



SAT-COM COMPANY PROFILE 2018

SAT-COM (PTY) Ltd.

Sat-Com designs and manufactures state of the art military communication equipment and add-on accessories for Man Pack, base Station, Vehicular, Naval, Air Force, Repeater and Re-bro applications.

Our Software Defined Multiband radios and solutions provide seamless communication in the HF, VHF and UHF band in one single radio.

The radio advanced features includes latest technologies for Communication Security (COMSEC), Transmission security) (TRANSEC), Front Line Situational Awareness (FLSA) and Automatic Link Establishment (ALE) capabilities.



Our commitment to quality is undersigned by our ISO 9001:2008 accreditation.

SAT-COM COMPANY PROFILE

THE SHORT HISTORY

Sat-Com is part of the Namibia Defence Industry and focuses on a wide range of communication solutions from the design, implementation to the delivery of turnkey solutions for both large enterprises and government departments.

Sat-Com was established in 1991 as a 100% Namibian Company and is located in Windhoek, Namibia. Since then the company has been growing rapidly and today offers a great variety of products and services to the African and International markets. Our initial business focus was on commercial Satellite reception and broadcasting of pay TV channels, hence the name Sat-Com.

Today, Sat-Com is focusing 95% of it's business on military communication systems where we build on our years of experience of standards and performance based on the professionalism of our highly skilled engineers, specialists and technicians.

We develop innovative products and constantly strive to improve our operations and commit ourselves to produce the highest standard of quality and competitive products. Our state of the art in-house research, development, manufacturing and testing facilities allow us to process high volume production orders to the highest standard.

THE TEAM

Sat-Com (Pty) Ltd is a multicultural diverse company that strives for perfection and integrity. A carefully selected R&D team consists of product designers, software, mechanical, electrical and system engineers providing innovative and cutting edge solutions and products for nearly 20 years.

From concept to end product, all steps of development and production are achieved in-house. Manufacturing and production processes conforms to the requirements Of ISO 9001:2008

Quality management system standard are certified by TUV Rheinland Inspection Services (Pty) Ltd. international accredited and certification body.

Experienced and qualified IRCA lead auditor ISO 9001:2008 quality management system and field technicians offer exclusive support and service to all our local and international customers.

The dedicated Sales & Marketing team excels through professional and friendly customer service while the Administration & Finance team guarantees skilled organization among the company through proficient meticulousness. The Costs & Progress team manages the delivery and ensures that customer requirements are met and that all tasks are executed diligently and professionally as scheduled.

OUR TACTICAL APPROACH

Sat-Com design philosophy is to provide the operator with the means to seamlessly communicate to their command, units and other forces from anywhere at almost all times through secure and uncomplicated communication techniques.

Our multi-role radio can be utilised for all applications which, apart from enabling any operator to communicate long distance, short distances, over land, sea and air, simplifies training, enhances user comfort and confidence across all forces whilst reducing capital outlay, simplifies repair and asset management.

All of our products have been designed and tested to comply with the MIL-STD 810G specifications.

The radios are interoperable with any other military radios which are complying to MIL-STD and STANAG standards.

KEY HISTORIC EVENTS (Excluding Commercial & Civilian Business)

2000: Sat-Com wins a design and development contract for the first Namibian Military VHF communications radio. This was a multimillion-dollar contract and was executed and delivered in record time. The radio is one of the best in its class and is still manufactured in quantities. It remains one of Sat-Com's best-selling products to date.

2001: Sat-Com becomes the preferred supplier to Thales UK for our field charging systems. Sat-Com designed and manufactured more than 500 units for export to the United Kingdom. Sat-Com invests in the first CNC milling machine to enhance our manufacturing and design capability.

2003: The shareholders of Sat-Com are approached by the August 26 Group of Companies (Government Owned) to acquire a share in Sat-Com. 49% of Sat-Com was sold to August 26. The main shareholders Brown and Moore still have management control of the company.

2004: The first large manufacturing order for the military Man-Pack radio is executed in record time. Sat-Com upgrades its Printed Circuit Board plant to multi-player production capability. The first Sat-Com graduates join our team of engineers.

2005: Sat-Com installs and commissions Digital Video Broadcasting Up-link for Trinity Broadcasting Namibia and One-Africa Television. Sat-Com wins a design and development contract for the first Namibian Military HF Communications Radio and wins tenders for a radio trunking system for the City of Windhoek and a HF radio system to the ministry of forestry.

2006: Sat-Com engages in the cellular infrastructure market with major emphasis on Telecommunication Implementation with Nokia. Sat-Com installs and commissions V-Sat Backhaul Satellite networks for Cellular Operators in Namibia.

- 2007:** Sat-Com expands its premises to cater for the expansion in the Cellular business. Sat-Com partners with HYT Science and Technology Co LTD of China for distribution rights of 2-way radio products in Africa. SC Communication in Johannesburg was formed for improved distribution into Africa.
- 2008:** The rollout for the cellular implementation phase was concluded. The August 26 Group of companies (Government Owned) acquires 74.5% of the shares in Sat-Com (PTY) Ltd. in their quest to grow the Namibian defence group of companies.
- 2009:** Sat-Com adopts a split operation approach to regain focus. The R&D team commence with the design of a software defined military radio whilst the engineering service team introduced new products and services to test market response. Sat-Com is awarded a contract for a turn-key V-Sat backhaul system.
- 2010:** Sat-Com is awarded long- terms manufacturing contracts for military communication equipment and invests into its modern business and manufacturing facility.
- 2011:** Sat-Com wins a bid for an instrument landing system to be installed at the largest military airport in Namibia and completes it successfully in 2013 and maintains it to ICAO standards through recalibration every year. Sat-Com participates in Namibia's first ITU conference in Geneva, Switzerland.
- 2012:** The Leopard and Cheetah products enter the international market space and international marketing begins.
- 2013:** In March Sat-Com's new Head Quarters with state of the art production and manufacturing facilities was inaugurated by His Excellency Hifikepunye Pohamba President of the Republic of Namibia.
- 2014:** Large Manufacturing Contract is signed with the Namibian Ministry of Defence to manufacture and deliver over a 3 year contract multiple hundreds of the Sat-Com developed communication systems.
- 2015:** Sales and marketing team starts extensive international marketing of our Leopard1 Multiband SDR radio equipment, specifically in Sub Saharan Africa and Asia.
- 2016:** Sales of products into our targeted markets increase while Sat-Com engineers increase Leopard radio's capabilities and features while sales team performed multiple successful field trials in various countries and continents. The Afracal2 RF power amplifier goes into Production and R&D on the Cheetah3 radio starts.
- 2017:** Sat-Com embarks onto a joint development project for a large international end user to customise our military radios including technology transfer for their specific needs. The Cheetah3 Tactical High Power Multiband SDR goes into production.
- 2018:** Sat-Com lands a number of international sales contracts for the military communication systems and the Afracal 1000 (1kW) RF PA goes into production.

FOCUS AREAS

The Research, Development, Manufacturing, Integration and sales of various communication systems.

- Military Software Defined Multiband Radios;
 - **Leopard1** HF/VHF/UHF Radio for Manpack, Base Station and Vehicle
 - **Cheetah3** VHF/UHF Tactical Manpack
- High Power Multiband RF Amplifiers
 - **Afracal2** 125W Dual Tri-Band RF power Amplifier
 - **Afracal 500** (500W) HF power amplifier
 - **Afracal 1000** (1kW) HF power amplifier
- Automatic Antenna Tuner. 1kW ATU for Afracal 500 / 1000
- Data Transfer and Terminals
 - Implemented into the above Military Radios.
- Mechanical Enclosures, Brackets, Parts, Racks, Mounts and anti vibration systems.
 - For the above Military radios and Amplifier
 - Vehicular Racks
 - Base Station Racks

CORE FUNCTIONS

- Research
- Design
- Development
- Manufacturing
- Integration
- Implementation
- Sales (Demonstrations, Field Trials)
- Training

CAPABILITIES

- Mechanical Engineering
 - CAD
 - Milling
 - Laser cutting
 - Bending
 - Powder Coating
- Electronic Engineering
 - CAD
 - Automatic Pick and Place
 - Component manufacturing
- Software Engineering
 - Coding
 - Applications
 - Implementation
- Sales
 - Local
 - International
- Training
- Field Trials

MANUFACTURING CAPACITY

- +/-1200 radios per year – with existing Sat-Com Factory.
- The capacity is easily upgradable depending on need by simply duplicating the production lines.
- Partial outsourcing of production to meet peak demand remains a possibility should the need arise.

• **NEW DEVELOPMENT NEEDS & GROWTH POSSIBILITIES IDENTIFIED**

- High Power RF Amplifier for Base Stations (500W~1000W)
- High Power RF Amplifiers for Naval applications (1000W)
- Higher Powered HF SDR Manpack (100W HF)
- Low Power light weight hand held military Software Defined Radio, 5W, <1kg VHF 30-170MHz with Comsec and Transec interoperable with Leopard & Cheetah radios.
- Technology Transfer Projects for international customers.

SAT-COM PRODUCTS

- **Leopard1 SDR Manpack HF, VHF, UHF**



See product brochure for full details

- **Speaker for Base Stations and Vehicular installations**



- **Radio, Power Amplifier and Vehicular & Base Stations**



See product brochure for full details

- **Power Supply systems, Chargers and Inverters**



See product brochure for full details

- **Cheetah3 SDR Light weight Tactical Manpack**



See product brochure for full details

ACCESSORIES:

For a complete list of accessories, please contact our sales team or visit our web site.

ENHANCEMENT FEATURES:

For a complete list of accessories, please contact our sales team or visit our web site.

THE FACTORY:



Situated on erf 2-6 Jacaranda Street in Windhoek, the Sat-Com factory is spread over 3 levels with a total of +/- 3500 m² of floor space.



The raw materials such as solid Aluminium blocks, loose components, blank PCB's, wires and screws enter the building and the complete operational radio, ready for shipment leaves the building a few days later.

Mechanical – Production/Manufacturing

- CNC milling (one of 5 machines)



- Laser Cutting (one of 2 machines)



- Epoxy Powder Coating



Mechanical: Standards Laboratory en testing:

- Vibration and temperature testing



- Submersion and pressure and Drop Testing



- Explosive and Intrinsic safety Testing



Electronic: Production

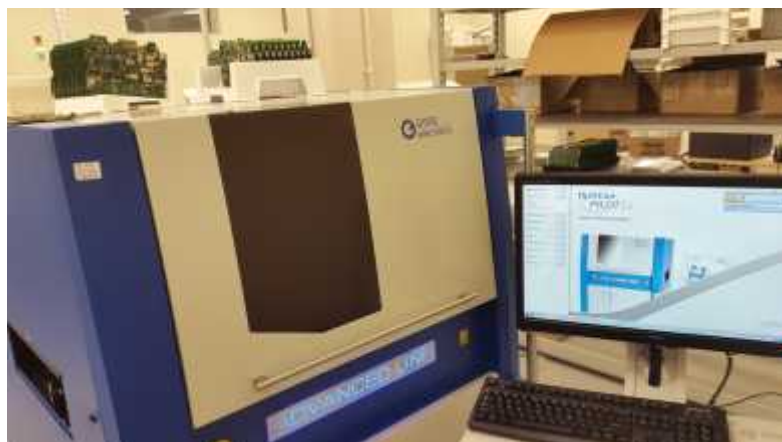
- Pick and Place



- Reflow Soldering



- Optical Inspection



Electronic: Factory Acceptance Testing:

- Automated test benches



- Burn In test benches



SALES: International Exhibitions, Field Trials and Projects

- Sat-Com Sales & Marketing



Sat-Com in Field Trials

Successful field trials have been conducted in many countries and continents with various end users.

Working closely together with various armed forces enables Sat-Com to learn from the operators what their specific needs are.

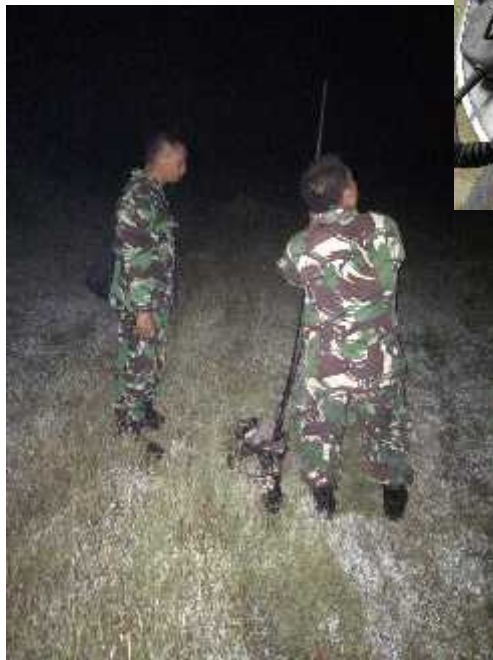
Valid end user feedback is taken back to the factory and implemented to grow our products for our customers.



Field Testing the tactical repeater using 2 Leopard1 man pack radios



Field Testing E-mail over HF using the Leopard1 man pack radio



Field Testing Ground To Air capability using the Cheetah3 tactical man pack radio

END