with several other enhancements over the prototypes. Dr. Benjamin Broughton, Managing Director of Avior Labs, highlighted these im-

provements, emphasizing the company's commitment to innovation and local manufacturing.

Avior Labs first unveiled the Elevation prototype at AAD 2022. Two years later, the company has commenced low-rate production, with plans to ramp up to full production by 2025. Orders for both the Elevation-S and Elevation-G are now being accepted at AAD 2024.

"We are one of very few truly South African VTOL manufacturers capable of mass-producing drone systems, including the airframes," said Dr. Broughton. The design IP, firmware, moulds, manufacturing IP, and many electronic components are proprietary to Avior Labs. The company also holds a patent and several trademarks associated with the Elevation series.

The airframes are manufactured at two facilities in Silverton, with final assembly, configuration, and software integration conducted at the company's design and integration office in Irene. Excluding payloads, the drones have approximately 85% South African content. While Avior Labs is actively marketing the Elevation UAVs overseas, they are also seeking significant interest from local operators and government agencies at AAD.

PUSH THE LIMITS **XX**

SWITCHBLADE // IN A LEAGUE OF ITS OWN





Space Force provided overwatch for Nigér withdrawal

EKENE LIONEL

Commercial satellite services played a crucial role in supporting the withdrawal of U.S. forces from air bases in Niger this summer.

Chief of Space Operations Gen. B. Chance Saltzman highlighted this achievement during his keynote address at the Air, Space & Cyber Conference on September 17, emphasizing the integration of commercial capabilities into military operations and the advancement of space-based intelligence, surveillance, and reconnaissance (ISR).

The West African nation's ruling junta in April ordered the U.S. to withdraw its nearly 1,000 military personnel from the country, in an embarrassing setback for Washington that followed a coup last year in the West African nation.

The US agreed in April to pull troops from key drone base in Nigér, subsequently, Military instructors and personnel from Russia's defence ministry arrived in Nigér, signaling that the West African country is building closer relations

with Moscow like its junta-led neighbours. The military instructors are bringing an air defense system and will train the Nigerien troops.

The TacSRT Pathfinder Program

Gen. Saltzman detailed the successes of the Tactical Surveillance, Reconnaissance, and Tracking (TacSRT) program, a \$40 million pilot initiative launched to support AFRICOM requirements. The program aims to complement the intelligence community's efforts by providing unclassified operational planning products on tactically relevant timelines. Since its inception, TacSRT has delivered critical updates on various issues, including flooding in Kenya and extremist activities in central Africa.

However, the most notable achievement of TacSRT was its support during the U.S. forces' withdrawal from Air Base 201 in Niger this August. The program functioned as a marketplace, allowing the Space Force to procure tactical information from commercial providers to aid combatant commanders.

During the withdrawal, TacSRT maintained

overwatch within a 5-kilometer radius of the base, significantly enhancing situational awareness for security forces on the ground. The timeline from data collection to delivery was reduced from an average of three-and-a-half hours to as little as one-and-a-half hours by the end of the operation. This rapid turnaround was crucial in ensuring the safety and efficiency of the withdrawal process.

The two U.S. air bases in Niger had been pivotal for missions targeting extremist groups in the region. In May, the Pentagon issued a formal directive for the withdrawal of all 1,000 U.S. combat troops from Niger, marking a significant shift in the United States' counterterrorism operations and its strategic stance in West Africa.

However, following a military coup in July 2023, the Pentagon decided to withdraw its forces. Amid the ensuing unrest, the Space Force's ability to monitor the situation provided invaluable support where ground-based situational awareness was limited.

The move disrupts longstanding counterterrorism efforts in the Sahel region, where Niger, and specifically the U.S.-constructed drone base at Agadez, has been central to U.S. strategy.

Before the coup, Niger had been a key partner in the U.S. fight against insurgents in the Sahel region of Africa, who have killed thousands of people and displaced millions more.

Future Prospects and Funding

The success of TacSRT underscores the potential of integrating commercial satellite services into military operations. The Space Force's first Commercial Space Strategy has ranked TacSRT fourth among mission areas for developing hybrid architectures combining military and commercial systems. With Congress allocating an additional \$40 million for the program in fiscal 2024, discussions are ongoing regarding funding levels for 2025.

Gen. Saltzman emphasized that TacSRT is not about targeting but providing situational awareness to enhance operational planning and safety. The Space Force, in collaboration with the National Reconnaissance Office, is also working on a separate program to deploy targeting satellites.

"It's taking the data that's already available, procured through the NRO and some of it through the NGA, and getting the commercial analytics to make sense of it and to figure out some

pattern movements, if you will," Kniseley said during his own media roundtable.

In that sense, Saltzman said, the program is almost akin to "surveillance as a service." Through a virtual "marketplace" of vetted commercial providers, Saltzman explained, the Space Force puts out broad requests and gets, not raw images, but situation reports. In the Niger case, he said, they asked for anything anomalous occurring within "five kilometers" around the air base.

Commercial satellite imagery has proven to be a lucrative market for everything from environmental monitoring and forecasting to disaster response, areas where the U.S. military is often called upon for help. The Pentagon wants to shift some of its own surveillance and reconnaissance enterprise for tracking threats to space as well.

Expanding the Role of Commercial Satellite Services

The integration of commercial satellite services into military operations is not just about enhancing situational awareness but also about leveraging the vast capabilities of the commercial sector. By utilizing commercial analytics, the Space Force can interpret data more efficiently and identify patterns that might otherwise go unnoticed. This approach allows for a more dynamic and responsive surveillance system, capable of adapting to various operational needs.

Surveillance as a Service

The concept of "surveillance as a service" represents a paradigm shift in how military operations can be supported. Instead of relying solely on traditional military assets, the Space Force can tap into a network of commercial providers to obtain timely and relevant information. This model not only broadens the scope of available data but also accelerates the decision-making process by providing actionable intelligence in near real-time.

Applications Beyond Military Operations

The potential applications of commercial satellite imagery extend far beyond military operations. Environmental monitoring, disaster response, and humanitarian aid are just a few areas where this technology can make a significant impact. By integrating commercial satellite services, the U.S. military can enhance its capabilities in these domains, providing critical support during crises and improving overall mission effectiveness.

Egypt sends more arms to Somalia as regional tension simmers

Patrick Kenyatte

Somalia has received one of the largest modern arms shipments from its ally, Egypt. An Egyptian warship delivered a substantial cache of weaponry, including anti-aircraft guns and artillery, to Somalia's port, according to port and military officials.



This marks the second major arms delivery from Egypt to Somalia this year, reflecting the growing military cooperation between the two nations. The strengthening of ties is largely driven by their shared mistrust of Ethiopia.

In August, Egypt and Somalia signed a joint security pact, leading to several planeloads of arms being sent to Mogadishu, Somalia's capital. The agreement was signed after bilateral talks between Egyptian President Abdel Fattah El-Sisi and his Somali counterpart, Hassan Sheikh Mohamud, who was on a two-day visit to Cairo.

The relationship between Ethiopia and Somalia has been strained, particularly after Ethiopia's preliminary agreement in January with Somaliland in order to gain access to the Red Sea. This deal involved leasing land for a port in exchange for potential recognition of Somaliland's independence from Somalia, a move that Mogadishu views as an assault on its sovereignty. Ethiopia's construction of a vast hydro dam on the Nile River has also

been a point of contention with Egypt, further complicating regional dynamics.

Ethiopian Air Force prepares for war with Egypt
Ethiopia currently has at least 3,000 soldiers stationed in Somalia as part of the African Union peacekeeping mission (Atmis), which is engaged in combating Islamist insurgents. Additionally, an estimated 5,000-7,000 Ethiopian troops are deployed in other regions of Somalia under a bilateral agreement. Somalia has demanded the withdrawal of all Ethiopian troops by the end of the year unless the Somaliland agreement is scrapped.

In response to the escalating situation, Egypt has offered to contribute troops to a new peacekeeping mission in Somalia to replace the current one, as announced by the African Union in July. However, Cairo has not made any public comments on this offer.

According to a recent report by the UAE's National daily newspaper, Egypt has currently deployed a contingent of 1,000

commandos to Somalia, with plans for an additional 10,000 troops to arrive soon. This contingent will include 5,000 personnel under the auspices of the African Union Mission in Somalia (AUMIS) and another 5,000 as part of bilateral agreements with the Somali government.

Recent Developments

The recent arms shipment follows last month's delivery of military aid by aircraft from Egypt to Mogadishu. This increased military support comes after the U.N. Security Council lifted a more than three-decade arms embargo on Somalia in December, allowing the country to bolster its defense capabilities.

The delivery of modern weaponry from Egypt to Somalia underscores the deepening alliance between the two nations amid rising regional tensions. As Ethiopia, Somalia, and Egypt navigate their complex relationships, the potential for further friction remains high, with significant implications for the stability of the Horn of Africa.



Protector RG Mk1

A NEW ERA IN DEFENCE & SECURITY BEGINS

Leveraging the United Kingdom's world-class defence and aerospace capabilities, the RAF's Protector RG Mk1 will provide unmatched awareness and multi-domain integration. Together, we make Protector the most advanced and versatile remotely piloted aircraft system ever built.



Enabling Information Dominance



Scan to learn more

©2023 GENERAL ATOMICS
AERONAUTICAL SYSTEMS, INC.