



MARITIME SOLUTIONS

DENEL INTEGRATED SYSTEMS & MARITIME





YOUR TRUSTED SOVEREIGN
TECHNOLOGY PARTNER



DENEL MARITIME CAPABILITIES

Mission Systems

Integrated Weapon Systems

Naval Dockyard Support

Refits, Upgrades and Upkeep

Maritime Domain Awareness

Operation Phakisa

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A RESPECTED
SOUTH AFRICAN
PROVIDER OF
INNOVATIVE
DEFENCE, SECURITY
AND RELATED
TECHNOLOGIES

Denel SOC Ltd is a state-owned commercially-driven company and strategic partner for innovative defence, security and related technology solutions. It groups together several defence and aerospace divisions and associated companies. Denel provides turn-key solutions of defence equipment to its clients by designing, developing, integrating and supporting artillery, munitions, missiles, aerostructures, aircraft maintenance, unmanned aerial vehicle systems and optical payloads based on high-end technology. Its defence capabilities date back more than 70 years when some of Denel's first manufacturing plants were established.

Between the Denel divisions there is a collective experience of over 200 years. Over the years Denel has built a reputation as a reliable supplier to its many international clients. It supplies systems and consumables to end users as well as sub-systems and components to its industrial client base.

Denel also has a number of equity partnerships, joint ventures and cooperation agreements with renowned international players in the defence industry.



Through the design and deployment of some of the most robust and technologically advanced defence systems in the world, Denel has come to embody the experience of security and wellbeing. Denel's vision is to instill this sense of security at every touch point and in so doing cement its reputation as a fully turn-key partner to the South African defence industries and security.

Within these circles, Denel is already a household name thanks to the development of flagship systems such as the highly celebrated

Rooivalk Attack Helicopter and Umkhonto – true legends of defence technology and a testimony to South Africa's growing reputation as a key player in this arena.

And now, with the addition of Denel Integrated Systems & Maritime to the Denel Group, the company is able to service an entirely new segment of the market and bring its world-renowned engineering and design capabilities to the world's waters.

"THE OCEAN IS A MIGHTY HARMONIST" - WILLIAM WORDSWORTH

VALUES



PERFORMANCE

We embrace operational excellence.



INTEGRITY

We are honest, truthful and ethical.



INNOVATION

We create sustainable innovative solutions.



CARING

We care for our people, customers, communities, nation and the environment.



ACCOUNTABILITY

We take responsibility for our actions.

VISION

To be the trusted sovereign technology partner and system integrator to the defence, maritime and national and civil security sectors in the realisation and through life support of complex systems.

MISSION

Denel Integrated Systems & Maritime will contribute to the promotion of peace, safety and security in the defence, national and civil security markets by delivering and supporting complex, multidisciplinary systems in partnership with local and international defence, security and maritime players and stakeholders.

DENEL INTEGRATED SYSTEMS & MARITIME VALUE PROPOSITION



Strategic partner to the South African Navy



Programme Management



Systems Integration



Acquisition and Local Content



Life-Cycle Management



Integrated Logistics Support



Standardisation

SA DEFENCE REVIEW 2014

South Africa has a maritime dependent economy and significant maritime interests which it must defend and protect through the configuration and maintenance of a versatile littoral maritime capability, a credible deep ocean capability and effective maritime domain awareness. This maritime capability must be able to provide an enduring presence in South Africa's areas of maritime interest. This presence will be pursued through a maritime defence concept involving deterrence and powerful intervention through surface, sub-surface and air capabilities.

This will be pursued in concentric layers that are focussed on South Africa's ports, territorial waters, trade routes and marine resources. In support of the landward strategy, the maritime capability must be able to conduct riverine and inland water operations and augment fire-power when so required. It must also be capable of strategic reach and joint rapid response across the spectrum of conflict, supporting the sustainment of protracted joint operations over long distances.





“DENEL is a national security asset, with the primary purpose of designing, developing, manufacturing and supporting defence matériel.”

“Consideration should be given to establishing a maritime division within DENEL to take over the management of the Naval Dockyard (and any other mutually identified facility) in terms of a properly planned division of both functions and responsibilities between itself and the Navy.”

“The establishment of a DENEL MARITIME division will be an optimal approach, specifically the application of DENEL’s systems engineering capability and its ability to sustain better upkeep of warships and other naval vessels.”

Defence Review 2014



MARITIME MISSION SYSTEMS

The effective supply of any Mission System is dependent on a thorough understanding of the user operational domains, environments and capabilities in order to ensure a structured and systematic approach to the supply, commissioning and support of complex systems.

Denel Integrated Systems & Maritime capabilities are based on a strong foundation of systems engineering, systems integration, software development, test and evaluation, programme management and integrated logistics support. These capabilities, coupled with extensive experience in local and foreign naval systems ensure that total systems solutions and services can be delivered.

Denel Integrated Systems & Maritime is not restricted by in-house product offerings. This gives the company a specific advantage in being able to offer unbiased systems solutions in the best interest of its clients and allows for strategic collaboration and partnership opportunities within industry.

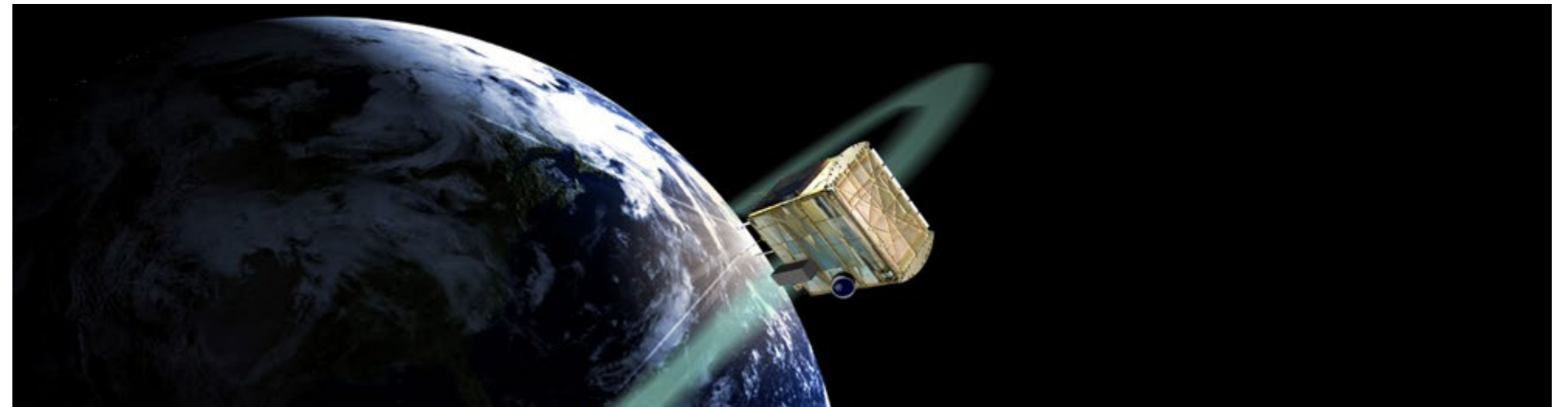
Areas of specialty include but are not limited to:

- Command and Control (Combat Management Systems)
- Integrated communications
- Integrated navigation
- Fire control
- Surveillance (radar and optical)
- Helicopter control
- Electronic warfare
- Armament



DENEL PRODUCTS AND SERVICES

Complementary to the stated offerings of Denel Integrated Systems & Maritime, Denel offers a range of other products and services that are suitable for maritime applications. These are:



MISSILES

- Umkhonto - Surface-to-air Missile System
- Umkhonto GBL - Umkhonto Ground Based Launcher System Land Application (Containerised)
- Mokopa - Long-range Precision-guided Missile – Helicopter Launched

UNMANNED AERIAL SYSTEMS

- SKUA – High speed target drone
- Seeker 200 - Tactical ISR system operates at ranges of up to 250 km from base station
- Seeker 400 - multi-mission, multi-role ISR System operates at ranges of up to 250 km from base station

SPACE TECHNOLOGY

- Development of satellite systems for the South African Government as well as international clients
- Spaceteq is affiliated with the International Astronautical Federation (IAF) an international space advocacy organisation

SMALL, MEDIUM AND LARGE CALIBER AMMUNITION

- Small caliber (5.56mm to 12.7mm) ammunition – Denel PMP
- Medium caliber (20mm to 35mm) ammunition – Denel PMP
- Large caliber - Rheinmetall Denel Munitions specializes in the development, design and manufacture of large- and medium-caliber ammunition families



TEST AND EVALUATION

The Denel Overberg Test Range (OTR) offers a professional and cost-effective turn-key solution for test and evaluation.

The Test Range has the ability to manage and execute any combination of air, ground and sea flight tests. With key features like an unrestricted test arena with appropriate topography, an instrumentation suite (ISO9001:2008 quality certified), and a variety of target services and guaranteed security of test data.

AIRCRAFT MRO

Denel Aviation has a well-established product support line for military and civilian rotary and fixed wing aircraft, including:

- Repairs, modifications, upgrades and retrofits
- Manufacturing and integration of system components
- Scheduled & non-scheduled operational, intermediate and depot level maintenance
- Aircraft technical publications, manual updates & customisation
- Corrosion expertise



OPTRONICS



SERO FAMILY OF SUBMARINE PERISCOPES

The SERO 250 and 400 differ in respect to their installation purpose – the first most frequently installed in the course of retrofit programs, the latter predominantly installed on submarine new-builds.



OMS FAMILY OF OPTRONIC MASTS

The OMS 110 distinguishes itself through its capability to conduct a 360° QLR in mere three seconds, the OMS 200 by its unique characteristic of bundling its optoelectronic sensors on a single line of sight.



MEOS II SURVEILLANCE SYSTEM

The MEOS II is a fully stabilised, compactly designed surveillance system which incorporates various state-of-the-art sensors.



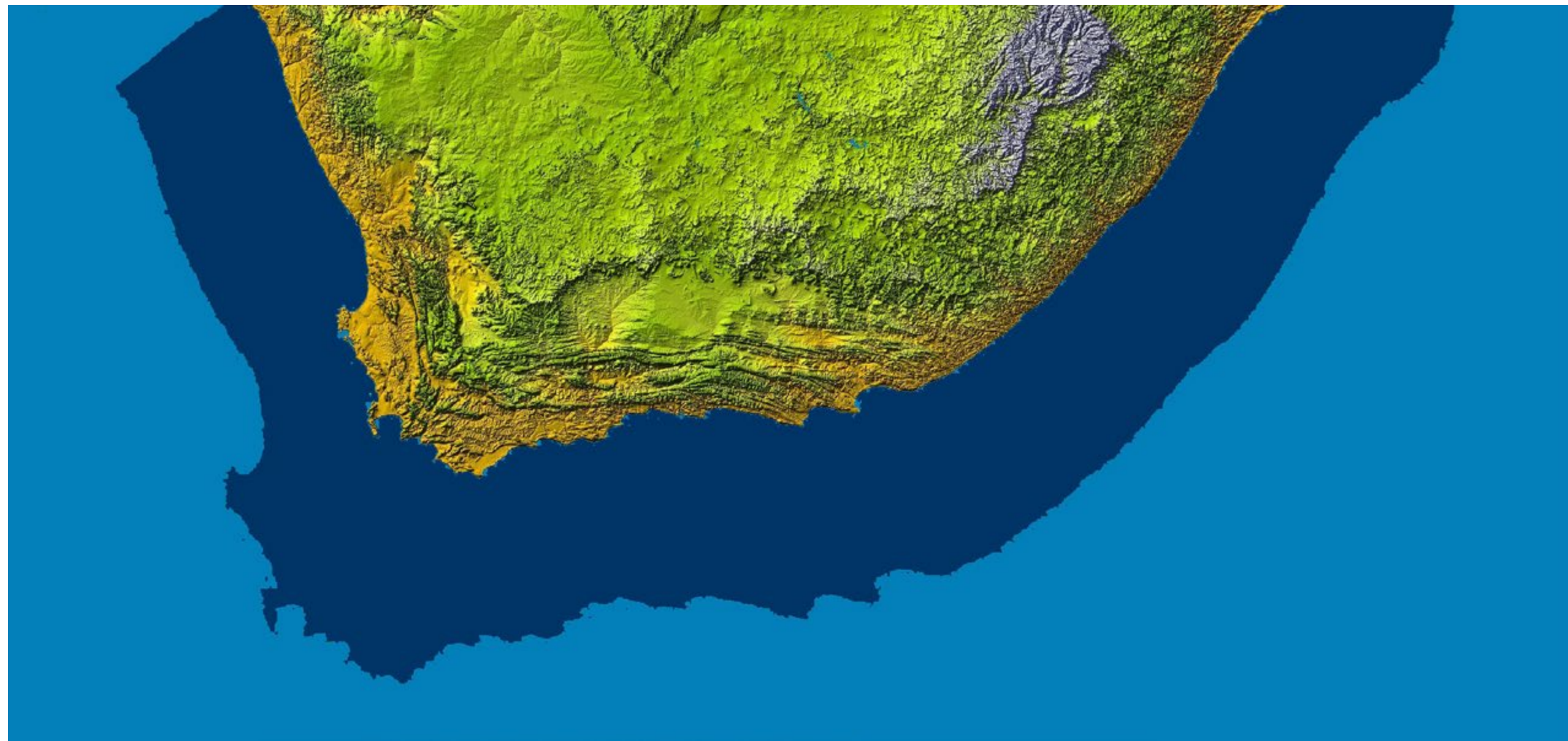
NAVALISED ARTILLERY

- 35mm Dual Purpose Gun (DPG)
- GA-1 20 x 82mm Multi-purpose Automatic Cannon. Light weight 20mm rapid fire
- GI-2 20 x 139mm Rapid Fire Automatic Cannon. A dual fed 20mm
- Upgrades and overhauls of OTO Melara 76mm/62 Gun

MARITIME DOMAIN AWARENESS

Maritime Domain Awareness (MDA) is the understanding of maritime-related threats that could potentially impact the safety, security, economy or environment of a particular country with respect to the Maritime Domain. In order to achieve this, effective detection, data collection and identification capabilities are required. In doing this, threats are detected early, maritime infrastructure can be effectively protected and legitimate use of the maritime domain can be validated.

Denel Integrated Systems & Maritime use a deep understanding of this domain in order to offer cutting edge technology solutions for naval and maritime intelligence for the typical applications of ports, harbour, coastline and Exclusive Economic Zone (EEZ) monitoring such as radar, AIS and geospatial imagery.





NAVAL DOCKYARD SUPPORT

Denel Integrated Systems & Maritime is working closely with Armscor and the South African Navy to explore a collaborative partnership which may lead to a dynamic, original and exciting new model for the Naval Dockyard Simon's Town and Durban in the future.

This new model will balance increased and improved support to the South African Navy's assets with a commercial orientation, allowing other parties to access the world class repair infrastructure available in the Naval Dockyard whilst retaining sovereign control of the facility by the South African Navy.

Denel brings decades of experience in the maintenance, repair and overhaul of defence equipment and systems to the envisaged partnership. Denel's track record of turnaround will contribute to the rejuvenation of the Naval Dockyard.

Denel has assembled formidable naval systems engineering and logistics engineering capability which coupled with the current Dockyard capability, will provide the South African Navy with long-term specialized support into the future.

REJUVENATION OF THE NAVAL DOCKYARD



DENEL INTEGRATED SYSTEMS & MARITIME



Common Strategic Objective:
INCREASED OPERATIONAL AVAILABILITY OF THE NAVAL FLEET



ARMSCOR
Armaments Corporation of South Africa SOC Ltd



Improved Turn-Around-Times



Greater Operational Efficiency



Greater Operational Availability



Commercial Model



Partnerships

OPERATION PHAKISA

"OPERATION PHAKISA IS THE MOST IMPORTANT INITIATIVE BY GOVERNMENT TO BRING THE PRIVATE AND PUBLIC SECTORS TOGETHER."

PRESIDENT JACOB ZUMA

Part of Operation Phakisa is The Oceans Economy Lab, the focus of this Lab was on unlocking the economic potential of South Africa's oceans. With South Africa being bordered by the ocean on three sides, long term developmental programmes must include the coast and ocean resources and not land resources only.

To unlock the ocean economy, four priority areas were identified. These are marine transport and manufacturing activities, such as coastal shipping, transshipment, boat building, repair and refurbishment; offshore oil and gas exploration; aquaculture and marine protection services and ocean governance.

Five key sectors have been identified, one of which is the country's oceans which the government believes could contribute significantly to the country's Gross Domestic Product (GDP) by 2033.

Priority sectors are marine transport and manufacturing activities, such as:

- coastal shipping
- trans-shipment
- boat building
- repair and refurbishment
- offshore oil and gas exploration
- aquaculture
- marine protection services
- ocean governance



