



Aardvark Newsletter

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News from the Board

Top Achiever Awards

Congratulations to the winners of the Aardvark Roost's 2014 Top Achiever awards.

SAAF EW Systems Course

Mr Andrew Michler (left) from SAAB EDS receiving the award from Brig Gen Butler (Right)

The course took place at the CSIR from 10 – 28 November 2014.



SA-Army SA Army Signal Formation R6 Squadron Commanders Course – EW Module

Maj M.K. Moatshe (left) receiving the trophy from Lt Col A.C. Bezuidenhout (right) the R6 Course leader.

The course took place at Military Base Wonderboom from 28 July 2014 to 10 October 2014.



Membership

Our current AOC membership is standing at 60. We would like to welcome our two latest AOC members, Lt Tessa du Toit and Dembe Nenzhelele.



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Events

The AOC Aardvark Roost has two upcoming events in the month of May.

12th Little Crow Conference

Date: 11 May 2015
Venue: IMT, Simon's Town, Western Cape
Cost: FREE!!

As always with our mini conferences, attendance is free, but if you have not yet done so, please register with Annatjie Orsmond, AOC@csir.co.za, fax 012 841 2455 or telephone 012 841 4861 before the 30th April 2015. Please feel free to distribute this invite to friends/colleagues interested in EW.

The conference will be pre-empted by an industry visit to Peralex Electronics and GEW Technologies in Bergvliet for those who can make it. The facility tour will start at 10h15.

Registration for the conference will commence at 12h30 at IMT. We will close the day with a social function at the Seven Seas Club starting at 17h15. Do not miss it!

Please visit our website (www.aardvarkaoc.co.za) for the full program and more detail.

Social Functions

In order to promote the AOC to non-members in the EW community and to provide more networking opportunities, the Board of the Aardvark Roost has decided to host a few social functions during the year. These will be late-afternoon sessions that will consist of a short talk (30 minutes) on an interesting topic with some discussion and a social function afterwards.

The first function will be hosted at GEW Technologies on the 20th of May and email invitations with more detail on the topic of discussion and the time of the event will be sent out to a targeted group soon.

4th Aardvark Roost Biennial EW Conference

The Aardvark Roost is hosting its biennial two-day international Electronic Warfare conference with a supporting exhibition of South African and International EW companies on the 3rd and 4th of November 2015. In addition, a set of workshops are planned for the 2nd November.

The **keynote speaker** will be **Lt Gen Derick Mbuyiselo Mgwebi**, and will address the challenges faced with the co-ordination, planning and execution of cross-border operations (peace keeping & peace enforcement) between different arms of services, departments, coalition forces and Regional/Continental structures – from an African perspective.

The theme is **EW Africa**, with conference topics that will cover:

- **Strategic:** EW Capabilities, Resources, and Skills required to build a Long-Term competitive advantage.
- **Applications:** The Role and Utilization of EW in Supporting Modern Military and Peace-keeping Missions and Operations.
- **Systems and Technologies:** Emerging Techniques and Technologies in relevant Components, Systems, Signal Processing, Threats and Counter-Measures.
- **Fundamentals:** Waveform diversity, Measurements and Modelling of EW Phenomenology, EW System Architectures.

To assist with this international event, the Aardvark Roost's board are working with TangentLink, a specialist UK based conference & exhibition organiser with a significant international presence.

The call for papers is open. Please visit our website (www.aardvarkaoc.co.za) for more details.





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Social Media



The last two months saw a fantastic growth in the number of member connected to the Aardvark Roost via the LinkedIn social media platform. The Aardvark Roost LinkedIn group was created to provide a means of communicating EW related information and news (both local and international) as well as to be a platform for discussions, collaboration and of course networking. Currently the group membership status stands on 86 members and we wish grow this even more. The group is open to everyone who is (or was) part of or have interest in the South African Electronic Warfare community. Please feel free to contribute!

If you are not yet connected to the Aardvark Roost via LinkedIn please visit www.linkedin.com and search for the group "Aardvark Roost". Alternatively please send an email to aarvarkroost@gmail.com upon which an invitation will be processed.

Webinar

Demystifying Monopulse Radars

May 7, 2015 | 1400-1500 EDT (1800-1900 GMT)

The historical development of these techniques will be summarized to show how this process led almost inevitably to the development of monopulse radar. A simplified version of the theory behind monopulse will be provided to show how the measured returns are related to an angular error. A basic discussion of some of the approaches used to implement monopulse radar will be provided including considerations such as the difference between amplitude- and phase-comparison monopulse. Throughout this presentation, the focus will be on why each of these considerations is relevant to real-world systems.



Speaker: Prof Warren du Plessis

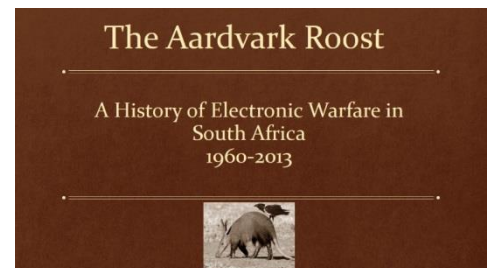
Associate Professor, Chair in Electronic Defence Research (CEDR), University of Pretoria.

To register for this webinar:

https://events-na11.adobeconnect.com/content/connect/c1/1099999966/en/events/event/shared/default_template/event_registration.html?sco-id=1314155498& charset =utf-8&utm_source=Monopulse+Webinar+4-9-15&utm_campaign=Monopulse+Webinar+4%2F9%2F15&utm_medium=email

History

Most AOC Aardvark roost fellows would know by now that the organization has started to collect historical information to put together in the form of a book. This book will touch on great achievements accomplished decades ago such as Basil Schönland and his radar team of 1940 shown below.



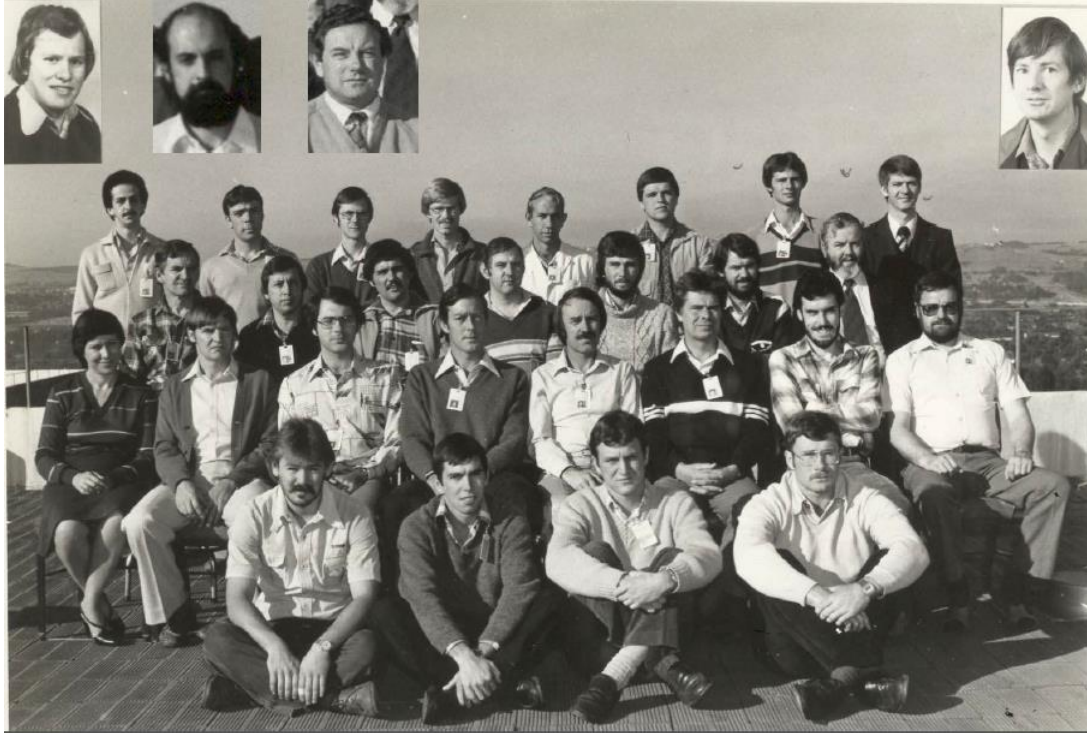
The exciting part of the book is however celebrating achievements of people that are still with us. I think the picture below illustrates this very well. It is of the Electromagnetic Division of NIDeFR photographed in 1981. Have a look at some of the faces and I am sure you will recognise many of them



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because of their achievements. It consists of people that have become world leaders in their fields, managing directors of corporations, university professors, and industry leaders. We have much to celebrate as an industry and as a country and this book will be a start to do so.



Industry News

Local Industry News

The Aardvark Roost wishes to thank DefenceWeb (www.defenceweb.co.za) for coming aboard and allowing us to use published content from their website which is related to EW. Please visit their site for up to date Defence Industry news!



New alliance to boost SA EW capabilities

Written by defenceWeb, Tuesday, 10 March 2015

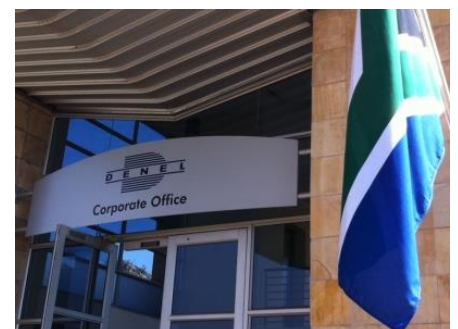
http://www.defenceweb.co.za/index.php?option=com_content&view=article&id=38311:new-alliance-to-boost-sa-ew-capabilities&catid=7:Industry&Itemid=116

Denel has joined forces with GEW Technologies, a South African company in the Airbus Defence and Space stable, to collaborate on electronic warfare (EW) programmes.

The new alliance, announced this week, will significantly strengthen South Africa's capabilities in an area that has become a primary feature of modern defence systems, according to Riaz Saloojee, Denel Group chief executive.

"We are combining the experience, reputation and resources of Denel with the specialist technology and expertise offered by GEW Technologies to create an alliance to best serve the strategic interests of South Africa.

Electronic warfare technology has been singled out in the 2014 Defence Review as a "key technology domain" and a "sovereign capability" which must be under the control of local South African companies





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Carel van der Merwe, GEW Technologies chief executive, said GEW has more than 40 years of experience in the design and production of sophisticated communication monitoring, counter-measures and integrated security systems.

“We look forward to working with Denel in an alliance that heralds a new era in electronic warfare programmes in South Africa.”

GEW’s ties with Airbus Defence and Space will add international experience and expertise from Europe’s leading manufacturer of defence technology. Denel already has a working relationship with Airbus Defence and Space through its role as a top tier supplier of Aerostructures for the A400M military airlifter.

“This agreement confirms the trust Airbus has in the capabilities of both Denel and GEW Technologies and will strengthen the relationship between our companies,” said Andreas Huelle, head of electronic warfare at Airbus Defence and Space.

Denel Integrated Systems and Management (ISM) was established at the end of last year with Ismail Dockrat as chief executive. The Kempton Park-based business division of the State-owned defence industry conglomerate was set up primarily to be a partner to the defence and security sectors in the design, management, integration and through-life support of complex systems, including EW.

“This will be a primary future focus area for the SA National Defence Force (SANDF) to expand its current capabilities and implement counter-measures to combat potential threats to national security.

“The partnership between Denel ISM and GEW Technologies will play a leadership role to co-ordinate different initiatives, advise decision-makers on acquisition of appropriate systems, ensure end-users are adequately trained and provide on-going support, maintenance and upgrading of the systems,” Dockrat said.



Saab Grintek Defence growing as global EW player

Written by Guy Martin, Thursday, 09 April 2015

http://www.defenceweb.co.za/index.php?option=com_content&view=article&id=38715&catid=74&Itemid=30

Saab’s South African facilities form a critical part of the Group’s microwave production capability and Saab Grintek Defence is, amongst others, tasked with producing some of the microwave components for the antennas and electronic warfare components of the Gripen fighter jet for the international market.

Saab Grintek Defence (SGD) said it is currently assembling these parts for the current generation Gripen at its facilities in Centurion outside Pretoria.

The Gripen E/F (Gripen Next Generation – NG) features things like AESA (Active Electronically Scanned Array) radar,IRST (Infrared Search and Track) sensor and the ability to supercruise. It also carries a wide variety of weapons, has a more powerful engine with increased fuel capacity and greatly improved avionics.



Brazil has ordered 36 Gripen E/Fs while the Swedish air force is planning to take delivery of 60 Gripen Es from 2019. The first aircraft is due to be rolled out during 2016. Saab estimates there is the potential to sell between 300 and 450 new generation Gripens. As one of Saab’s microwave production houses, this provides a lot of business for Saab Grintek Defence and accounts for around 8% of sales.

Chris Skinner, head of marketing and sales at Saab Grintek Defence, told defenceWeb that this production is a result of the Strategic Defence Procurement Packages awarded in the late 1990s that saw South Africa buy 26 Gripens. As part of offset requirements, Saab invested in local companies which today includes Saab Grintek Defence. Skinner maintained that Saab backing has helped position the company for increased international export sales tremendously and the company today has turnover in excess of a billion rand a year and employs 700-800 people. 80-90% of this revenue is from foreign orders.

One of SGD’s main sources of turnover is the Integrated Defensive Aids Suite (IDAS), which has done well in India, where it is being fitted onto the Air Force and Army’s Dhruv Advanced Light Helicopters.

SGD also developed and are producing the LEDS self-protection system for land vehicles. The LEDS 50 Automated Softkill System provides the crew with laser warning when a threat laser emission is detected and allows for automated



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deployment of effectors like multispectral screening smoke and active signature management. It can also cue a vehicle's turret weapons e.g. the main gun for counter-fire.

The LEDS 150 active protection system uses radar sensors to detect incoming enemy fire and fires a small missile to neutralise an incoming enemy round before it hits the vehicle. However, due to cost, Saab has paused development until a partner is found. Skinner said that Saab has spoken to three very interested potential partners but nothing has materialised yet and the search for a partner to complete development continues.

Skinner said he was extremely upbeat about 2015, saying that SGD has secured quite a few orders this year so far. The company secured a large order in Europe two weeks ago and is optimistic about further LEDS 50 orders.