



*Sustaining Global
Defence Productions*



**Sustaining
Defence Production,
and
enhancing transfer
of technology.**

Company Profile





NATIONAL ANTHEM

Nigeria, we hail thee,
Our own dear native land,
Though tribes and tongues may differ
In brotherhood we stand,
Nigerians all, and proud to serve
Our sovereign Motherland.

Our flag shall be a symbol
That truth and justice reign,
In peace or battle honour'd,
And this we count as gain,
To hand on to our children
A banner without stain.

O God of all creation,
Grant this our one request.
Help us to build a nation
Where no man is oppressed,
And so with peace and plenty
Nigeria may be blessed.

NATIONAL PLEDGE

I pledge to Nigeria my country.
To be faithful, loyal and honest.
To serve Nigeria with all my strength.
To defend her unity,
and uphold her honour and glory.
So help me God



Sustaining Global
Defence Productions





D7G Nigeria is implementing the renewed Hope Agenda of President Bola Ahmed Tinubu GCFR in Nigeria and Africa as a whole, particularly in the transfer of advanced military technology to Nigeria.

Among our key performance indicators are:

1. Construction of a Military Jetty base in Lagos for the berthing of vessels, with an additional area for the production, assembly, and storage of defense equipment, covering a land area of 160,000 square meters.
2. Establishment of the first African production and assembly factory for naval military ships, drones, armored vehicles, and UAVs.
3. Creation of the first factory in Africa that assembles, repairs, and maintains helicopters.
4. Assembly of SKD and CKD (semi-knockdown and completely knockdown) parts.
5. Production of 300 million rounds of ammunition annually.
6. Secure storage for military equipment and stocks.
7. Diplomacy and fostering relationships with other countries.
8. Enhanced transfer of knowledge through training.
9. Creation of 2,000 to 5,000 jobs in Nigeria.
10. Manufacturing and assembly of military 6x6 Buffalo MRAPs.
11. Fostering robust corporate social responsibility.



Our vision for Nigeria

Empower the younger generation

Cultivate patience and perseverance

Foster ambition to reach greater heights

Facilitate the transfer of knowledge and skills

Create ample employment opportunities

Ensure a good quality of life for all

Our core values:

Integrity

Loyalty

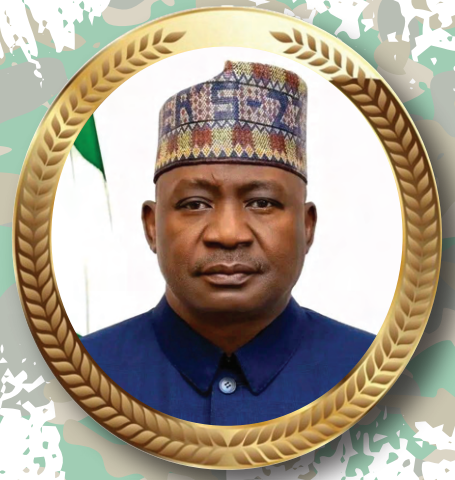
Honesty

Patience



Sustaining Global Defence Productions





General Christopher Gwabin Musa (rtd) OFR
Honourable Minister of Defence



Dr. Bello Mohammed Matawalle MON
Honourable Minister of State for Defence



Mr. Richard P. Pheelangwah
Permanent Secretary
Ministry of Defence



General Olufemi Olatubosun Oluyede
Chief of Defence Staff



LT Gen W Shaibu
NMA GSS DSO (LR) FTAM psc fdc (+)
fndu (USA) CM
Chief of Army Staff



Rear Admiral Idi Abbas
Chief of the Naval Staff



Air Marshal Sunday Kelvin Aneke
Chief of the Air Staff



IGP Kayode Adeolu Egbetokun
Phd.D, NPM
Inspector General of Police
Federal Republic of Nigeria





CEO D7G
Osman Chennar



Major General Bi Alaya
DSS NHWC Egypt psc(+) plsc(+) Canada FNSE
Director General
Defence Industries Corporation of Nigeria



Major General
Mainasara Abdul Masanawa (rtd)
Executive Director Land Systems
(Innovation and R&D)



Brigadier General
Morakinyo Akinkunle Abiodun (rtd)
Director



Major General
Adikwu Elias Attu (rtd)
Director



Major General
DIO Ehiorobo (rtd)
Director Production



Rear Admiral
Harry Onyelukachukwu Ngonadi (rtd)
Head of DICON - D7G Board of Directors

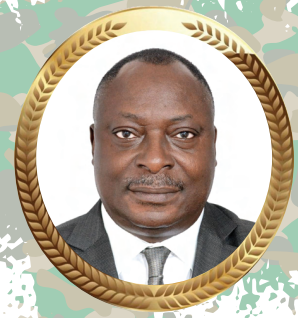


Air Vice Marshal
Raimi Akanbi Salami (rtd)
Director



Air Vice Marshal
Sule Lawal (rtd)
Director





Mr. Blessing Alakpa Akpotu (rtd)
Director



LASBERY CHIDOZIE ONYENUFORO
Chief of Staff



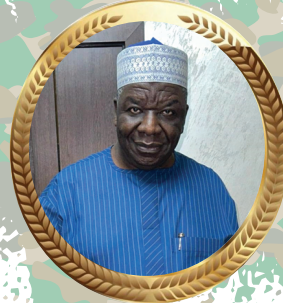
Mr. KARIM ALIBAY
Special Adviser to the CEO



Commodore MA IBRAHIM
Deputy Director Shipyard



Major General JO Oni (rtd)
Director of Procurement



Rear Admiral Abdu Shettima (rtd)
Director Shipyard



ADEMOLA WASIU ALLI Phd (FCA)
Director of Finance



Alhaji Bukar
Account Department





CEO D7G
Osman Chennar

Osman Chennar is the Chairman, President, and Chief Executive Officer of D7G

Results-oriented and strategic executive with over 20 years of experience in the military equipment industry. Has achieved leading successful teams, developing innovative solutions, and driving business growth. Expertise in providing high-quality products and services and adhering to

strict safety and quality standards. Skilled in cultivating relationships with government agencies and suppliers. Managing large-scale projects and budgets, and ensuring operational efficiency.

Chennar conceptualised and executed the vision of partnership, DICON and D7G. Member of several business roundtable companies.

Professional Profile

D7G - Chief Executive Officer.

- Military Equipment Company, maintenance of equipment, production and stocking of various military equipment.
- Establish and maintaining relationships with NATO, military branches, government agencies and defence contractors.
- Oversee the design, development, production and maintenance of a wide range of military equipment including vehicles, weapons systems and communication devices.
- Cultivate a positive company structure that fosters innovation, collaboration and employee engagement.
- Increase self - dependency of African Nations in the defence sector by entering limited liability joint ventures with governmental organisations.
- Establishing a production line that has its own jetty in Lagos.
- Assembly of SKD's and CKD's of military equipment.
- Training and education of personnel.
- Establishing an International company responsible for mining and petroleum products.
- Create ample employment opportunities.
- Lead successful expansion initiatives into new markets, geographical regions, governmental agencies and other related industries.
- Digital Intelligence.
- Cyber Security.
- Robust CSR which emphasises more on health and education.

Core Skills

- Strategic Planning and Execution
- Construction Management
- Business Development
- Relationship Management
- Communication and Presentation Skills
- Budgeting and Financial Management
- Leadership and Team Building
- Project Management and Execution
- Quality Assurance and Compliance
- Quality Control and analytical skills
- Manage Budgets and financial plans



Maj Gen Babatunde Ibrahim Alaya was born on 26 Dec 71 at Ilorin Kwara State. In 1991, he was admitted into the Nigerian Defence Academic as a member of 43rd Regular Course. In his second year at the Nigerian Defence Academy, he was admitted into the United States Military Academy as a member of Class of 1997 in May 1993.

He graduated with honours in the top 10 per cent of his class, with a Bachelor of Science degree in Mechanical Engineering. He was commissioned Second Lieutenant on 31 May 1997 into the Nigerian Army Electrical and Mechanical Engineering Corps.

Maj Gen Alaya has held a number of appointments, some of which include:

- * Military Assistant to the Chief of Staff United Nations Mission in Liberia.
- * Directing Staff at the prestigious Armed Forces Command and Staff College, Jaji.
- * Directing Staff at the Canadian Land Staff Course, Ontario.
- * Assistant Director Operations at Department of Training and Operations Army Headquarters.
- * Commanding Officer Guards Brigade Workshop.
- * Ag Chief of Staff Headquarters Nigerian Army Electrical and Mechanical Engineers.
- * Comd 107 Division Equipment Support.
- * He is currently the Comd Command Engineering Depot.

Maj Gen Alaya has attended a number of courses. These include:

- * Young Officers' Course Infantry.
- * Young Officers' Course EME.
- * Officers Armament Course.
- * Airborne Course.
- * Air Assault Course United States.
- * Master Fitness Trainer Course United States.
- * Sapper Leader Course United States.
- * Officers Armoured Fighting Vehicle Course.
- * Officers Armament Course.
- * Workshop Company Commanders' Course.
- * Junior Course Canada.
- * Senior Course at the prestigious Armed Forces Command and Staff College, Jaji.
- * High War Course, Nasser Higher Military Academy, Egypt.
- * He also holds a Master in International Relations and Strategic Studies and Master in Mechanical Design and Production Engineering.

Maj Gen Alaya has the following operational experiences:

- * United Nations Mission in Liberia.
- * Operation LAFIYA DOLE and all subsidiary operations.
- * Operation HAKIN KAI and all subsidiary operations.

His decorations include:

- * MSS
- * Passed Land Staff Course (plsc +) Canada
- * psc(+)
- * Fellow Nigerian Society of Engineers

Maj Gen Babatunde Ibrahim Alaya is married and blessed with children. His hobbies include running, reading and watching movies.



**Major General
Bi Alaya**
Director General
Defence Industries Corporation of Nigeria





Major General
Mainasara Abdul Masanawa (rtd)
 Executive Director Land Systems
 (Innovation and R&D)

Major General (retired) Mainasara Abdul Masanawa is a seasoned logistician with specialty in armament and ammunition. He is a graduate of chemistry from the Nigerian Defence Academy. Over a distinguished career spanning more than three decades, he held several key appointments in command, staff and instructional roles, including Directing Staff at Nigerian Army College of Logistics and Management, Commander Army Central Ammunition Depot, Agunu, Director Land Service Ammunition, Director Equipment Procurement, Chief of Staff Nigerian Army Ordnance Corps, Commandant Nigerian Army Ordnance

School, and Director Policy at Defence Headquarters. He retired in December 2021 as a Major General.

Following his retirement, Maj Gen Masanawa has been involved in defence innovation and industrial development. He focuses on enhancing Nigeria's defence capabilities and reducing dependence on foreign procurement of arms and equipment. A chartered Fellow of the Institute of Logistics and Transport and a Senior Armament and Ammunition Technical Officer, he also holds a Master's degree in Public Administration and Master's in Policy Management and Strategic Studies. He currently serves as Director of Land Systems at DICON-D7G Ltd and is a Senior Lecturer at the University of Benin's Centre for Forensic and DNA Studies.

Brigadier General Morakinyo Akinkunle Abiodun who is an astute Logistician is the Director of Logistics and Marketing of DICON - D7G Limited. He joined the Nigerian Army as a Second Lieutenant in 1991, commissioned into the Nigerian Army Corps of Supply & Transport. He attended many courses both at home and abroad during his career. Morakinyo as a Logistician was trained both by the United Nations (UN) in Sierra Leone and New York when he was the Staff Officer Grade 2 United Nations Mission in Sierra - Leone (UNAMSIL) and the North Atlantic Treaty Organisation when he attended the Partnership for Peace Logistics Officer's Course at the Norwegian Defence Institute (NODEFIC), Oslo, Norway. He was later trained at the Naval Postgraduate School, Monterey, California, USA, on Civil Military Responses to Terrorism. Morakinyo was one of the pioneer members who was trained in the Integrated Logistics Concept and also Supply Chain Management. He served in command, staff and was also an instructor while in service. Some of the units he commanded were 23 Supply & Transport Company, Yola, Adamawa State, 4 Petroleum, Oil and Lubricants Depot, Abakaliki, Ebonyi State, 82 Division Supply & Transport Command, Enugu and Deputy Commandant Nigerian Army School of Supply & Transport, Benin City, Edo State. He was also the Managing Director of Nigerian Army Post Exchange (NAPEX), Bonny Cantonment, Victoria Island, Lagos where he introduced a lot of concepts and ideas to help develop NAPEX.

Morakinyo bagged a B.Sc (Hons) Geography from the prestigious Nigerian Defence Academy, Kaduna and an M.Sc (Strategic Studies) from University of Ibadan, Oyo State. He is a Chartered Member Institute of Logistics and Transport (London) (CMILT) and also a Chartered Member of the Nigerian Institute of Management (CMNIM). He retired from the Nigerian Army on 27 October 2023 and joined DICON - D7G immediately. He is happily Married and blessed with a son. He loves travelling, driving, watching movies, listening to music and taking long walks.



Brigadier General
Morakinyo Akinkunle Abiodun (rtd)
 Director



● Maj Gen Adikwu Elias Attu (Rtd) was born on 30 Jan 69 at Lagos Island of Lagos State but hails from Benue State. Elias was admitted into the Nigerian Defence Academy (NDA) on 21 Sep 86 as a member of Regular Course 38 and was commissioned Second Lieutenant into the Nigerian Army Infantry Corps on 21 Sep 91. Attu holds a Bachelor of Science Degree (Honours) in Chemistry from the NDA and a Masters Degree in Strategic Studies from University of Ibadan and a PhD in Security and Strategic Studies from Nasarawa State University, Keffi. Maj Gen Attu was privileged to have served in various capacities in the Nigerian Army. He was Staff Officer Grade 1 Personnel Service, Department of Administration Army Headquarters from 2006-2007 and Commanding Officer 195 Battalion from 2007-2008. Attu was a Senior Instructor and Chief Instructor (Peacekeeping Operations) at the Martin Luther Agwai International Leadership and Peace Keeping Centre from 2009-2012 and Assistant Director Transformation at the Defence Headquarters. He was also a Sector Commander Special Task Force at Jos, Directing Staff and Director of Coordination at National Defence College (NDC) from 2015-2017, Commander 9 Brigade Nigerian Army Ikeja, Lagos State on 20 Jan 17, Deputy Director Nigerian Army Resource Centre Consult from April 2018 – August 2019 and presently the Deputy Commandant/Director of Studies NDC from 5 August 2019 to July 2021. He was then appointed Deputy Chief of Policy and Plans/Director Staff Duties Army Headquarters, Director Peacekeeping Operations, Defence Headquarters and Commander Defence Headquarters Garrison from where he disengaged from service in October 2023. He is currently a director with D7G Limited.



**Major General
Adikwu Elias Attu (rtd)**
Director

Military courses attended include Commanding Officers' Course in 2008, the UN Training Assistance Team/Mission Training Cell Course in Bangkok, Thailand in 2002, Command and Staff Operations Skill Course. He also attended the Training of Trainers Course on Leadership Teamwork and Team Management in Peace Support Operations by Africa Centre, Kings College London, Communication and Negotiation Skills Training for Peacekeepers by United States Institute of Peace amongst others. Maj Gen AE Attu is an alumni of the Harvard Kennedy School Executive Programme.

Maj Gen Attu has participated in a number of operations among which are ECOMOG OP LIBERTY 1993-1995, ECOMOG OP SANDS STORM-1998-1999, United Nations Mission in Sierra Leone 2001-2002, BAKASSI OP HARMONY 2005-2006 and OP ZAMAN LAFIA. ●



**Major General
DIO Ehiorobo (rtd)**
Director Production

● Major General Dickson Igbiwisi Ehiorobo is a retired senior officer of the Nigerian Army (NA). He is a member of 38 Regular Combatant Course, Nigerian Defence Academy, Kaduna and was commissioned into the Nigerian Army Corps of Electrical and Mechanical Engineers. He holds a Bachelor of Science Degree in Physics and a Master of Science Degree in Physics Electronics. He also has a Masters of Science Degree in Strategic Management and Policy Studies. He participated in several seminars and workshops within and outside the NA. During his military career, he attended several courses, some of which include the Young Officers' Course Electrical and Mechanical Engineers; Civil Military Coordination Course in Accra – Ghana; Junior and Senior staff Courses; Logistics Management Course and the Senior Executive Course at the Nigerian Institute of Policy and Strategic

Studies, Kuru - Jos. He held several command, staff and instructional appointments. Notable among them are Commanding Officer Guards Brigade Workshop; Seconded as Senior Military Logistics Planning Officer at the Joint Logistics Planning Centre, United Nation Mission in Liberia and he was a Directing Staff (instructor) at the Nigerian Army College of Logistics. Also, he was Chief of Staff at Headquarters Nigerian Army Corps of Electrical

and Mechanical Engineers; Director Equipment Management at Army Headquarters Department of Logistics; Ag Director General Defence Industries Corporation of Nigeria and Deputy Commandant Nigerian Army College of Logistics. Additionally, he was Commandant, Nigerian Army School of Electrical and Mechanical Engineering; Commander Corps of Nigerian Army Electrical and Mechanical Engineers and Director of Technical Support Services, DHQ, the last appointment he held before retirement. He is a Fellow, Chartered Institute of Logistics and Transport., Fellow of the Nigerian Metallurgical Society; Member, Nigerian Society of Engineers; Fellow International Professional Managers Association -UK (FIPMA-UK), Fellow Nigerian Army Resource Centre and Member National Institute (mni). He is currently the MD DICON/D7G.



Rear Admiral

Harry Onyelukachukwu Ngonadi (rtd)
Head of DICON - D7G Board of Directors

“A strategic level distinguished Navy professional stepping forward with 35 years of experience in ashore & float Command and above water warfare techniques. Proven expertise in commanding naval operations, enhancing maritime security, and fostering international maritime cooperation. Committed to excellence, integrity, and advancing the strategic goals of the Navy. Pursuing a pivotal leadership role in the maritime sector to utilize my strategic acumen, operational proficiency, and exceptional leadership capabilities in enhancing maritime security and promoting national interests.

CAREER HIGHLIGHTS:

- * Appointed as Navy Secretary, Naval HQ, thereafter Flag Officer Commanding Eastern Naval Command, and the NN foremost Command with vital national strategic and economic assets and subsequently Director Development Defence HQ.
- * Merit of taking part in various National assignments Committee on the formulation of the New National Security Strategy anchored by the office of the National Security Adviser (NSA) and appointed by President Muhammadu Buhari in 2018 (Member, Defence and Security Think-Tank Team) to proactively and continuously examine the security in Nigeria and offer advice as necessary.
- * Attended the National and International Security Senior Executive course at Harvard Kennedy School Boston USA, and Said Business School University of Oxford course on Negotiation.
- * Attended the 2019 Effective Director Program at the prestigious Lagos Business School.
- * Served as President/ Chairman of the governing Board of Emergency, Crisis & Disaster Risk Management Institute.
- * A seasoned seaman and Fellow Chartered Institute of Shippers and a Resource person at the annual Defence Intelligence Agency Defence Adviser/ Attachee.

SIGNATURE STRENGTHS & COMPETENCIES

- * Strategic Planning and Execution
- * Naval Operations Management
- * International Maritime Cooperation
- * Leadership and Team Building
- * Budget and Resource Management
- * Operational Readiness and Training
- * Crisis and Conflict Management
- * Public Speaking and Representation
- * Performance Evaluation and Improvement
- * Policy Development and Implementation

AWARDS AND RECOGNITION

- * GSS-General Service Star
- * DSS-Distinguished Service Star
- * PSC+-Passed Staff College Dagger
- * Bdc (BD)-National Defence College, Bangladesh
- * MSS- Meritorious Service Star
- * FCIS-Fellow Chartered Institute of Shippers
- * FSS-Force Service Star



ACHIEVEMENTS

- * NNS AGU
- * Watch Keeping Duties on Fast Attack Craft NNS ENYIMIRI
- * Missile Gunnery Officer MEKO 360
- * Frigate NNS ARADU (NN Flagship)
- * Watch Keeping Duties on Fast Attack Craft (Missile) NNS AGU
- * Aide-de-camp (ADC) to the Military Governor of Imo State (1987-1989)
- * Landing Ship Tank (LST) NNS AMBE
- * Executive Officer, Naval Air Station
- * Directing Staff, Armed Forces Command and Staff College, Jaji
- * Chief Instructor, Naval Wing, Nigeria Defence Academy, Kaduna
- * Commander, Naval Unit Abuja
- * Member, FCT Security Committee
- * Director, Personnel Release, NHQ Abuja
- * Pioneer Commander, NNS JUBILEE, Ikot Abasi, Akwa Ibom State.
- * Member, Akwa Ibom State Security Committee
- * Pioneer, Chief Staff Officer, Central Naval Command
- * Director Administration, NHQ, Abuja
- * Navy Secretary (NAVSEC) NHQ Abuja
- * Flag Officer Commanding, Eastern Naval Command, Calabar.
- * Director, Defence Headquarters.
- * Chief Observer, Naval Exercise for Maritime Operation (EX NEMO), an Annual Multinational Maritime Exercise sponsored by France that involves member states of the Gulf of Guinea (GOG) to work closer towards finding sustainable solutions to their collective maritime security challenges.

EMPLOYMENT

1983- YYYY | Nigerian Navy

Joined as Sub Lieutenant and grew to the position of Flag Rank of Rear Admiral

- * Command and oversee large-scale naval operations, ensuring mission success and the safety of personnel and assets.
- * Develop and implement strategic plans and policies to enhance maritime security and operational readiness.
- * Lead and manage a diverse team of officers, enlisted personnel, and civilian staff, promoting a culture of excellence
- * Coordinate joint operations with allied naval forces, fostering international cooperation and strengthening alliances and professional development.
- * Oversee the maintenance and modernization of naval vessels, aircraft, and equipment to ensure peak operational capability.
- * Assisted in planning and executing naval operations, including humanitarian missions, disaster response, and combat operations.
- * Managed the daily operations of the command, ensuring efficient and effective execution of tasks and missions.
- * Coordinated with other branches of the military and government agencies to achieve strategic objectives.

COURSES

- * Sub Technical Course.
- * Junior Staff Course Jaji.
- * Long Course NNS QUORRA.
- * Principal Warfare Officers Course (PWO).
- * Intelligence Course (NAPS).
- * Military Observer UN Mission Angola (UNAVEM and MONUA).
- * Peacekeeping Mission in Angola (UNAVEM III and MONUA).
- * Senior Staff Course Jaji.
- * Higher Defence and Strategic Course, National Defence College,



EDUCATION & CERTIFICATION

Master's degree in security studies from the Bangladesh University of Professionals, Dhaka (BUP).

PERSONAL DETAILS

- * Date of Birth: 20th Jan 1959.
- * Hobbies: golfing, reading and listening to Christian praise and worship music.
- * Languages Known: English, Native dialect of Igbo, and Portuguese.



**Air Vice Marshal
Raimi Akanbi Salami (rtd).**
Director

Air Vice Marshal Raimi Akanbi SALAMI (rtd) is a well grounded retired military officer with specialty in Command, Control, Communication, Computer, Intelligence, Surveillance and Reconnaissance; Radar and Air Defence Systems deployment, integration and its efficient sustainability for effective operations. Salami has attended several courses both within and outside Nigeria. Salami served in the Nigerian Air Force and other institutions of the Armed Forces of Nigeria for about 35 years before retirement.

Salami, while in the Service of the Armed Forces of Nigeria, was variously responsible for the planning, deployment and sustainability of communications infrastructure, including airborne Intelligence, Surveillance and Reconnaissance (manned and unmanned platforms) systems, payloads and the streaming of relevant data from these payloads for collation, compilation and the analysis of this data for actionable intelligence towards efficient operations.

This also included the technical supervision and smooth running of the Strategic Operations Center at the Headquarters, Nigerian Air Force for effective command and control during operations.

Salami was also responsible for the smooth operations of ground based Radar and Air Defence Systems and all forms of technical communications for ground – to- ground/ ground-to- air, intra and intercity communications within Nigeria. The management of the manpower and the training required for effective running of the above named functions was also under his purview. He was also at a time responsible for the coordination of all cyber security efforts of the Armed Forces of Nigeria towards the efficient implementation of cyber war operational policies as well as formulation of strategies for such implementation.

Salami is married to Barr (Mrs) Amina Abdulsalami and blessed with 2 children Aliyu and Asma'U Abdulsalami. He likes reading, walking and watching documentaries.

Air Vice Marshal (AVM) Sule Lawal (retired) joined D7G in 2024 as Executive Director, Helicopters and Unmanned Aircraft Systems (UAS). He oversees and coordinates Programmes and Projects covering Helicopters, Fixed-wings and UAS procurement, overhaul as well as servicing.

He obtained BSc (Hons) Physics in 1990 and Masters of International Affairs and Strategic Studies in 2010 from Nigerian Defence Academy Kaduna. He also attended the prestigious National Institute for Policy and Strategic Studies Kuru- Jos in 2014.

AVM S Lawal served in the Nigerian Air Force (NAF) for over 32 years and retired in June 2023.

Lawal is an aircraft engineer and specialized in avionics. He type rated



**Air Vice Marshal
Sule Lawal (rtd)**
Director

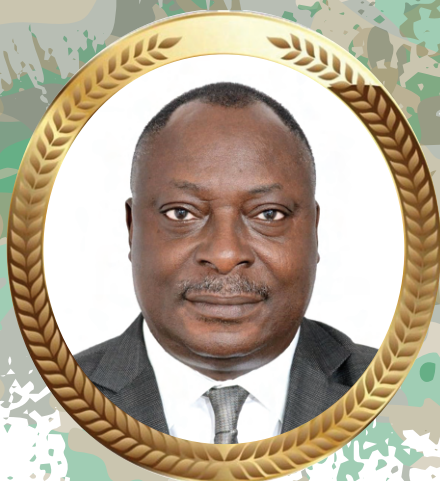


on Russian Mig 21 (Bis) and the Alpha Jet aircraft Avionics. While in the NAF, AVM S Lawal held several appointments including Manager Project and Planning at Aeronautical Engineering and Technical Services Limited Abuja where in 2014, he led the Team that overhauled and upgraded the NAF Mi-17 Helicopter.

From 2018 to 2021, AVM Lawal served as the Pioneer Foreign Liaison Officer (FLO) for A-29 Super Tucano Aircraft Programme at Wright Patterson Air Force Base Dayton – Ohio, USA and supervised the procurement, production and delivery to Nigeria of 12 x A-29 Super Tucano aircraft and associated weapons and equipment including the training of Pilots and Maintenance personnel.

In 2022, AVM Lawal was appointed as Director Launch Services and Space Operations at Defence Space Administration (DSA) Abuja and coordinated the launch of the first Nigerian CubeSat for DSA.

Furthermore, AVM S Lawal was a member of Nigerian delegation to the United Nations Headquarters New York (USA) on the 10th Review Conference on Non-Proliferation Treaty (NPT) of nuclear weapons in August 2022.

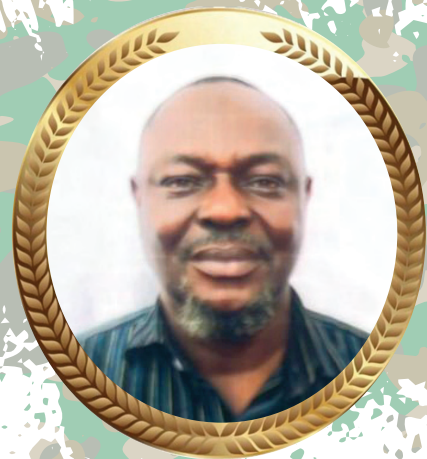


Mr. Blessing Alakpa Akpotu (rtd)
Director

Mr Blessing Alakpa Akpotu, fdc, MNIM. Is a retired Director of Joint Services Department of the Ministry of Defence (4th May 2025). He was born 4th May 1965. He has a Bachelor of Arts (B.A. Honours) degree (1990) and a Master in Business Administration (MBA) degree (2017). He is a fellow of the National Defence College and a member of the Nigerian Institute of Management. Prior to his retirement, he held several administrative positions at the Ministry of Defence, such as Assistant Director, Navy Logistics. He also held the position of Deputy Director, Parastatals and Special Services Division of Joint Services Department. He also held the position of Deputy Director, Planning and Research at the General Services Department in the Office of the Secretary to the Government of the Federation (OSGF). He has attended several courses at the Ministry of Defence, among which includes the Civil-Military Relations Course organised by the United States DAI in 2008. He is currently the Special Adviser to CEO, DICOND7G.

Lasbery was born on 2/6/72 to Mr & Mrs Onyenuforo of Nwangele Local Government Area of Imo state, Nigeria. He attended Community Primary School, Amaigbo from 1978 - 1993, Secondary School at King Jaja High School, Amaigbo from 1983 - 1988. Lasbery then attended Federal School of Arts and Science, Ogbor Hill, Aba from 1991 - 1993. He then proceeded to the University of Ouagadougou, Burkina Faso from 1997 - 2001 where he bagged a Diploma in English Language.

Lasbery is very good at organising administrative matters and has a high competence in multi tasking to achieve his desired goals. He is happily married and blessed with 2 children. His hobbies include playing soccer, playing volley ball, swimming and travelling.



Lasbery Chidozie Onyenuforo
Chief of Staff





Mr. KARIM ALIBAY
Special Adviser to the CEO

CAREER PRECIS

- Committed to entice new challenges, taming a passion to strive for excellence by gathering all relevant information and understand fully any objectives and churning out some path breaking results has been the trademark of my profile.
- To be engaged in commercial leadership and to develop appropriate solution to problems, using new and existing technologies, through innovation, creativity and change.
- Personal Credo: Applying "French Flag Moto - Liberte" in order not to lose my liberty of judgement, Honest and Loyal because it always pay.

- Professional Forte: Goal driven, balanced individual and team player with good judgment and an eye for details, clear sighted and commercially aware.

ACADEMIC EXCELLENCE

- C.E.P.E (Certificat D'Etudes Primaires Elementaires) 1963
- B.E.P.C (Brevet D'Etudes Du Premier Cycle) 1968
- Baccalaureat Serie D (Scientifique) 1973
- Iere Annee de PCEM1 (Premier Cycle D'Etudes Medicales) Hopital Xavier Bichat Paris 1974
- Iere Annee de Capacite en Droit- Universite D'Assas Paris 1975

KEY CAREER ACCOMPLISHMENTS

40 years of managerial experience in Sales & Marketing, Business Development, Key Account Management, Channel Management and Business Analysis

- Highly skilled in import-export regulations and border trade business in West Africa. Very conversant with The International Chamber Of Commerce Incoterms Vis a Vis banking institutions.
- Talented in implementing promotional activities in coordination with external agencies to spearhead product launch, brand promotion and event management activities.
- Dealt with various West African ethnical clientele, ventured to new geographies i.e. TOGO, BENIN REPUBLIC, NIGERIA and sub- region countrits.
- Proficient at analyzing latest market trends to provide critical inputs and implementing them to ensure targets are achieved
- An effective communicator with excellent relationship building, analytical and interpersonal skills.

DIRECTOR (OWNER) 2000-PRESENT

- Project Management | Contract Negotiations | Client/Channel Rapport | Compliance Document Coordination | Team Motivation and Multi unit operation | Strategic planning and Execution | Business Development & Marketing | Vendor Management | Property Management

KEY FUNCTIONALITIES

- To Plan, develop and implement strategies to increase revenues and profits.
- To Advance and continuously improve SERPACOM's position in the marketplace.
- To Negotiate and implement Co-packing agreement with Reckitt Benckiser for Robin Starch and Blue.
- To facilitate the signing of a GSPA (Gas Sales and Purchase Agreement) between Nigeria and Togo and Benin Republic with OANDO Gas Power.
- To Initiate and obtain a bank guarantee from FAGACE (African Fund Guarantee) and BOAD (West African Development Bank) for a 100 Million \$ ENA (Ethanol) project in Benin Republic with NV Group India.



- Manage operations to ensure labour efficiency, quality, service and customer-client relationship.
- Achieve/Exceed budget plans.
- Monitor challenges and keep the board apprised of all business activities, performance, challenges and recommended course of action.
- Review activity reports and financial statements to determine progress and status in attaining objectives and revise objectives and plans in accordance with current market conditions.
- Identify and leverage sales opportunities.
- Attract, develop and retain top talent.
- Build and solidify an organizational culture in which passion for service and continuous improvement is characteristics.
- To Build and maintain client relationship at top level.
- Maintain sustainable cost reduction efforts and workforce stability.
- Incorporate logistics and workflow diagnostics to drive efficiencies, accuracy, quality and satisfaction.
- To manage and negotiating contracts and appointing/maintaining vendors.
- To Liaison with the government and private bodies for various departmental compliances and ensure smooth running of the services.
- Directly managed Multiple Business Units.



Commodore MA IBRAHIM
Deputy Director Shipyard

Commodore Mohammed Adamu Ibrahim was commissioned as an officer in the Nigerian Navy after completing cadet and Midshipman training in 1990. During his service years he served on board ships and shore establishment. He also underwent various trainings that saw him rise in rank. He is an Above Water Warfare specialist officer with an additional sub specialisation as Intelligence Officer. Some of the appointments he held include Watch Keeping Officer on board various ships, Barracks and Command Intelligence Officer, Deputy Director Search and Rescue at Naval Headquarters. Others are Maritime Component Commander Op LAFIYA DOLE Fleet Operation Officer at Central Naval Command and Deputy Director Operation Defence Intelligence Agency. Ibrahim is married to Mrs Fatima Tom Ibrahim and blessed with 5 children 3 boys and 2 girls. His hobbies are watching nature and travelling. Ibrahim is a Fellow of Institute of Disaster Management and Institute of Entrepreneur.

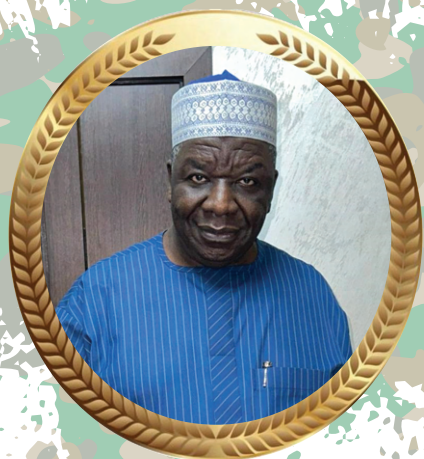
Major General Julius Olusola Oni (Rtd) was born on 11 December 1965 at Afijio Local Government Area of Oyo State. Olusola was admitted into the Nigerian Defence Academy (NDA) on 27 September 1985 as a member of Regular Course 37 and was commissioned Second Lieutenant into the Nigerian Army Ordnance Corps on 22 September 1990. Oni holds a Bachelor of Science Degree (Honours) in Chemistry and a Masters Degree in Strategic Studies from the University of Ibadan. He also holds a Masters of Arts in International Affairs and Diplomacy and Masters of Arts Law Enforcement and Criminal Justice both from the Ahmadu Bello University Zaria, Kaduna State. Additionally, he holds a Masters of Arts Degree in Peace Studies and Conflict Resolution National Open University of Nigeria.

Maj Gen Oni was privileged to have served in various capacities in the



Major General JO Oni (rtd)
Director of Procurement

Nigerian Army. He was Directing Staff at the Prestigious Armed Forces Command and Staff College from 2007 - 2009 and Commander 82 Division Ordnance Services from 2012 - 2013. He was also the Commander 2 Division Ordnance Services in 2013, Deputy Commandant Nigerian Army College of Logistics Moloney Lagos from 2014 - 2015 and Acting Commandant Nigerian Army College of Logistics Moloney Lagos from 2015 - 2016. He was appointed the Chief of Staff Headquarters Nigerian Army Ordnance Corps - Lagos, Nigeria from 2016 - 2017, Director Armed Forces Simulation Center from 2017 - 2018 and Director Personnel Nigerian Army in 2019. He was appointed Director of Procurement Nigerian Defense Headquarters from 2019 - 2021 and Chief of Logistics, Nigerian Defense from 2021 - 2023 from where he disengaged from the service in October 2023. Maj Gen Oni attended the United Nations Logistics Course in Cairo - Sep 1985 and 17 Courses of the United Nations UNTAR. He is a Fellow Institute of Management of Nigeria, Fellow Chartered Institute of Purchasing and Supply Management of Nigeria and Fellow Nigerian Army Resource Centre Abuja. He is happily married and loves walking and listening to good music. I specialise in both Ammunition and Armament (Weapons), I did the 2 courses Separately And worked in both areas while in Service.



Rear Admiral Abdu Shettima (rtd)
Director Shipyard

Rear Admiral Abdu Shettima (rtd) was born on 22nd March 1959 and hails from Borno State. He holds a Bachelor of Science and Masters of Science degrees in Architecture from Ahmadu Bello University, Zaria from 1977 to 1982. He holds over 35 years' experience in project execution and logistics management. He was an indefatigable military officer with distinctive career progression who recently retired from the service of the Armed Forces of the Federal Republic of Nigeria as a Naval Officer with a range of medals, awards and honours.

In the course of his career in the Nigerian Navy, Rear Admiral Shettima (rtd) attended several courses where he distinguished himself. He was at the Armed Forces Command and Staff College Jaji-Kaduna from 1995 to 1996. His commitment to duty and prudent mindedness paved the way for him to be nominated to attend Inventory Control and Effective Management of

Engineering Spares Warehouse Course in 2002, He later attended the South African National Defence College for Executive National Security Programme in 2007. Before his retirement from the Nigerian Navy, Rear Admiral Shettima (rtd) was appointed the Director of Projects at the Naval Headquarters, Abuja in 2003 where he later became the Chief of Logistics from 2008. Thereafter he was appointed the Director Underway Replenishment Group at the Headquarters Naval Logistics Command, Oghara in Delta State in 2010. He later became the Director Development at the Defence Headquarters Abuja in 2012 before taking command of the Nigerian Navy Logistics Command as the Flag Officer Commanding in 2013.

Rear Admiral Shettima (rtd) was later appointed the Managing Director Chief Executive Officer of Navy Hotels and Suites and acting Group Managing Director, Navy Holdings Ltd, an appointment he held until his retirement from the Nigerian Navy in 2015. Currently, he is a Director/Chairman in NUE Offshore Resources Ltd, a private maritime logistics support company(PMLSC). He also serves as Coordinator/Consultant in Sterling Oil Exploration & Energy Production Company Ltd. A man of distinction, Rear Admiral Shettima (rtd) is a Fellow of the African Centre for Supply Chain. He participated in the implementation of Due Process Policy in the Public Sector Contract and was a member of the Public Private Partnership Collaboration in the improvement of the Higher Management of Defence Sector. Some Awards to the honour of the retired senior officer are the Forces Service Star, Meritorious Service Star and Distinguished Service Star.

Rear Admiral Shettima (rtd) is married and blessed with 2 children.



PROFILE

Senior finance, audit, and compliance professional with 30+ years' experience supporting defence institutions, federal ministries, and donor-funded programmes. Specialist in defence budgeting, public financial management, audit oversight, procurement controls, and governance in high-risk and complex environments.

CORE EXPERTISE

Defence & Security Sector Finance • Defence Budgeting & Audit Public Financial Management Audit, Risk & Compliance • Donor & Multilateral Programme Finance IPSAS & Government Accounting Standards

PROFESSIONAL EXPERIENCE

Director, Finance & Accounts – Ministry of Defence (2021–2024)
Director, Finance & Accounts – Ministry of Niger Delta Affairs (2020–2021)
Director, Internal Audit – Office of the SGF (2019–2020)
Deputy Director (SIP) – Ministry of Budget & National Planning (2017–2019)
Project Accountant – NASSCO (World Bank Programme) (2015–2017)

EDUCATION

Phd Strategic Leadership and Management—National Institute of Legislative studies
MBA – Obafemi Awolowo University
B.Sc. Accountancy – Obafemi Awolowo University

PROFESSIONAL AFFILIATIONS

Fellow, ICAN (FCA) | Fellow, CITN (FCIT) | Fellow, IPEPM (FCPE)
ICAN Practice Licence

INTERNATIONAL EXPOSURE

World Bank (USA) • Strategic Finance Workshops (UAE, Ghana)
National War College – Civil-Military Leadership



ADEMOLA WASIU ALLI Phd (FCA)
Director of Finance



Alhaji Bukar
Account Department

OBJECTIVE

Requisite leadership and team building skills, Commitment, drive for diversity, integrity, resilience, responsible, proactive and innovative, Stresstolerance, flexible, networking, negotiation skills, organizational skills, outgoing and personality, excellent communication and presentation skills, good strategic, analytical and conceptual thinking.

EDUCATIONAL INSTITUTIONS ATTENDED WITH DATES:

YerwaHausari Primary School, Maiduguri 1971 - 1978
Govt. Technical School, Konduga 1979- 1983
Institute of Management Studies, Potiskum 1984 - 1986
Kaduna Polytechnic, Kaduna 1988-1990
University of Maiduguri, Maiduguri 1997 - 1998



Qualifications with Dates

First School leaving Certificate (FSLC) 1978
General Certificate in Education (O/Level) 1983
Certificate in Accounts in Audit 1986
National Diploma in Accounts & Audit 1990
Bachelor of Science (BSc.) Economics 1998
NYSC Exemption Certificate 2000

Membership of Professional Bodies/Associations

Member, Association of National Accountants of Nigeria (ANAN)
Associate, Chartered Institute of Taxation of Nigeria (CITN)
Member, Institute of Certified Public Accountants of Nigeria (ICPA N)
Member, Nigeria Institute of Management (NIM)
Member, Institute of Chartered Economics of Nigeria (ICEN)

Professional Qualifications with dates

Certified National Accountant (CNA)
Associate, CITN (ACIT) 2016
Certified Public Accountant (CPA)
Member, Institute of Management (NIM)
Chartered Economics (ACEN)

RECORD OF EMPLOYMENT AND POSITIONS HELD

- Barna Local Government Area, Inspection Audit Department. Executive officer 1987- 1988
- Potiskum LGA, Inspection Audit Department. Executive officer 1991 - 1992
- Potiskum LGA, Expenditure Control Unit. Executive officer (Audit) 1992 - 1997
- Government House, Maiduguri. Chief Internal Auditor 1997-2001
- Ministry of Animal & Forest Resources, Maiduguri. Chief Accountant 2001 - 2003
- Maiduguri International Hotel, Maiduguri. Financial Controller 2003 -2009
- Ministry of Housing and Rural Electrification, Maiduguri. Chief Accountant 2009 -2010
- Universal Basic Education Board, Borno State. Director, Finance & Account 2010-2011
- Office of Auditor-General for the Federation, Abuja. Chief Auditor (2nd in-charge) Federal Audit Unit, Ministry of Defence. 2011 - 2012
- Office of the Auditor-General for the Federation. Assistant Director(Head, Resident Federal Audit), Federal Civil Service Commission 2013 -2014
- Office of the Auditor-General for the Federation. Deputy Director (Head, Resident Federal Audit) Office of the Sec. to the Govt. of the Federation.2017- Dec.2021
- Office of the Auditor-General for the Federation. Director Audit (Head, Resident Federal Audit) Office of the Sec. to the Govt. of the Federation. Jan. 2022- Aug.2022



FEDERAL REPUBLIC OF NIGERIA

CERTIFICATE OF INCORPORATION
OF A
PRIVATE COMPANY LIMITED BY SHARES

COMPANY REGISTRATION NO. 7884965

The Registrar - General of Corporate Affairs Commission
hereby certifies that

DICON/D7G NIGERIA LTD

is this day incorporated under the
COMPANIES AND ALLIED MATTERS ACT 2020

as a private company limited by shares

Given under my hand at Abuja this 2nd day of September, 2024



Hussaini Ishaq Magaji SAN
Registrar - General



Sustaining Global
Defence Productions



Total Number of Board Members = 19

Composition of Board

1- Chief of Defence Staff (CDS)	Chairman
2- Permanent Secretary, MOD	Member
3- Representative of ONSA	Member
4- Director General DICON	Member
5- Representative of DICON	Member
6- Representative of DICON	Member
7- Chief Executive Officer (CEO) D7G	Member
8- Director Production D7G	Member
9- Director Land Systems D7G	Member
10- Director Maritime Systems D7G	Member
11- Director Air System D7G	Member
12- Director Procurement D7G	Member
13- Director Admin & Logistics D7G	Member
14- Director marketing D7G	Member
15- Director Legal D7G	Member
16- Director Finance D7G	Member
17- Director Shipyard Operation D7G	Member
18- Assistant Director Admin & Logistics D7G	Member
19- Representative D7G	Member



About us

D7G is an indigenous Defence related company Limited by shares with expertise in reverse engineering, manufacturing and supply of arms, Ammunitions, armoured vehicles, radars, air defense systems, night vision goggles, binoculars, thermal imagers, convoy jammers, arms CKD



About us

and SKD, Grenade launchers and heavy machine guns, stabilized advanced remote controlled platforms, ammunition links, and other defence related equipment needed by the Nigerian Armed Forces and civil security agencies. The organization is registered with CAC, NSITF, PENCOT, ITF, TAX and BPP and has a seasoned and experienced board of directors and management team. As a company D7G limited is an efficient and correct partner in executing contracts (Government to Government) (G to G), as well as planning and performing short and long term planned deliveries.



About us

MEMBERSHIP OF THE DEFENCE INDUSTRIES ASSOCIATION OF NIGERIA (DIAN)

The DIAN is an umbrella body of all the defence related industries in Nigeria.

The association is duly registered with the Corporate Affairs Commission (CAC).

The aim of DIAN is to provide a platform for complementing members efforts bearing in mind the basic economic principle

of comparative advantage. Members gather together from time to time with the mindset of complementing one another's effort. The establishment

and activities of DIAN is fully captured in the new DICON -



*Sustaining Global
Defence Productions*



About us

**ACT, 2023, signed into law on the
23rd November 2023,
by the President and Commander -in-Chief
of the Armed Forces of
The Federal Republic of Nigeria
Bola Ahmed Tinubu. GCFR.**

**This Act strengthens the legal and
institutional framework for the operation,
maintenance and control of subsidiaries
and ordnance factories for the manufacture,
storage and disposal of ordnance
and ancillary stores and materiel
and regulate in local production of weapons
and other equipment to meet the
requirement of the Nigerian Armed Forces
and other security agencies.
D7G is a member of DIAN.**





Our Vision

To engage in the manufacture, supply and distribution of finished defence products in accordance with the needs of The Nigerian Armed Forces and other Security Agencies.

Our Mission

To increase self dependency of Nigeria in the Defence sector by creating a liability joint venture with DICON.



Objectives

1

To consistently supply all types of Arms,ammunition, vehicles, drones, vessels and electronic warfare equipment to all the services.

2

Import Defence stocks to be stored in specific services warehouses and under the close patronage of the Ministry of Defence.

3

Enhance military trade between Nigeria and friendly African countries.

4

Engage part of its profits in Corporate Social Responsibilities to the benefits of Nigerian society mainly in the Health and Education Sectors.

5

Install 5 high capacity (300 Million rounds) new lines of production of small and medium arms ammunition.

6

Install a private power station, and optimise the perimeter and inside security of the DICON complex.



Partnership with DICON

D7G has a Joint Venture Company (DICON-D7G NIGERIA LIMITED) of Military hardware and equipment in Nigeria.

The agreement includes:

a

Manufacture, supply and distribution of finished Defence Products in accordance with the needs of the Nigerian Armed Forces and other Security Agencies.

b

Business Conceptualization, designing, consulting, inventing, manufacture, assembly, marketing, sale, exportation, distributing of Military Industrial products, such as arms, ammunition, armoured vehicles, Radars, Night Vision Goggles, Binoculars, Thermal imagers, Convoy Jammers, CKDs and SKDs, Grenade launchers and heavy Machine Weapons, Stabilized Advance Remote Controlled platforms, GPMG links and other Ancillary products and services.







Sustaining Global
Defence Productions





MR OSMAN CHENNAR
CHIEF EXECUTIVE OFFICER CEO,
D7G NIGERIA LIMITED.

★
**DEFENCE MAN
OF THE YEAR**





Sustaining Global
Defence Productions







Sustaining Global
Defence Productions







Sustaining Global
Defence Productions







Sustaining Global
Defence Productions





*Sustaining Global
Defence Productions*





Sustaining Global
Defence Productions



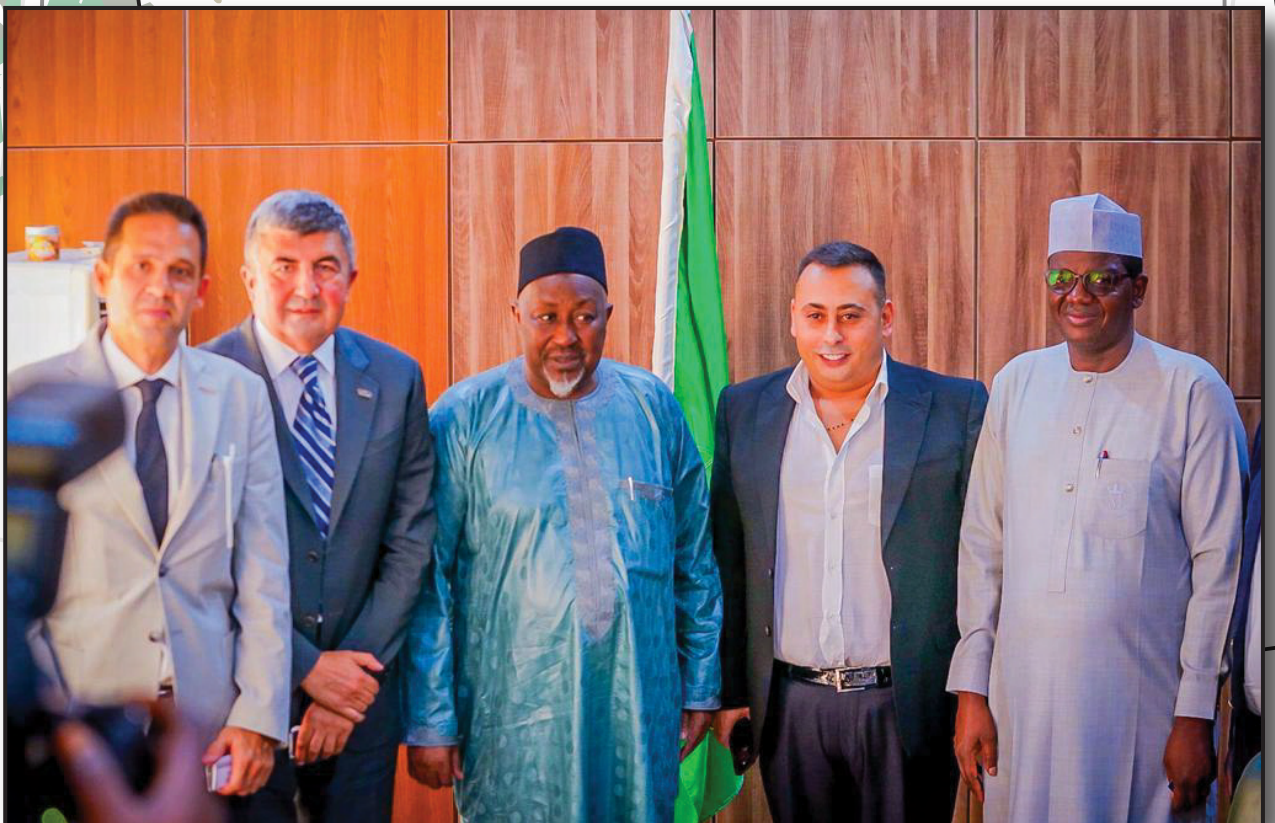




Sustaining Global
Defence Productions







Sustaining Global
Defence Productions



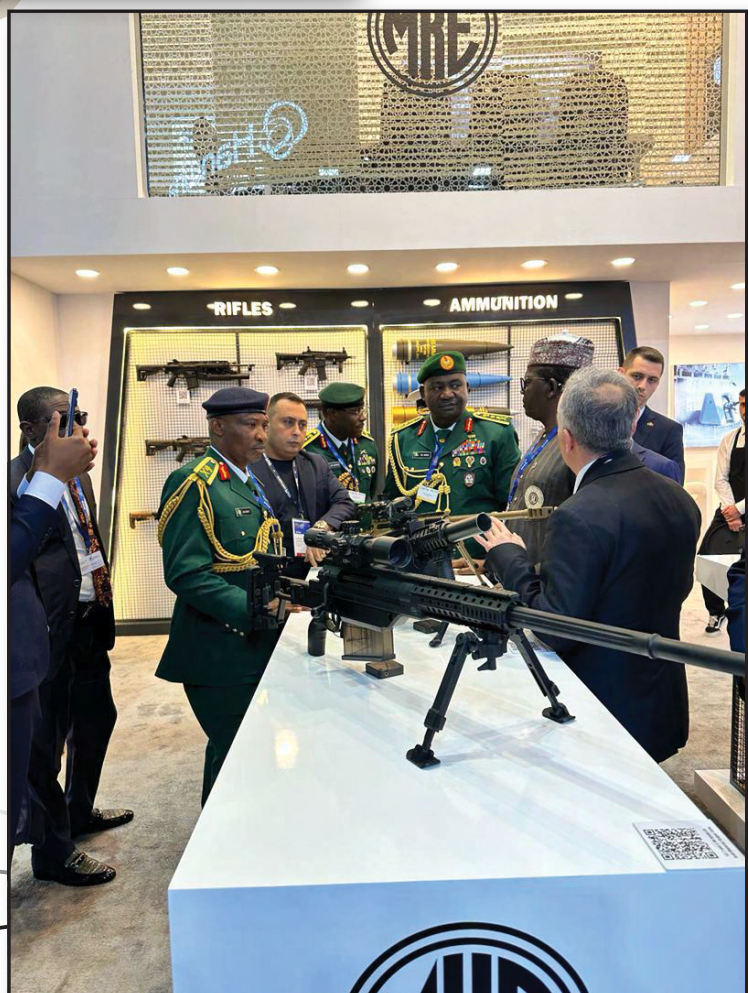






Sustaining Global
Defence Productions



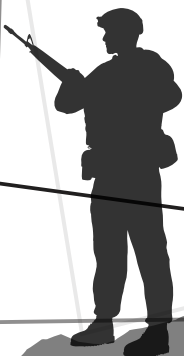






Sustaining Global
Defence Productions

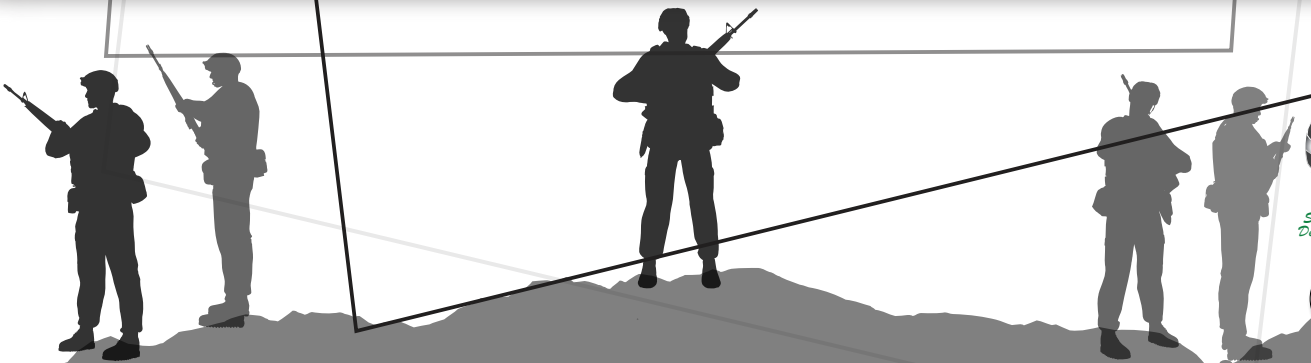






*Sustaining Global
Defence Productions*





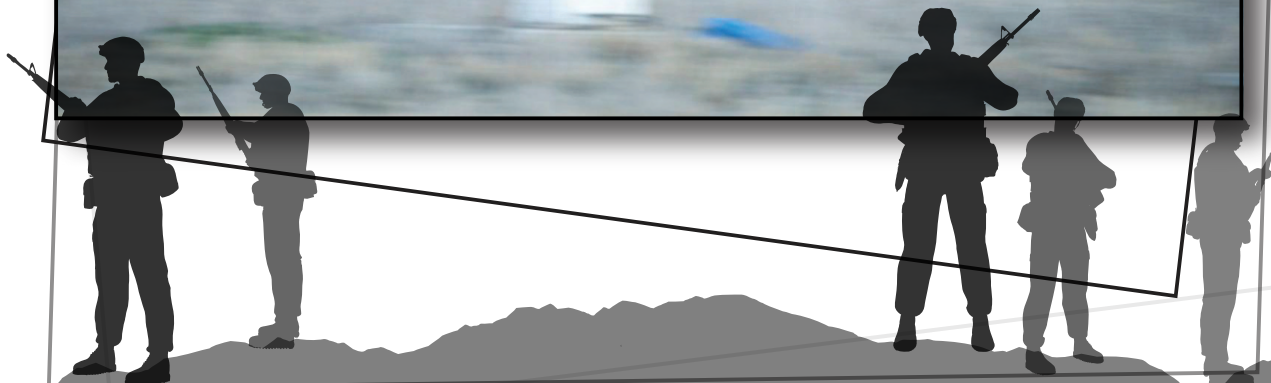
*Sustaining Global
Defence Productions*





Sustaining Global
Defence Productions



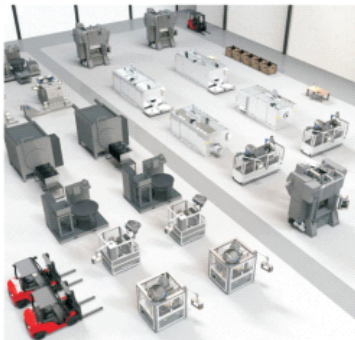




Area of specialization / product catalog

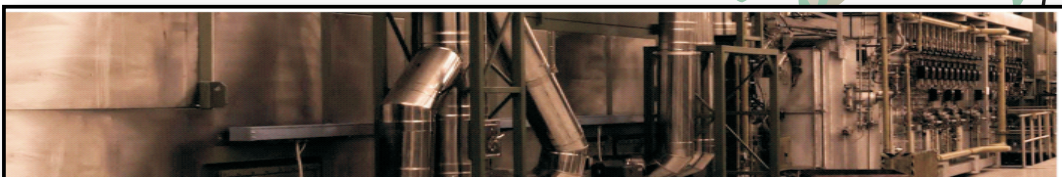
Establishment of ammunition Manufacturing lines

Establishment of Ammunition Manufacturing Lines

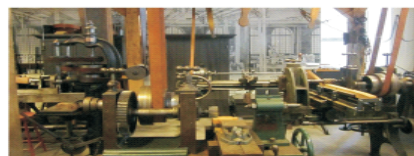


- Line of Production of: 5.65 x 45 Blank & Live
- Line of Production of: 7.62 x 39 Blank & Live
- Line of Production of: 7.62 x 51 Blank & Live
- Line of Production of: 7.62 x 54 Blank & Live
- Line of Production of: 12.7 x 108 Blank & Live

Production Capacity of
300,000,000 Rounds a Year / 3 Shifts



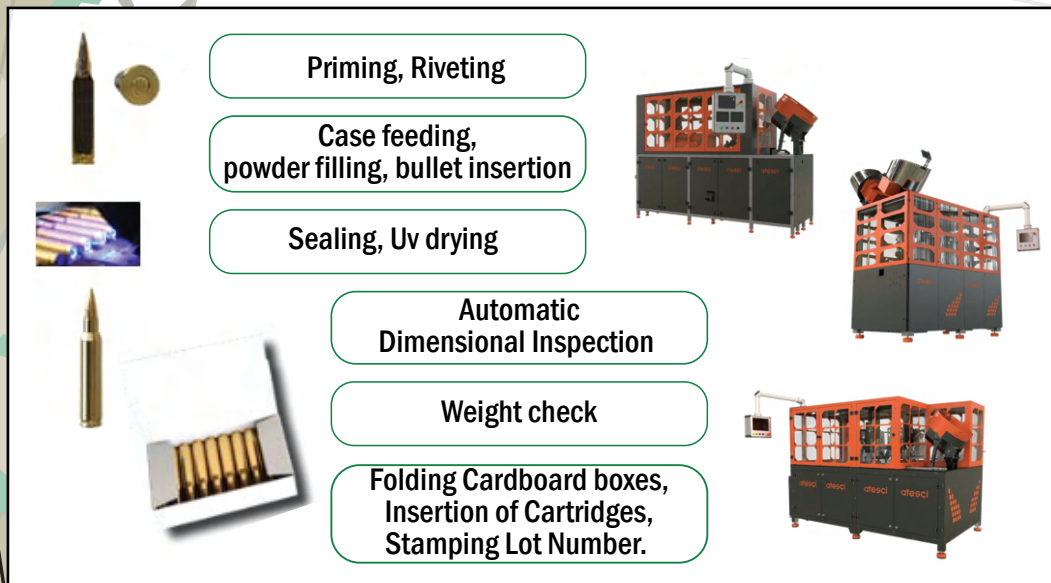
Production and Servicing of Rifles



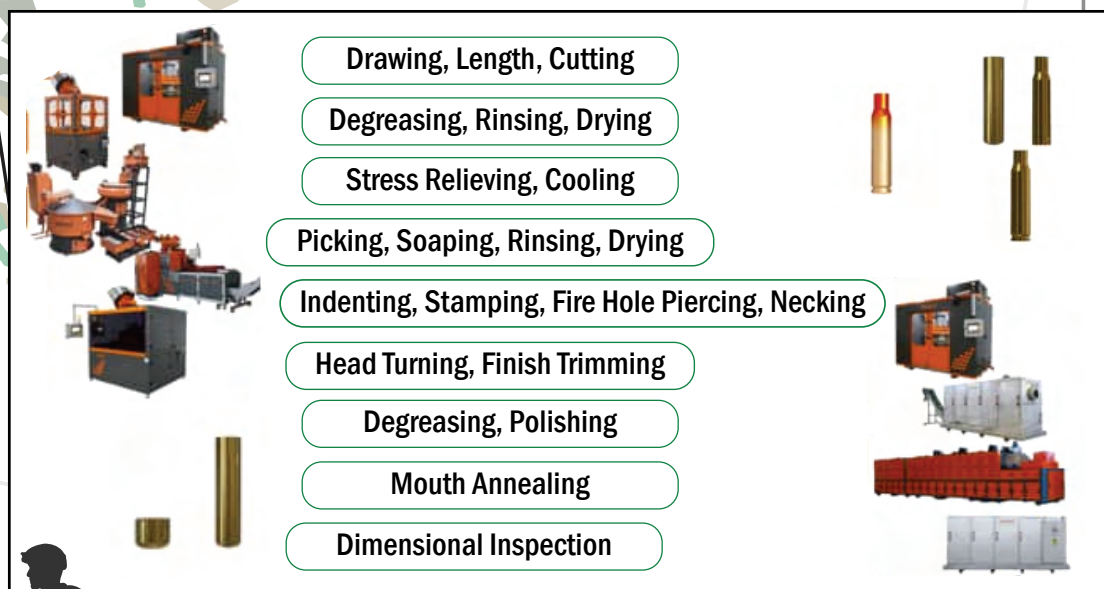
Sustaining Global
Defence Productions



Cartridge production



Case production



Sustaining Global
Defence Productions



Establishment of UAV Manufacturing Lines

JAV's (Full Technical Offer Attached)
Vibria 4 Armed: **6 Pieces**



Vibria 2 Surveillance: **12 Pieces**



Establishment of Arms Manufacturing Lines



5.56 x 45 M4 USA Special Forces Assault Rifle: **10,000 pieces**

PKM 7.62 x 54 GPMG: **1000 pieces**

ATGL 40mm: **100 pieces**

Mortar 81mm: **100 pieces**

Aircraft Rocket and Bombs



AIRCRAFT ROCKET 57 mm



DESCRIPTION / MODEL	BR-1-57	BR-2-57	BR-20-57
LENGTH WITH FUZE (mm)	882	824	1200
MASS (g)	3.8	3.64	4.5
EXPLOSIVE CHARGE MASS (g)	285	290	320
MAXIMUM SPEED	673 to 617 m/s	563 to 620 m/s	/
1 KM FLYING TIME	1.89 to 2.19 s	2.46 to 2.17 s	/
PRESSURE IN THE ROCKET CHAMBER	380 kg/cm ²	375 kg/cm ²	/
FUZE TYPE	UTI-1	UTI-2	UTI-2
ROCKET PACKING	BOXES IN CASE	SHELLS IN CARDBOARD	GROSS MASS
WOODEN CASE	2	1	37 kg

AIR BOMBS - FAB



DESCRIPTION / MODEL	FAB-100 M80 HE	FAB-100 M80 HE RETARDED	FAB-250 M79 HE	RAB-250 M91
LENGTH WITH FUZE (mm)	1490	1617	2015	2085
MASS WITHOUT FUZE (kg)	117	128	240	252
EXPLOSIVE CHARGE MASS (g)	39	39	105	70
DIAMETER (mm)	230	230	325	320
HOOK SPACING (mm)	255 / 355.6	255 / 355.6	255 / 355.6	355.6 / 250
TEMPERATURE ENVIRONMENT	-40 to +50C	-40 to +50C	-40 to +50C	-40 to +60C
FUZE TYPE	AUV-E / AUFK	AUFK	AUV-E / AUFK	UPB M91
BOMBS PACKING	BOMBS IN CRATE	FINS		
CRATE	3	12		

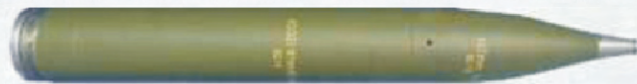
AIRCRAFT BOMBS

Unguided Rockets



M06 - EXTENDED RANGE UNGUIDED ARTILLERY ROCKET

107 mm



DESCRIPTION / MODEL

CALIBER (mm)	107
LENGTH WITH FUZE (mm)	825
MASS WITH FUZE (kg)	17.6
WARHEAD EXPLOSIVE WEIGHT (kg)	1.25
MAXIMUM RANGE (km)	11.5
OPERATING TEMPERATURE RANGE	-32°C to +60°C
FUZE TYPE	UTI M84

ROCKET PACKING

WOODEN CASE

BOXES IN CASE

2

GROSS MASS

49 kg



Anti-Aircraft Ammunition



57 mm x 348 for SELF-PROPELLED AA GUN 57 mm S/68 and S/60

NATO DESIGNATION

HE

HEI

HE-T

HEI-T

AP-T

TP-T

TP

57 mm

WEIGHT (g)

PROJECTILE (g)

2850

2850

2850

2850

2850

2850

2850

PROPELLANT (g)

1180

1180

1180

1180

1180

1180

1180

EXPLOSIVE (g)

153

153

153

none

none

none

none

COMPLETE ROUND (g)

6350

6350

6350

6350

6350

6350

6350

EXPLOSIVE TYPE

RDX

RDX+AL

RDX

RDX+AL

none

none

none

LENGTH (COMPLETE ROUND)

max 536.61

max 536.61

max 536.61

max 536.61

max 536.61

max 536.61

max 536.61

MUZZLE VELOCITY (m/s)

1000

1000

1000

1000

1000

1000

1000

SELF-DESTRUCTION TIME (s)

13-17

13-17

13-17

13-17

none

none

none

TRACER BURNING TIME (s)

none

none

10

10

10

10

none

PACKING

ROUNDS IN CASE

DIMENSIONS

GROSS MASS

WOODEN CASE

20

650 x 393 x 363 mm

65 kg

20 mm x 110 for AA GUN M55, HS 404 and HS 804 "HISPANO"

NATO DESIGNATION

HE

HEI

HE-T

HEI-T

API-T

API

AP-T

TP-T

TP

BLANK

20 mm

WEIGHT (g)

PROJECTILE (g)

122

122

122

122

142

142

142

122

122

min 70

PROPELLANT (g)

29

29

29

29

32

32

32

29

29

29

EXPLOSIVE (g)

12.1

12.1

6.1

6.1

none

none

none

none

none

none

COMPLETE ROUND (g)

246

246

246

246

265

265

265

246

246

195

EXPLOSIVE TYPE

RDX

RDX+AL

RDX

RDX+AL

none

none

none

none

none

none

LENGTH (COMPLETE ROUND)

184

184

184

184

182

182

182

184

184

184

MUZZLE VELOCITY (m/s)

845

845

845

845

844

844

844

845

845

none

SELF-DESTRUCTION TIME (s)

4.5-8

4.5-8

4.5-8

4.5-8

none

none

none

none

none

none

TRACER BURNING TIME (s)

/

/

3.5

3.5

3.5

3.5

/

3.5

/

/

PACKING

ROUNDS IN CASE

DIMENSIONS

GROSS MASS

WOODEN CASE

100

660 x 232 x 200 mm

34 kg









Sustaining Global
Defence Productions









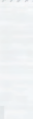



Anti-Aircraft Ammunition



57 mm x 348 for SELF-PROPELLED AA GUN 57 mm S/68 and S/60

NATO DESIGNATION	HE	HEI	HE-T	HEI-T	AP-T	TP-T	TP
57 mm							
WEIGHT (g)							
PROJECTILE (g)	2850	2850	2850	2850	2850	2850	2850
PROPELLANT (g)	1180	1180	1180	1180	1180	1180	1180
EXPLOSIVE (g)	153	153	153	153	none	none	none
COMPLETE ROUND (g)	6350	6350	6350	6350	6350	6350	6350
EXPLOSIVE TYPE	RDX	RDX+AL	RDX	RDX+AL	none	none	none
LENGTH (COMPLETE ROUND)	max 536.61	max 536.61	max 536.61	max 536.61	max 536.61	max 536.61	max 536.61
MUZZLE VELOCITY (m/s)	1000	1000	1000	1000	1000	1000	1000
SELF-DESTRUCTION TIME (s)	13-17	13-17	13-17	13-17	none	none	none
TRACER BURNING TIME (s)	none	none	10	10	10	10	none
PACKING	ROUNDS IN CASE		DIMENSIONS		GROSS MASS		
WOODEN CASE	20		650 x 393 x 363 mm		65 kg		

20 mm x 110 for AA GUN M55, HS 404 and HS 804 "HISPANO"

NATO DESIGNATION	HE	HEI	HE-T	HEI-T	API-T	API	AP-T	TP-T	TP	BLANK
20 mm										
WEIGHT (g)										
PROJECTILE (g)	122	122	122	122	142	142	142	122	122	min 70
PROPELLANT (g)	29	29	29	29	32	32	32	29	29	29
EXPLOSIVE (g)	12.1	12.1	6.1	6.1	none	none	none	none	none	none
COMPLETE ROUND (g)	246	246	246	246	265	265	265	246	246	195
EXPLOSIVE TYPE	RDX	RDX+AL	RDX	RDX+AL	none	none	none	none	none	none
LENGTH (COMPLETE ROUND)	184	184	184	184	182	182	182	184	184	184
MUZZLE VELOCITY (m/s)	845	845	845	845	844	844	844	845	845	none
SELF-DESTRUCTION TIME (s)	4.5-8	4.5-8	4.5-8	4.5-8	none	none	none	none	none	none
TRACER BURNING TIME (s)	/	/	3.5	3.5	3.5	3.5	/	3.5	/	/
PACKING	ROUNDS IN CASE		DIMENSIONS		GROSS MASS					
WOODEN CASE	100		660 x 232 x 200 mm		34 kg					

Rocket Weapon



90 mm HAND ROCKET LAUNCHER - RBR M79



SPECIFICATION

TYPE	HEAT
LENGTH (mm)	672
MASS (g)	3630
PENETRATION (mm)	> 450 (on homogeneous armour plate)
MUZZLE VELOCITY (m/s)	245
EFFECTIVE RANGE (m)	350
MAXIMUM RANGE (m)	1960
PACKAGE (UNITS)	3
PACKAGE WEIGHT (kg)	25.3

FUZE Impact, superquick, piezoelectric with self destruction, (UT PE M80 SP)

120 mm LIGHT ANTITANK WEAPON - RBR M90



SPECIFICATION

TYPE	HEAT
LENGTH (mm)	1350
MASS (kg)	13
PENETRATION (mm)	> 800 (on homogeneous armour plate)
MUZZLE VELOCITY (m/s)	205
EFFECTIVE RANGE (m)	250
MAXIMUM RANGE (m)	1960
PACKAGE (UNITS)	2
PACKAGE WEIGHT (kg)	56

FUZE Impact, superquick, piezoelectric with self destruction, (UT PE M80 SP)



Sustaining Global Defence Productions



Artillery Shells



ROUND 100 mm FIXED for GUN 100 mm on TANK T55, SPG 100 mm and COAST GUN 100 mm M87



100 mm

NATO DESIGNATION	HE	HE	HE	HEAT-T
DESCRIPTION	SHELL M63	SHELL M63 P1	SHELL M63 P2	SHELL M69
PROJECTILE WEIGHT (kg)	15.6	15.6	15.6	12.2
EXPLOSIVE (kg)	1.41	1.48	1.58	1
CARTRIDGE CASE (kg)	695	695	695	695
EXPLOSIVE TYPE	TNT	TNT	RDX+AI	RDX
PROJECTILE LENGTH (mm)	492	492	492	638
MUZZLE VELOCITY (m/s)	900	900	900	900
MAXIMUM RANGE (m)	20618	20618	20618	3000 (combat range)
FUZE	UTIU M72 B1, UTIU M02, UTIU M03			UT - PE M69
PACKING	ROUNDS IN CASE			GROSS MASS
WOODEN CASE	2			21.8 kg

ROUND SEMI FIXED for HOWITZERS M56, M18, M2A1, M4 SEMI FIXED for HOWITZERS M56, M02



105 mm

NATO DESIGNATION	HE	SMOKE	HE ER
DESCRIPTION	SHELL M1A1	SHELL M60	SHELL M56
PROJECTILE WEIGHT (kg)	14.9	15	13
EXPLOSIVE (kg)	2.15	1.85	2.15
CARTRIDGE CASE (kg)	2.68	2.68	2.68
EXPLOSIVE TYPE	TNT	WP	TNT
PROJECTILE LENGTH (mm)	496	496	565
MUZZLE VELOCITY (m/s)	491	491	675
MAXIMUM RANGE (m)	11620	11620	14000
FUZE	UTIU M72 B1, UTIU M02, UTIU M03		UTIU M02, UTIU M03
PACKING	ROUNDS IN CASE		GROSS MASS
SHELL M1A1	2		16.8 kg
SHELL M60	WOODEN CASE		50 kg

Police Program





HAND GRANADE LUNCHER FLIP RBGP 38/1 mm M09-00; 38-55/1 mm M09-00; RBGP 40/1 mm M08-00



DESCRIPTION / MODEL	RBGR 38/6 MM M06
CALIBER	38 mm
TUBE	smooth
TUBE LENGTH	250 mm
CHARGE	6 shells
THE LENGTH OF THE DRUM	130 mm
RATE OF FIRE	10 shells / min.
TRIGGER MECHANISM	double action
WEIGHT WITHOUT AMMUNITION	6.5 kg
HEIGHT	< 335mm
WIDTH	<160mm
AMMUNITION	38 mm
GUNPOINT DEVICES	mechanical
GUNPOINT PARTITION	50 - 150 m



Sustaining Global
Defence Productions



Explosives



PENTHRITE (PETN)



Penthrite (PETN), one of the most powerful and most brisant explosive, is used in the manufacture of detonating fuse, detonators, industrial explosive slurries and plastic explosives. If phlegmatized with wax, it is used in various types of ammunition.

TRINITROTOLUENE (TNT)



Military grade TNT is widely used as a bursting charge for high explosive shells, aircraft bombs, grenades, naval mines and etc. It is also used in boosters, detonators, demolition charges and as an ingredient in slurries and for mining industries.

ANFO EXPLOSIVE



ANFO has a wide variety of applications in dry hole blasting conditions. It is one of the most cost effective blasting agents available for use in large hole diameter mining through to small hole diameter quarrying. ANFO provides excellent heave energy.

BOOSTERS



Boosters are made of cast TNT/RDX mixtures with an integrated primer charge of pressed tetryl or PETN which produces high velocity of detonation and detonating pressures, ensuring reliable initiation of bulk and cartridge explosives.





*Sustaining Global
Defence Productions*



1. Hardware Sales

Selling servers, workstations, laptops, desktops, networking equipment, and peripherals.

2. Custom Builds

Designing and assembling custom hardware solutions tailored to specific business needs.

3. Installation Services

Setting up and configuring hardware at client locations.

4. Network Design and Implementation

Planning and implementing networking solutions, including routers, switches, and wireless access points.

5. Cloud Integration

Helping businesses integrate on-premises hardware with cloud services for hybrid solutions.

6. Training and Consultation

Offering training sessions for staff on how to effectively use and maintain hardware.

7. Control & Operation Room

Offering designing and implementation of control rooms or operation rooms.

About the CEO



The CEO, Mr. Osman Chennar, is an accomplished, multi-skilled, pragmatic business man with over 20 years of experience in the Defence sector. He established Kalandor Limited. Registered in Bulgaria and Turkey in the Trade Companies Register, the company is fully licensed for export and import of Defence related products. He has good cooperation with producers and suppliers in the field of the production of arms, ammunition and dual used goods.

He is specialized in:

- **Acquiring stocks directly from manufacturers from several countries and covering all available empty production slots with orders from manufacturers.**
- **He is into import, export and re-export of military products.**
- **He partners in the production lines of several entities.**

He is known for his capacity to supply a full range of arms and ammunition within a short lead time and has successfully executed contracts within ministries of Defence of several countries such as Nigeria (Army, Navy, and Air Force), UAE, Ethiopian Defence Ministry, Democratic republic of Congo, Egypt, and Albania.



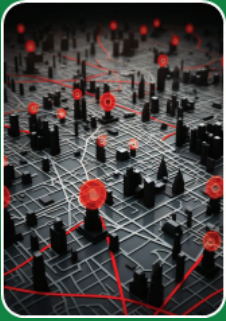
Products Overview



*Sustaining Global
Defence Productions*



Our Cutting Edge Solutions



Location Intelligence

Utilizes geospatial data for enhanced situational awareness and informed decision-making in their operations.



LBS

Leverages geographical data to track and analyze the location of devices or individuals for operational purposes.



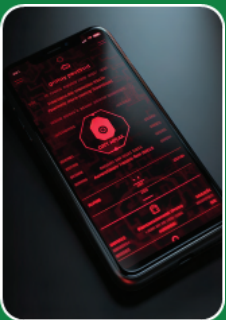
OSINT

Unleash the potential of our OSINT solution for comprehensive information gathering and analysis, providing actionable insights for strategic decision-making and enhanced security.



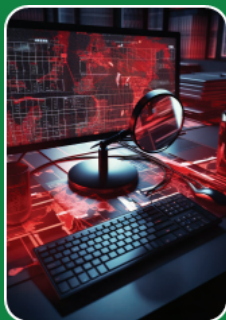
CCTV AI Module

Utilizes advanced algorithms to identify and track faces or vehicle license plates, aiding in surveillance and security applications.



Secure Messenger

Ensures confidential communication, protects sensitive data, and maintains operational security amidst evolving digital threats.



Digital Forensics

Extract, analyze, and leverage digital evidence crucial for uncovering threats, understanding adversaries, and safeguarding national security.



Surveillance & Counter-Surveillance

Protects against adversaries' monitoring, safeguarding classified information and operations.



Cybersecurity

Cybersecurity products are vital defenses against digital threats, employing technologies like firewalls and antivirus software to safeguard systems and data from unauthorized access and attacks.



DICON D7G



*Sustaining Global
Defence Productions*

**A Revolution in Geospatial
Technology through an Innovative
Crowd Intelligence System;
Pioneering Counter Terrorism
and Crime Prevention.**

DICON D7G creates behavioral analytics models
that enable us to analyze the digital
footprints of anonymous devices based on
their movements and behaviors. These
models reveal incredibly intelligent patterns.



Why DICON D7G?



> Investigate



> Monitor



> Protect



> Predict & Prevent



Detecting & Combating most types of crime

- > Organised Crimes
- > Terrorism
- > Financial Crimes
- > Border Security
(Human trafficking, Weapons Supply, ...)
- > Critical Infrastructure Security
- > Natural Disasters
- > Espionage



Sustaining Global
Defence Productions



Organized crime

- Drug Trafficking
- Drug dealing
- Human Trafficking
- Kidnapping
- Banditry

Counter-Terrorism

Identify key players

Identify their locations

Terrorists' groups with sudden movements

Identify threat patterns

Track Terrorists' activities

Uncover hidden trends

Discover relationships



Financial Crimes

- > TBML
- > TBTF
- > Money Laundering
- > Corruption
- > Fraud
- > Tax Evasion

Financial Crimes

- > Detect suspicious behavior at onboarding
- > Mitigate transaction fraud and slash false positives
- > Prevent account takeovers & account update fraud
- > Investigating Corruption Networks
- > Identifying Asset Locations
- > Tracking Financial Flows

Border Security

- > Protect your borders 24/7 and get alerted by any trespassers
- > Identify & protect critical premises (geofencing)
- > Tracing illicit supply chains (weapons, ...)
- > Demonstrate trafficking routes
- > Identify smugglers and their inter countries activity

Critical infrastructure Security

- > Real time insights into the status of critical infrastructure (Pipelines, Airports, Embassies,...)
- > Illegal activities interception
- > Predictive analysis
- > Proactive threat detection & protection
- > Logistics tracking



Sustaining Global
Defence Productions



DICON D7G Concept



> Global Visibility



> Correlation with multiple data sources



> Offline System



> Friendly graphical user interface.



> Giving the investigator the ability to achieve technical tasks.



> Navigating in time.



> Control access to information



Friendly graphical user interface



Synchronize different platforms among agencies



Different Data modules under ONE suite



No need for technical skills

Global visibility

- > Data insights beyond borders.
- > Manage a large amount of data (Up to 100,000 application feeding mobility Data Daily Integration of 50 billion records...).
- > Data includes almost all countries.
- > No need for traditional cooperation with local service providers.

Investigator's ability to achieve technical tasks



No need for sophisticated QUERIES.



The investigator can do everything.



Imagination is the limit.



Reduce your circle of confidentiality.

Offline system



Standalone server.



No internet connection is needed.

Technology, Big Data & AI

Handling	Handling structured and unstructured types of data
Ingesting	Ingesting the large amount of data in a measurable time
Executing	Executing any query or scenario in matter of seconds
Performing	Performing complex predefined scenarios in the background
	Flagging suspicious devices or entities
Providing	Providing alerts and daily threat analysis reports

Navigating in time: Backward & forward investigations



Understanding

Understanding the past



Analyzing

Analyzing the present



Predicting

Predicting the future



Control access to information



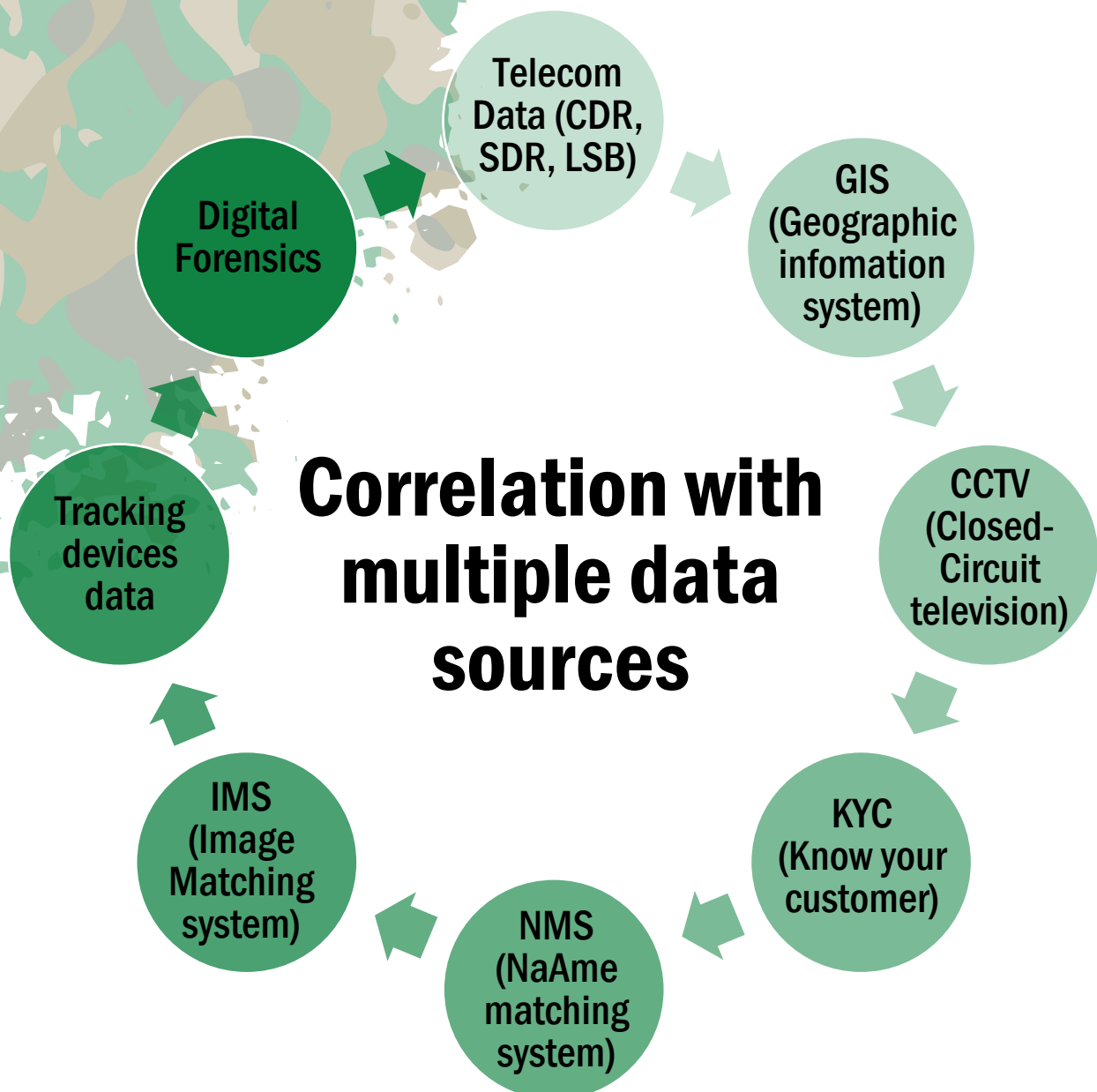
Restrict Access to sensitive areas.



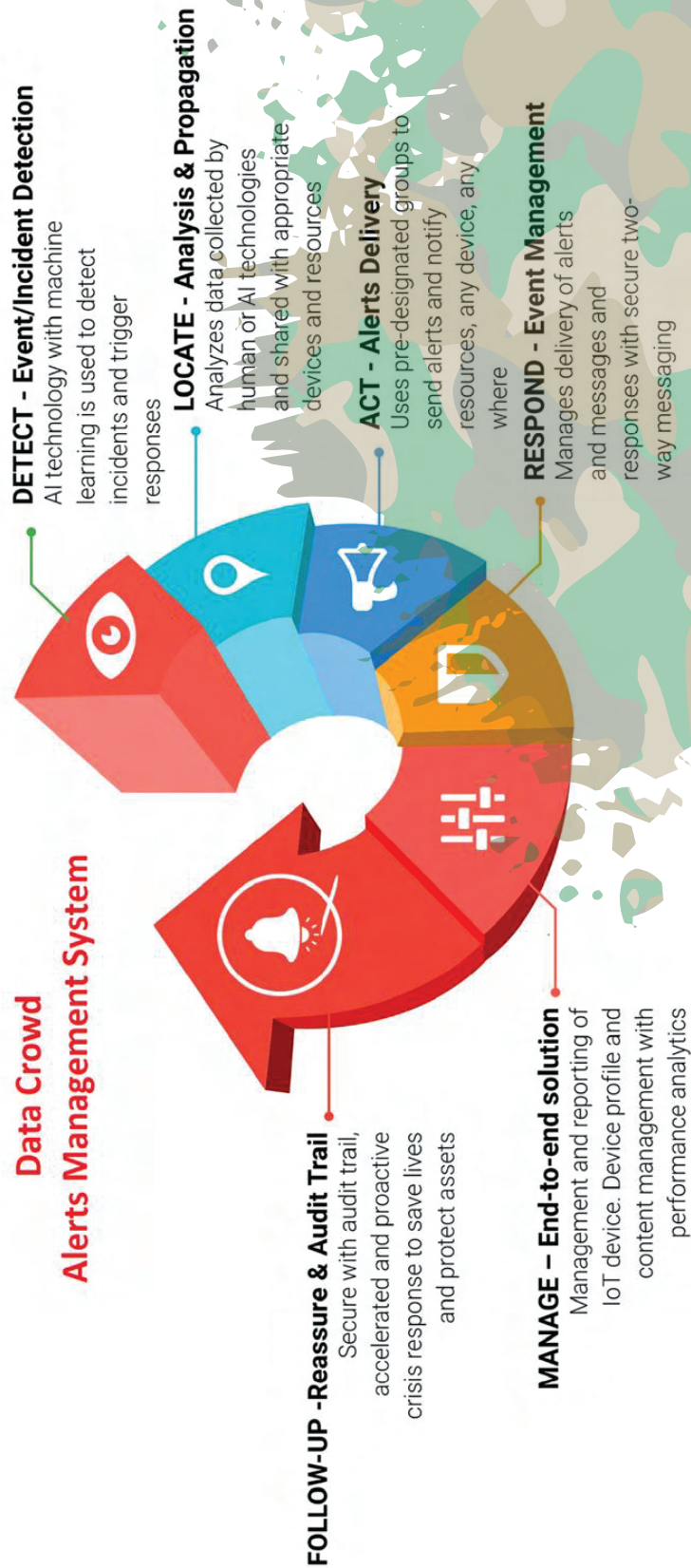
Audit trail record.



Multiple factor authentication(biometrics).



DICON D7G Alert management



**Data Transfer
through online
platform (gcp, aws,...)**



**Downloading
Data from
Private Clouds**

Cloud



**DICON D7G
Data Services**

**No connection
needed between**

**VCIS Data Servers
and deployed
platforms**



**Law Enforcement
Agency**



*Sustaining Global
Defence Productions*



Active

- > Locate specific targets
(Usually Up to 50+ targets)
- > The accuracy is between
50-200 meters
- > Is able to obtain the
location of specific targets only
- > NO Previous
Historical Records

Passive

- > Obtain all
subscribers location
- > Visualize on a
dynamic map
- > The accuracy is between
25-200 meters
- > Detect whether the user
is inside the house
or in an open space

LBS Active & Passive



1

Location Accuracy

Our product guarantees top-tier location accuracy, harnessing innovative methods for precise and reliable positioning.

2

Dynamic Maps

Revolutionize your navigation experience with our dynamic maps product, providing real-time updates and interactive features for seamless exploration.

3

Data Visualization

Experience the power of seamless data visualization with our product, enabling the comprehensive analysis of large datasets at once.

3

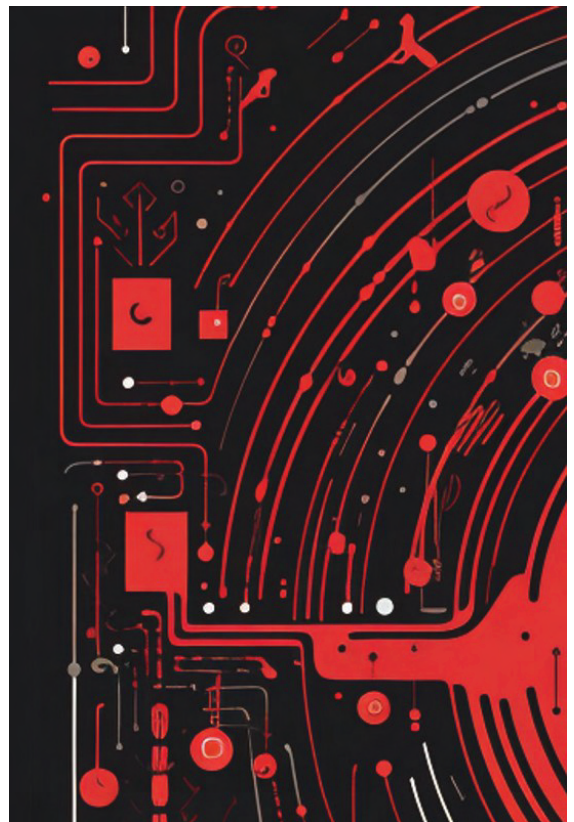
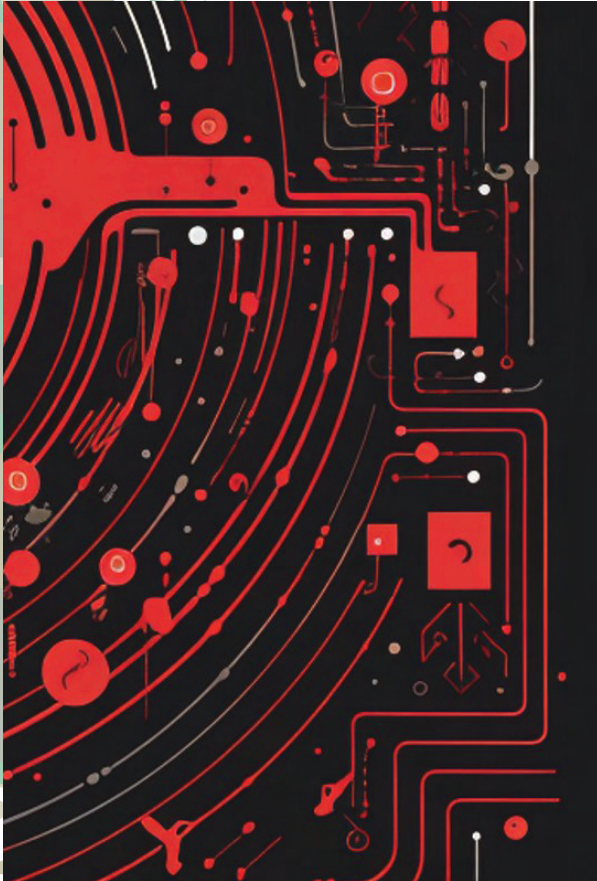
Load Efficiency

Our product excels in efficiently processing vast data volumes, ensuring swift and accurate insights for optimal decision-making.



Intelligence-Driven Decisions

Support decision-making, threat assessment, and strategic planning.



Analyze Large Sets of Data

Gather, analyze, and interpret publicly available data from Social Media, TVs, Websites, Newspapers, Chat Groups, Blogs & many others.

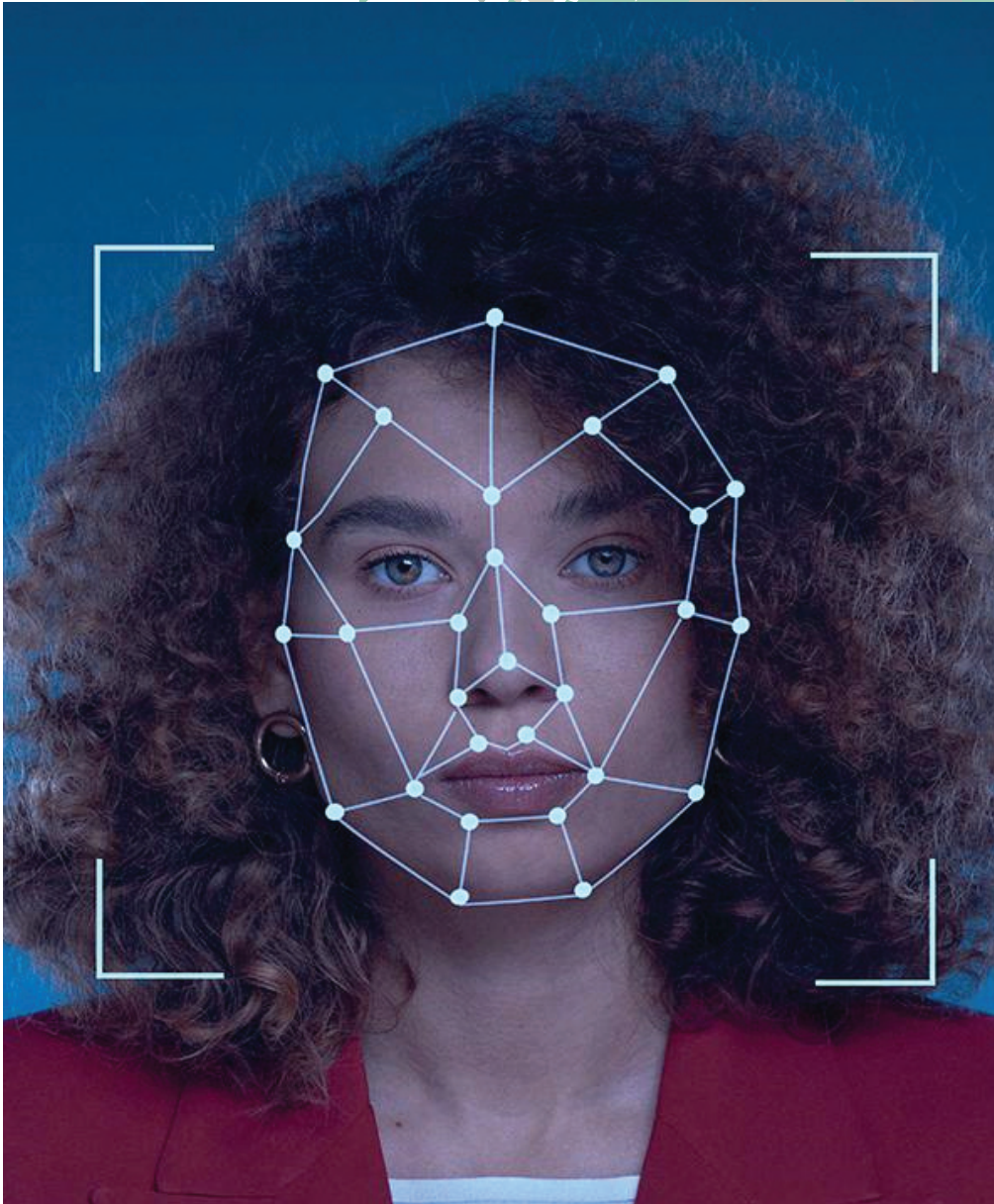
- **Real-time Insights:** OSINT offers current information for swift decision-making.
- **Threat Analysis:** Helps agencies proactively analyze potential risks and monitor activities.
- **Strategic Planning:** Contributes to effective strategies based on open source intelligence.
- **Timely Response:** Enables quick responses to emerging threats and incidents.
- **Collaboration:** Facilitates information sharing among security agencies and stakeholders.



Sustaining Global
Defence Productions



Face Matching & Recognition

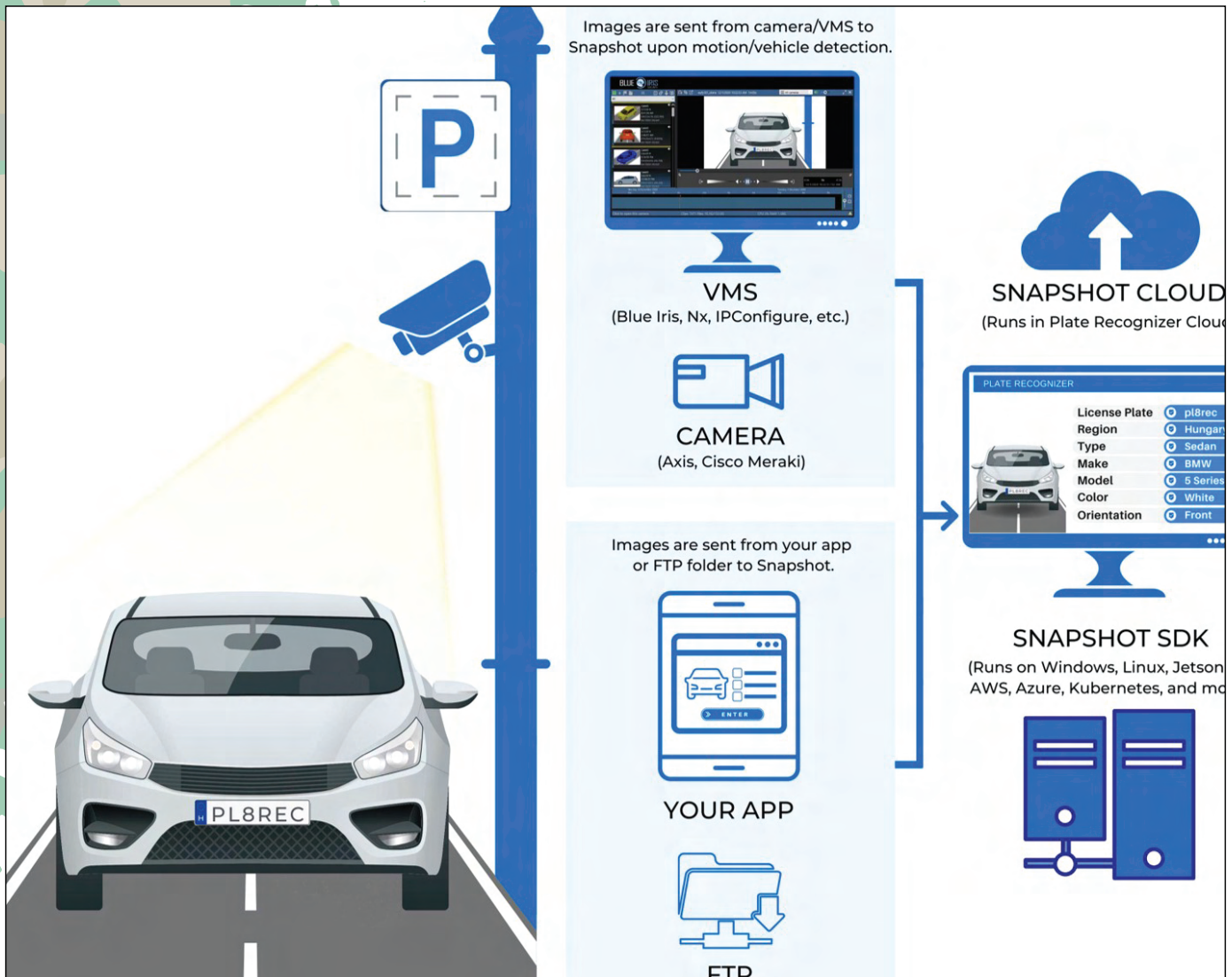


CCTV AI Engine

- Enables search and reporting from vast amounts of video.
- Imports video with faces present.
- Detects faces in video & images quickly.
- Locates person of interest faster.
- Matches faces to suspect list.
- Suitable for static and non-static video (mobile, CCTV, body worn etc.).
- Exports out all faces found in video quickly.



ALPR (Automatic License Plate Recognition)



ALPR System assists in:

- Tracking Suspects.
- Identifying and locating vehicles involved in criminal activities.
- Monitoring and tracking vehicles crossing international boundaries.
- Analyzing patterns, tracking vehicle routes, and identifying associations between different vehicles.
- Identifying stolen vehicles, unregistered cars, or vehicles linked to wanted individuals.
- Threat detection by flagging vehicles associated with potential security risks.





Secure Messenger

100%

You Own The Code

Our product stands out by offering full ownership of the source code, granting users unparalleled control and adaptability. With the ability to customize and enhance the software independently, businesses gain flexibility, security, and long-term value. This unique feature ensures a strategic advantage, empowering users to shape the product according to their evolving needs.

100%

You Own Infrastructure

Our product is uniquely hosted on self-owned infrastructure, guaranteeing users a secure, reliable, and fully controlled environment. With increased data privacy and reduced external dependencies, this approach not only ensures optimized performance but also instills confidence in users that their operations are within their complete control.

100%

Our product employs military-grade encryption, employing state-of-the-art algorithms to secure sensitive data with maximum effectiveness. Users can trust that their information is protected at the highest level, providing peace of mind and robust security against potential threats.



Mobile Forensics



- Extract data from mobile devices
- Recover deleted data
- Crime investigation
- Bypass locked phones
- Preserve Evidence

Computer Forensics



- Extract data from computers laptops and storage media
- Recover deleted data
- Crime investigation
- Bypass locked devices
- Detect Encryption and User Activity
- Preserve Evidence
- Malware Analysis

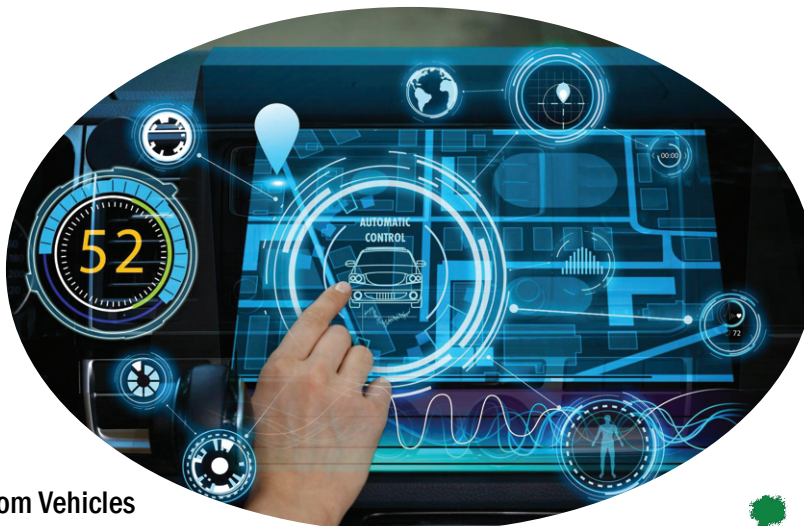
Cloud Forensics



Digital Forensics

- Extract data from online & Social Media
- Accounts
- Recover deleted data
- Find links between multiple devices
- Crime investigation
- Backups
- Preserve Evidence
- Recover & Download Data from Cloud

Vehicle Forensics



- Extract data from Vehicles
- Recover traces and routes
- Crime investigation
- Preserve Evidence
- Event reconstruction



CCTV Forensics



- Extract videos from DVR, NVR, ...
- Recover deleted recordings
- Crime investigation
- Time consuming
- Preserve Evidence
- Bypass locked devices
- Supports various types of Video Recorders

Data Recovery



- Recover Deleted files
- Repair Damaged Hard Drives, SSD, USB,...
- Preserve Evidence
- Crime investigation

Technical Surveillance



IMSI Catcher

Covert Listening Devices (Bugs)

Hidden Cameras

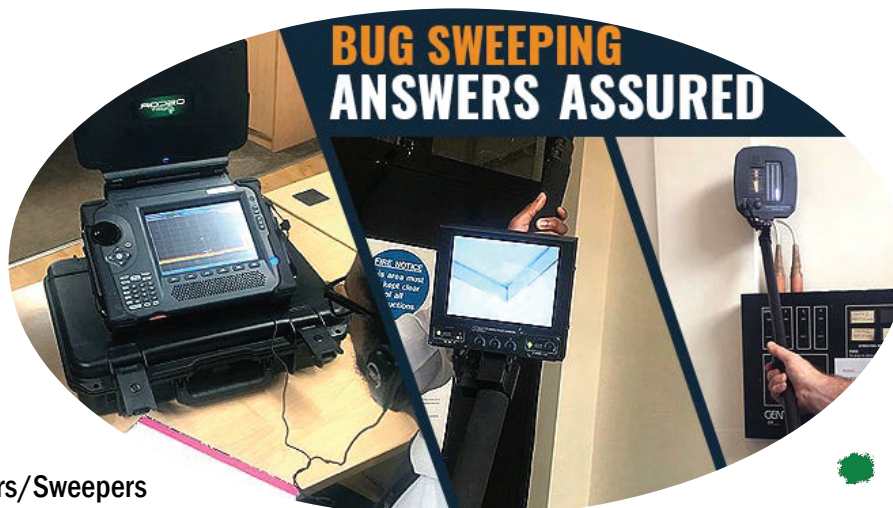
GPS Trackers

Lazer microphone

Audio and Video Recorders

Network Interception Equipment & DPI

Counter-Surveillance



Bug Detectors/Sweepers

Camera Detectors/Sweepers

Wireless Signal Scanners

Jammers

Cellular Signal Detectors

Spectrum Analyzers

Digital Forensics



Security information and event management

Components of SIEM

Data Collection

- Logs from diverse sources (firewalls, antivirus, servers, etc.).
- Network traffic analysis.

Normalization

- Standardizes and normalizes data for consistency.

Correlation

- Identifies patterns and relationships between events

Alerting

- Generates real-time alerts for potential security incidents



Why SIEM Matters

Threat Detection

- Early detection of security threats and incidents.

Incident Response

- Enables quick and effective response to security incidents

Compliance Management

- Facilitates adherence to industry regulations and standards

Forensic Analysis

- Provides detailed analysis for post-incident investigations.

Endpoint Detection & Response

Advanced Threat Detection

Identifies and responds to sophisticated threats
Examines the reputation of files and processes, identifying potential threats based on historical data and behavior.

Reduced Dwell Time

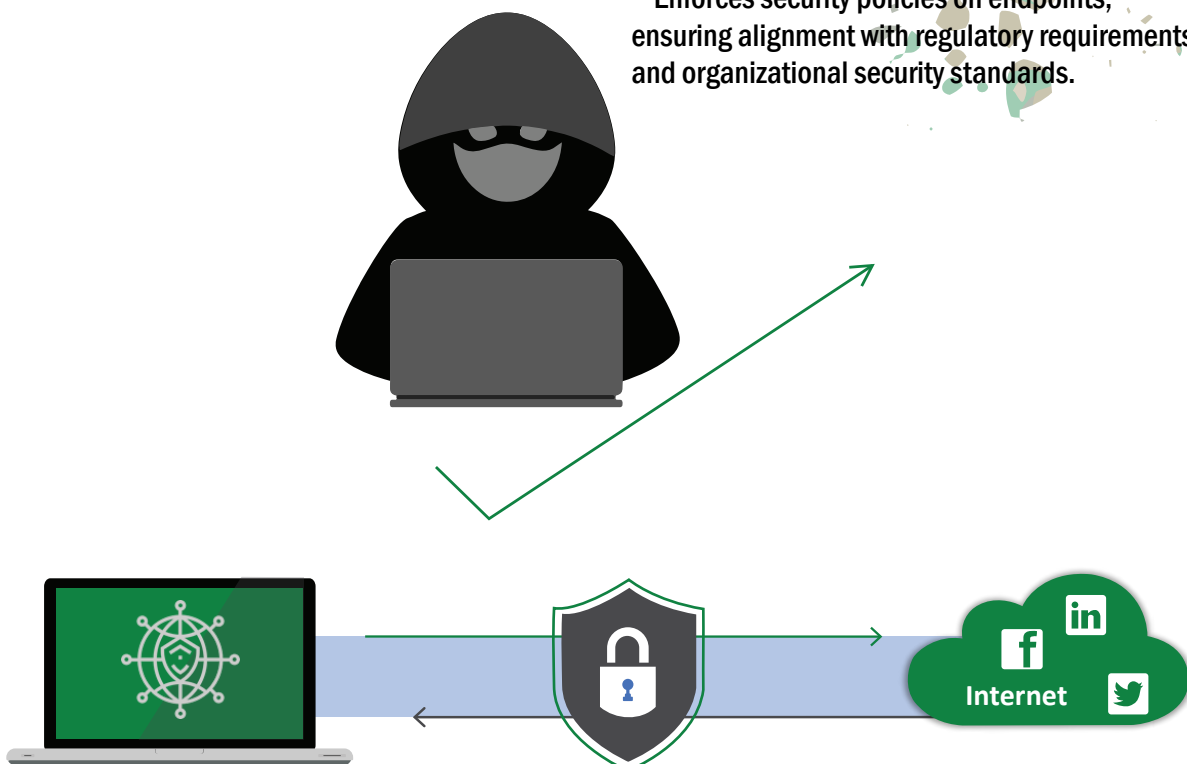
- * Implements automated response actions to minimize manual intervention and reduce the time it takes to neutralize threats.
- * Proactively searches for threats on endpoints, helping to identify and mitigate potential risks before they escalate.

Endpoint Visibility

- * Maintains an updated inventory of all endpoint devices, providing a comprehensive view of the organization's attack surface.
- * Analyzes user behavior on endpoints, detecting anomalies and potential insider threats through advanced analytics.

Compliance Assurance

- * Generates detailed audit trails of endpoint activities, aiding in compliance audits by providing a verifiable record.
- * Enforces security policies on endpoints, ensuring alignment with regulatory requirements and organizational security standards.



Penetration Testing

Objective: Identifying Weaknesses

Systematically uncover vulnerabilities in software, hardware, and network configurations. Prioritize weaknesses based on potential impact and exploitability.

Approaches: Diverse Testing Methods

Black Box Testing:

Simulates external attackers with no prior knowledge of the target system.

White Box Testing:

Assesses the system with full knowledge of internal architecture and code.

Gray Box Testing:

Strikes a balance, providing partial knowledge for a realistic perspective.

Test Your Resilience



Value Proposition: Proactive Security Measures

Risk Mitigation:

Prioritize and address high-risk vulnerabilities.

Compliance Adherence:

Support regulatory compliance with effective security controls.

Trust Building:

Demonstrate commitment to security, building trust with clients and stakeholders.

Process: Step-by-Step Exploration

Planning and Reconnaissance:

Define scope, gather information, and understand the target environment.

Gaining Access:

Attempt to exploit vulnerabilities and gain unauthorized access.

Evaluate impacts, document findings, and provide detailed reports.

Security Operation Center

58%

Skill Shortage

58% of organizations believe they have a problematic shortage of cybersecurity skills, impacting the effectiveness of their cybersecurity posture.

21%

Outsourcing

21% of organizations outsource their SOC functions partially or entirely to third-party providers.

\$215 Billion

Cybersecurity Spending

Worldwide spending on information security and risk management technology was projected to reach \$215 billion in 2024, indicating a continued increase in investment.

Outsourced SOC Benefits

Cost Efficiency:

- * Avoid upfront costs for infrastructure and technology.
- * Benefit from economies of scale and shared resources.

Access to Expertise:

- * Tap into diverse cybersecurity skills and experience.
- * Ensure 24/7 monitoring and response with dedicated professionals.

Advanced Technologies:

- * Access state-of-the-art cybersecurity tools and technologies.
- * Ensure regular updates to combat evolving threats effectively.

Focus on Core Business:

- * Emphasize core business functions with internal teams.
- * Mitigate security risks with dedicated experts, fostering business growth.

SOC SERVICES



Virtual CISO

V C I S O

Cybersecurity
Leadership Unleashed.

- Leverage seasoned cybersecurity experts for strategic direction.
- Develop and implement a risk management strategy aligned with your organization's specific needs.
- Access CISO-level expertise without the cost of a full-time executive.
- Swiftly deploy strategic cybersecurity measures with immediate effect.



Sustaining Global
Defence Productions



Introduction

Criminals have become increasingly adept at taking advantage of people's need to move and their limited choices for doing so, to generate enormous illicit profits by facilitating unsafe migration. Migrant smuggling has been the focus of significant international laws and policies owing to the particular dangers posed to migrants smuggled in perilous conditions at sea. Smuggling by sea has been detected in several regions, including the Gulf of Aden, the Pacific Ocean, the Bay of Bengal, the Andaman Sea and the Mediterranean Sea. Smugglers often increase their profits by reducing safety and keeping conditions poor on board, which usually means cramming people into unseaworthy, disposable vessels.

Tracking vessels with automatic identification systems (AIS)

International waters are governed by the International Maritime Organization (IMO). The IMO requires all ships to use an automatic identification system (AIS). AIS uses the vessel's GPS or sensor built in to the AIS unit to transmit information including:

- * the vessel's name, unique marine identity number and call sign
- * the type of vessel (fishing, cargo or passenger)
- * the vessel's size
- * the vessel's position on the sea
- * its course of travel and speed.

The AIS broadcasts the vessel's position continuously – every 2–12 seconds in order to avoid collisions at sea. Satellites pick up this information and relay it to ground stations, so even vessels in remote parts of the ocean are tracked.

Dark vessels

Vessels that do not want to be tracked switch off their AIS systems. They 'go dark' and are known as dark vessels. The ships may also be involved in transferring illegal goods or smuggling drugs or people. All illegal activities are carried out by dark vessels.

Unlike registered boats, dark vessels don't have identification systems so they can't be tracked. With radar imaging, every boat on the ocean becomes visible, regardless of weather conditions or restricted waters. Cross-checking against registered signals reveals which ships don't belong.

To be able to identify and track dark vessels an intelligent system comprised of Radar, a Frequency direction finder and an AIS transponder is mandatory.



Sustaining Global
Defence Productions



Protecting the territorial waters

Countries that border the sea have territorial waters. A very long time ago, this distance was 3 nautical miles (about 5.5 km) – the range of a cannon shot! In more modern times, the distance was 12 nautical miles (nmi) until 1982 when the United Nations established an international framework to create exclusive economic zones (EEZ) that stretch 200 nmi from the coastline. To protect the territorial water a special system should be used in order to be able to first identify the dark vessel and then be able to locate them. In order to be able to do that we need three systems:

- * Radar
- * Direction Finder with the control station.
- * Automatic Identification System Transponder.

Synthetic aperture radar (SAR)

instruments on board are very essential in determining the presence of dark vessels. SAR emits radar waves that strike the steel surface of a vessel and then ping back. SAR has real advantages over optical imagery (photos) – it isn't blocked by clouds and it does not require someone to be able to see a vessel amongst the camouflaged background of the waves. The solution includes also an automatic localization system of the radio signals on the emergency channel, an aiding system for the search area and search paths calculation and a coordination console that assists the Coast Guard operator during SAR phases by visualizing search paths and the last known position of the vessel in distress.



Localization

An intelligent system could detect and localize the vessel in the sea by monitoring the radio channel activity. Radio communications often occur so that an intelligent observer which looks from different locations could localize the vessel by signal direction detection. To this aim a radio direction finder (RDF), that is a device for finding the direction of an incoming radio signal, may be a useful tool. The Radio Direction Finder checks the signal strength of a directional antenna pointing in different directions. While old devices used a simple rotating antenna linked to a degree indicator, new devices use a dipole antenna to detect the signal.



Sustaining Global
Defence Productions





In the past the RDF was used during the war to detect and identify secret transmitters in large region. The same idea can be applied to the different scenario of marine case. A group of RDFs controlled by an intelligent system can detect a distress signal and localize the source before that a communication between human beings even starts. The system we developed, is also able to track vessel movements after its first identification (tracking feature). The detection range can be increased by the installation of new units along the coast. The intelligent system is composed by a society of intelligent agents which collaborate in monitoring radio frequencies, in matching the detections, in notifying every request. The system normally listens to the maritime radio emergency channels and whenever a signal is detected, a search of possible matches is looked for. When a match is found, the agents notify the discovery to other agents

responsible for other system and to the Coast Guard personnel. When the source of the signal (the vessel) and the two detection stations are not aligned, a geometric triangulation gives the vessel position. The triangulation is computed between the direction vectors detected by the two stations. Of course, two vectors are necessary and sufficient but other ones may be used to improve the precision of the localization. Precision is in fact limited by the small error on the identification of the observed signal direction. The degree error becomes an estimated position error that is proportional to the distance between the source and the detection stations. In Figure 1 we show the simplest scenario where a dark vessel sends a signal that is in turn detected by a couple of coast stations. After the detections, the intelligent agents share that information and localize the source of the signal. In figure 1 we show the two vectors and the two angles used for triangulation. In the system there are two different kinds of stations:

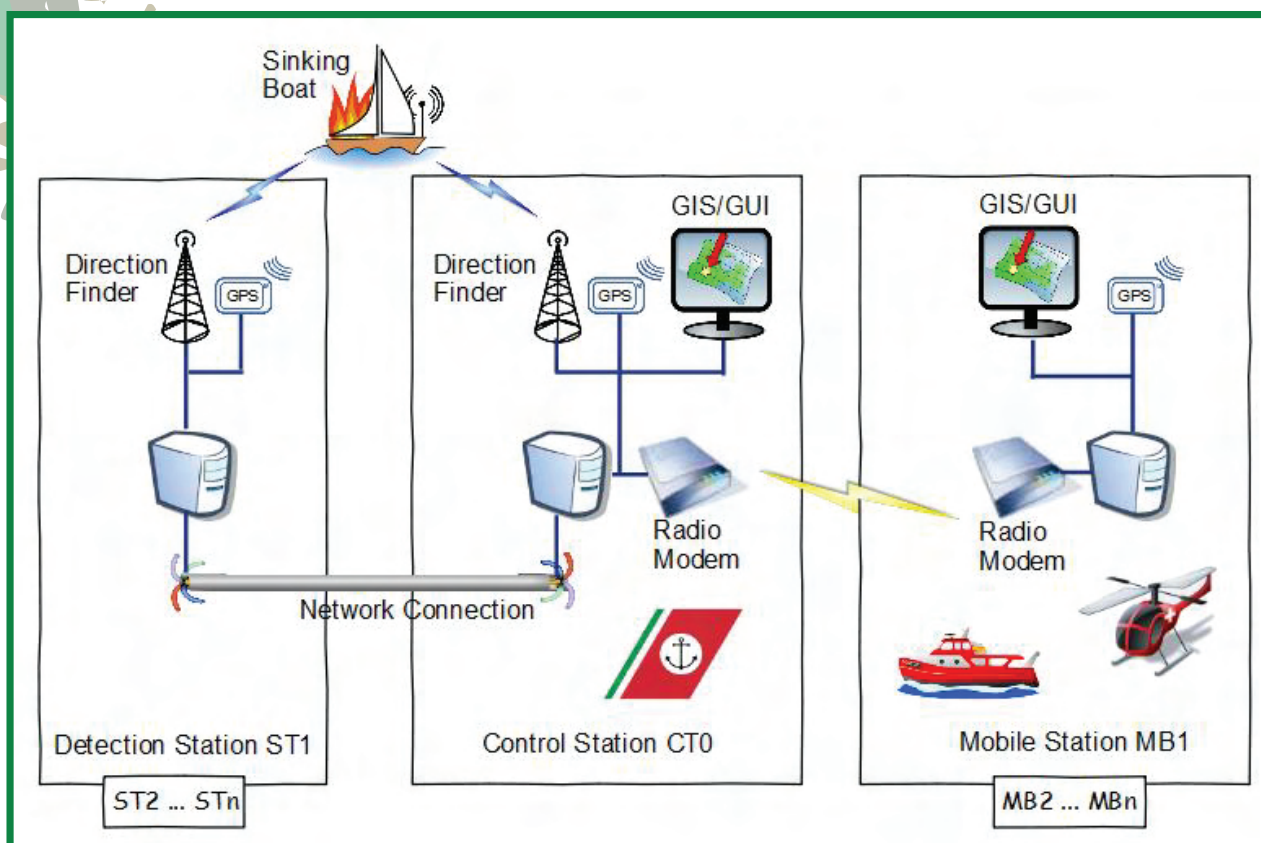
Detection stations are unmanned and the only host hardware and software devoted to receive the radio signal and identify its direction. Control stations are manned and they host a complete hardware-software system thus including the capability of receiving informal ion from detection stations, performing triangulation and supporting SAR operations as described in the next subsection. Usually there is one control station responsible for each sea area according to Coast Guard procedures. Each detection station sends the following data to the control station:

- * the radio channel of the signals obtained from detection finder
- * the direction of the signal
- * the position of the station

The time of detection the position and the time of detections are very useful to match detections from several stations. Of course, two detections of the same signal have a very similar detection time. The detections should be stored in an archive to solve problems about communication delays. In order to match a signal, the system searches a very similar detection from another station occurred in a fixed time window; the match with highest score is selected and used to compute the triangulation.



So far, the computed localizations are sent to a GUI-GIS platform which shows a map to support the detection and finding of the dark vessel. The operator can update the data about any vessel shown by Fig. 1.





*Sustaining Global
Defence Productions*



Army training



*Sustaining Global
Defence Productions*





Localization

To safeguard our nation and its interests by employing cutting-edge technology, strategic planning, and the dedication of our personnel. We envision a future where our citizens and allies can thrive in a secure and stable environment, free from threats to their safety and sovereignty. Our agency will be at the forefront of innovation,



Developing and implementing strategies to counter terrorist threats, including domestic and international terrorism.



Sustaining Global
Defence Production



Developing comprehensive security strategies and plans to address potential threats and vulnerabilities. This includes risk assessments, scenario planning, and resource allocation.

Providing professional security services worldwide.

Cyber Security

The protection of internet-connected systems such as hardware, software and data from cyberthreats.

Expertise in tactical training

This type of training is designed to equip security personnel with the knowledge, skills, and mindset required to effectively respond to a wide range of security threats and situations.

Travelling Bodyguards

High-profile individuals must take extra care and precaution during their travels.

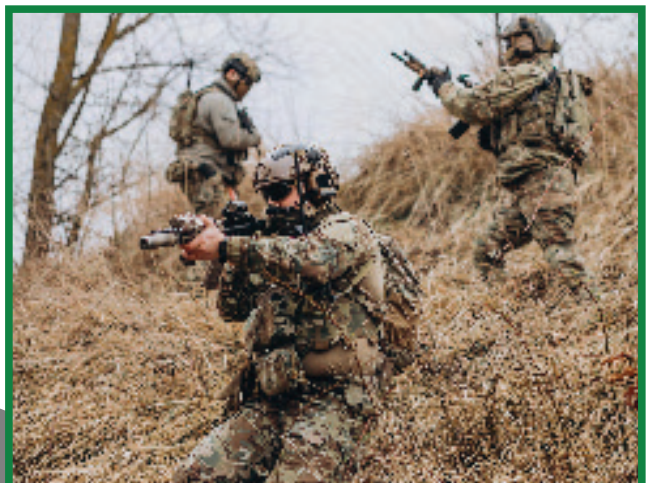
Security devices Equipements

various types of security equipment and devices designed to protect people, property, and assets from threats, theft, vandalism, and unauthorized access.

Private military contractors

Alfa provides expert bodyguard protection. Our agents are well-trained and attentive.

Our Services





Employee Screening

Help your company work smoother with safety regulations & stay safe.

Selling Tactical equipments for law enforcement

Tactical Supply Solutions is proud to be a partner in the vital work of our nation's law enforcement agencies. We work tirelessly to provide the tools and equipment needed for those who put their lives on the line daily to protect our communities.

Our dedication to quality, reliability, and innovation is unwavering, ensuring that our clients are equipped to face any challenge they encounter in the line of duty.

Security Services solutions & consultancy

Alfa Defense promises superior security solutions in what the industry requires.



Alfa Defense





*Sustaining Global
Defence Productions*





*Sustaining Global
Defence Productions*



info@dicond7g.ng

info@d7g.com



www.d7g.ng



+234 80 3333 5533 +234 906 552 7916



NO 26 ALI AMODU CRESCENT, ASOKORO, FCT ABUJA