

DENEL insights



FOCUSING ON

Success
and challenges

The Brics Summit

Knowledge
sharing

FIRST QUARTER
2013





Editor's Note

Welcome to the first edition of Denel Insights this year! In this issue we focus on our recent successes and challenges and illustrate the efforts we make to align ourselves with government imperatives.

We also proudly reflect on our growing role as an industry leader on the African continent and in South Africa.

Among the highlights of the first quarter was the Brics summit where Denel's work with alliance partners such as Brazil and Russia was showcased to the world as a model of "South-South" co-operation.

There were some 600 media representatives attending the summit and defence industry seminar in Durban and we relished the opportunity to shine, however briefly, on the global stage.

We continue to work on our business models - which have yielded notable results in the past – and implement the turnaround strategy which focuses on revenue growth, cost optimisation, greater efficiencies and transformation.

This edition, again, reflects the wide spectrum of Denel's activities as it performs as a proudly South African company which delivers world-class technology, products and services and contributes to the country's broader developmental objectives.

Enjoy the read,

Pam Malinda
Acting Group Communications Manager



Message from Riaz Saloojee, Group CEO



The year is proving to be a productive one. We are growing revenue and consolidating and expanding our markets.

The challenge for 2013 is to maintain the momentum. The turnaround is not yet completed. The financial challenges have not yet subsided. We have to continue on our path to run lean and efficient operations, to achieve more with less and to extract the maximum advantages from our resources.

Priorities include focusing on stakeholder relations and continuing with our unique contribution to building a knowledge economy with ongoing youth

and skills development initiatives. This is something we take very seriously and is proving to be very successful.

On March 12 we reported to the Parliamentary Portfolio Committee on Public Enterprises on the status of the companies in the group, progress made with regards to major opportunities, HR and transformation matters as well as the strategic focus of Denel.

On HR and transformation, Denel's labour turnover rate was within the target range of 5-7% and an in-depth exit interview is conducted with all employees when they leave.

Retention in particular of young black engineers and technicians is a focus area for management.

There is a special focus on women and people with disabilities and a succession plan and skills development to fast track the development of ACIs.

Our progress is definitely being noted and applauded. Both our shareholder – through the Department of Public Enterprises – and the Parliamentary structures we report to have commented favourably on our business. An independent survey recently named Denel as the "best-run state-owned enterprise" in the country. We are also receiving increasing recognition for our efforts from the media and commentators.

As importantly, we continue to receive positive feedback from our clients across the scope of our

business activities. Major players in the defence industry – such as Airbus Military – have commented favourably about the quality of our products and services

Earlier in 2013, Denel's Exco held a session to review the company's strategy implementation over the last year and to develop key interventions necessary to take the company forward.

Exco also reviewed the strategic objectives that must be achieved over the next three years and confirmed them as:

- Doubling of revenue;
- A strong balance sheet;
- An optimised cost structure;
- Five percent of turnover invested in Research & Development; (modernised technology);
- To maintain a Level 3 B-BBEE rating, and
- Be a credible South African company.

In addition, the strategy of ensuring internal efficiency drives across the group aimed at achieving further business efficiencies and increasing synergies will be continued. Skills development will be done in a more integrated way to ensure functional group reporting. Strengthening of leadership and focused transformation will be continued.

I am confident that we have the right team in place to create a sustainable and profitable business and meet our objective to significantly increase revenue and turnover by 2015.





Strengthening Denel's leadership and growth strategy

New senior appointments in the Denel Group will strengthen the company's business vision and strategy, says the Group Chief Executive Officer, Riaz Saloojee. They are:



Jan Wessels, the current CEO of Denel Dynamics, has been appointed to the new position of Group Chief Operating Officer. His primary responsibilities will include bidding and contracting for new orders, ensuring progress of cardinal programmes and removing bottle necks, and steering the group's investment portfolio in new technologies, new products and new capacity.

Wessels has as B.Eng. (Hons) degree from the University of Pretoria and has been involved in the defence environment since the 1980s as a design engineer, systems engineer and senior manager.



Wessels succeeds **Major General (Rtd) Otto Schür**, who is retiring after serving on Denel's Executive Committee since 2008. General

Schür enjoyed an illustrious career in the South African Air Force and also served as a diplomat and Chief Director: Acquisition in the Defence Secretariat.



Tsepo Monaheng is the new CEO of Denel Dynamics, the company in the group responsible for the development of tactical missiles, precision-guided weapons and unmanned aerial vehicle systems (UAVS). An electronic engineering graduate from the University of Cape Town, Monaheng has been responsible for the company's UAV business since 2004.



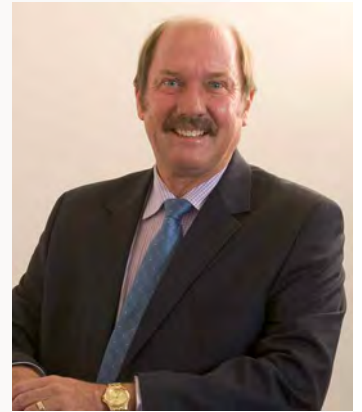
Phaladi Petje is the new CEO of Denel PMP, the leading manufacturer of small- and medium calibre ammunition for military and commercial use. He has an honours degree in Economics from the University of Limpopo and a post-graduate qualification from the Wits Business School.

His appointment comes after 11 years in the Denel Group - 8 years as an Executive Manager Marketing at PMP

and recently, as deputy CEO of PMP.

He succeeds **Carel Wolhuter** who is retiring after 17 years as CEO of PMP. During Wolhuter's tenure the company become the leading manufacturer of small- and medium calibre ammunition for military and commercial use in Africa.

It also produces drill bits for the mining industry and up to 80 tons of brass strip daily at its foundry in Tshwane.



The key to growth in Africa

Africa presents significant growth opportunities for Denel and the company is ready to move decisively into new markets on the continent.

Denel's declared strategy to focus on opportunities in Africa recognises the importance of the continent as a future area for revenue growth, says **Johnny Chabalala**, Senior Executive: Business Development.

However, he warns, the company should not take Africa for granted or underestimate the challenges within the defence business environments. Each country is different with its own history, defence culture, geopolitical circumstances, available budgets, needs and requirements. It requires a dedicated process of relationship-building to make breakthroughs in these markets.



■ **Johnny Chabalala**

Johnny mentions Uganda, Kenya, Ghana and Botswana as key countries for future growth in sub-Saharan Africa. "There is a market for a wide range of products within the Denel stable," he says, from missile technology, to mine-protected vehicles, to small-calibre weapons and ammunition."

He is especially optimistic about the growth potential for services provided by Denel such as the mine clearance done by Mechem, Monitoring and Surveillance capabilities using UAVs as provided by Denel Dynamics and the maintenance, repair and overhaul of helicopters and fixed wing aircraft performed by Denel Aviation. The recent commissioning and launch of the Russian helicopter MRO centre at Denel Aviation is another milestone for the Denel Group.

"The big opportunity for us will be to sit with potential clients, analyse their requirements, and design tailor-made solutions that can meet their needs," says Johnny.



Launch of MRO Centre for Russian helicopters at Brics

Denel Aviation used the occasion of the Brics summit to officially launch its new MRO Centre for Russian Mil Mi-8 and Mi-17-family helicopters at its Kempton Park campus on Tuesday 26 March.

The launch was officially endorsed by President Jacob Zuma who, after bilateral talks with Russian President Vladimir Putin in Durban, described it as one of the "highlights" of the visit. "This is an important development in our relations," he said.

The new service centre is a joint initiative with Russian Helicopters, the state-owned Russian company that incorporates the world-renowned Mil and Kamov brands.

There are some 650 civil and military versions of the Mi-8 and Mi-17-family helicopters flying in Africa today. Denel Aviation has already done road shows across the continent about the new MRO centre and received favourable responses. The first helicopter scheduled to undergo maintenance at the centre, a South African-registered civilian Mi-8T, is already at the facility.

The two companies signed a Memorandum of Understanding at the Africa Aerospace and Defence exhibition (AAD) in September last year which set out the broad parameters for cooperation. The necessary ground support equipment from Russian Helicopters arrived at Denel Aviation in early March and has already been installed and commissioned.



■ Mike Kgobe, CEO of Denel Aviation at the official launch of the MRO facility for Russian Helicopters at the Kempton Park campus.

New industry partnerships at Brics

Denel had a strong presence at the Brics Summit in Durban and used the opportunity to position itself as South Africa's obvious partner-of-choice for companies looking to extend their business into Africa.

"Denel is excited about the many opportunities for new business and cooperation flowing from South Africa's role within the Brics community," said GCEO Riaz Saloojee. "We already have established joint ventures with key defence industry players in the Brics countries and the Durban Summit provided even greater exposure of the products we manufacture and the services we provide."

Among the most prominent projects already underway are:

- Denel Dynamics is working with Brazil on the development of the A-Darter, a short-range air-to-air missile.
- Denel Aviation has a relationship with Russian Helicopters to provide maintenance, repair and overhaul services to its range of products in Africa.
- Denel Aerostructures is involved in talks with Embraer SA to manufacture parts on future aircraft construction.

Denel also participated in presentations and exhibitions on the capabilities of the South African defence industry which was hosted by the Aerospace, Maritime and Defence Industries Association (AMD) on the side lines of the summit.

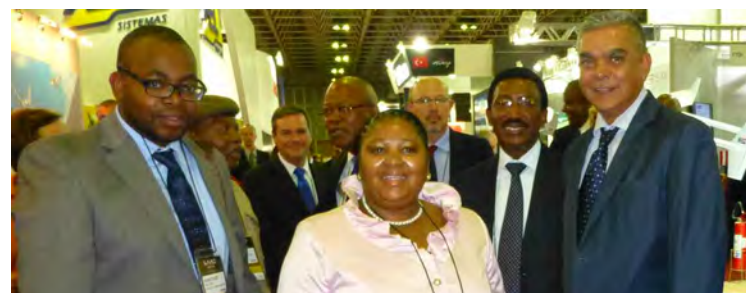
Denel's strong presence at LAAD building on success of Brics summit

Denel's participation in the LAAD defence and security exhibition in Rio de Janeiro from 9 to 12 April followed quickly on the very successful Brics summit of emerging nations and the official visit of Brazilian president Dilma Rousseff to South Africa.

A seminar on opportunities for growth in the defence industries of the five Brics countries – Brazil, Russia, India, the People's Republic of China and South Africa – coincided with the summit. "Denel had a strong presence at LAAD to showcase the quality and range of our products, systems and technology to a wider-range of defence decision-makers in Latin America," said Riaz Saloojee, Group CEO.

"We have strong relationships with the defence industries and defence forces of many countries in South and Latin America and we used these to grow the knowledge about the products and services we can offer the region," said Riaz.

LAAD Defence and Security 2013 is the largest exhibition of its kind in Latin America and attracted official delegations from more than 60 countries. Denel was one of the more than 720 exhibitors to maintain a presence at the Riocentro in Rio de Janeiro.



■ Mr Mthobisi Zondi, Deputy Director General, Department of Defence; Minister Nosiviwe Mapisa-Nqakula, Minister of Defence, Mr Sipho Mkhazazi, Acting CEO, Armscor and Riaz Saloojee, Group CEO, Denel.



Denel hosts a high-level delegation from Chad

Denel hosted a high-level delegation from Chad which included the Minister of Defence and Minister of Foreign Affairs. Malusi Gigaba, Minister of Department of Public Enterprises, hosted the event on 29 March. The visitors were given an overview of the Denelcor business followed by a tour of the UAV Systems production facility.



Denel's strong presence at IDEX

Denel strengthened its marketing campaign in the Middle East and Africa through a strong presence at the International Defence Exhibition (IDEX) in Abu Dhabi in February.

Riaz Saloojee, the Group Chief Executive Officer of Denel SOC said IDEX is the most opportune vehicle for the company to present and demonstrate its products and services to defence decision-makers in the region. The 2011 IDEX was attended by official delegations from 52 countries. "We have identified the Middle East as one of the primary regions for our new marketing drive to grow Denel's business," said

Saloojee "At IDEX we had an opportunity to put some of our flagship products on prominent display and speak directly to potential clients."

Denel has maintained strong relations with clients in the Gulf region for many years. The G6 self-propelled artillery system, manufactured by Denel Land Systems, is currently in use by the defence forces of the United Arab Emirates and Oman. The first product jointly developed by Tawazun Dynamics, the Al-Tariq precision-guided bomb kit, made its debut at IDEX.

Denel Land Systems displayed scale models of its recently upgraded G6-52. The highly-mobile self-propelled gun-howitzer has been upgraded with an increased firing range and ability to fire up to eight rounds per minute.

The company's range of turret systems that can be fitted to armoured fighting vehicles was demonstrated to visitors. Last year, Denel signed a R3.5 billion contract with Malaysia to supply turrets and integrated weapon systems to be fitted to 8X8 armoured vehicles.



Denel at the forefront in the fight against corruption

Fighting corruption in state-owned companies is an on-going priority and it is a source of great pride that Denel receives a clean audit year after year.

Themba Zwelibanzi, Group Risk and Compliance Manager, is the man in the hot seat who says Denel's rigorous controls over tender and procurement processes keep corruption at bay.

"We are very proud of our record and the good systems we have in place to fight corruption," he said. "The biggest focus area is procurement fraud and conflict of interest between employees and suppliers and we have in place a governance process to prevent this."

Procurement is the group's second biggest cost driver. Denel spends some R2-billion a year on suppliers making good governance and transparency a top priority.

Fraudulent activity anywhere along the supply chain will push up costs and have an impact on pricing, ultimately affecting not only Denel, but its customers and suppliers.

"Procurement spend is not only a concern for Denel but to a number of stakeholders including suppliers, customers and government. Some of the suppliers' existence depends on bidding for Denel's work," he says. Denel encourages both the employees

and suppliers to work with management to prevent procurement fraud.

In order to remain one step ahead, Denel is continually creating checks and balances. Themba recently introduced the data analytics system which analyses trends and identifies exceptions in the supply chain and is already showing results. A hot line for employees and suppliers has also paid off.

The supply chain at Denel is carefully scrutinised and tenders will appear before various forums before receiving the go-ahead.

Denel's procurement framework promotes competitive pricing of quality

services and goods and requires honesty and fair dealing by employees involved in the supply chain, from design and specification of requirements to placement and adjudication of tenders.

Risk management is continuously reviewed by management and reported to the group executives on a monthly basis. Internal audits also help curb fraud.

Themba, who has a BComm in Risk Management from UNISA, says the art of risk management involves keeping up with current affairs and having some understanding of the regulatory environment.



Gifts of maths and science dictionaries to learners

"Denel is so respected here..."
Nontsha Mazengwe, Principal of Vaal Reefs
Technical High School.

Denel's endorsement and funding of a project to give learners a free maths and science dictionary at shows and the AAD expo has been so successful that the DPE are now looking at a countrywide distribution of the books with plans to involve other SOCs.

"I think this is the best handout we have ever been given. If we buy in bulk it turns out to be cheaper than say, a water bottle - which is usually the type of gift we give out - and it is of such benefit to learners," said Zizikazi Mlokoti, Project Manager at Denel Technical Academy.

The dictionaries give learners from Grade 8 to matric all the formulas and detailed information they need for maths and science studies. It is a pocket dictionary so it is easy to carry around. Denel distributed 3 000 of these books at the Africa Aerospace and Defence expo (AAD) last year to learners from around the country.

Nontsha Mazengwe, principal of Vaal Reefs Technical High School said they were thrilled with their gifts: "You can take me up on this but you will see the change in our children's maths and science results at the end of this term. We are expecting distinctions!

"Learners are very happy with it as it clarifies so much for them. It is something they can refer to whenever they want to. Sometimes if they don't listen in class and miss something then they can refer to the dictionary which comes up with everything. It is a great step and we really appreciate it. Denel is so respected here, we raise your name everywhere."



Knowledge sharing – the way forward

Deniprop employees participated in the first structured mentoring programme at Denel. It was a twelve month programme focussing on knowledge sharing and personal development.

This was an authentic exercise in diversity awareness using conversations to bridge the gender, ethnic and generational divide.

The programme concluded with a broader community project which saw the mentees leadership skills coming to the fore.

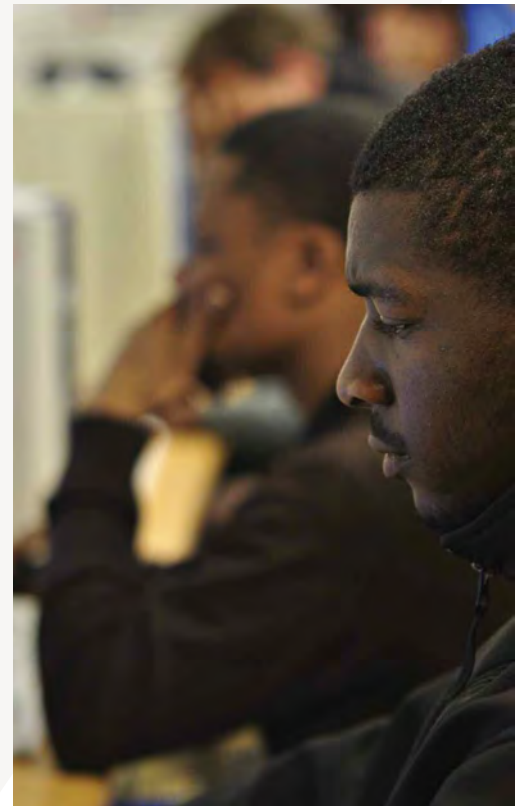
This culminated in an awards ceremony on 19 March. Awards went to: Lifaletu Ndhlovu, Mentee of the year, Roelf Mare, Mentor of the year and the Mentoring Partnership of the Year Award went to Roelf Mare and Nomakhosi Sigasa.

"We are very excited about the outcome of this project, but acknowledge that this is only the beginning of a powerful journey that forms part of our transformation plans at Denel. Knowledge

sharing and leadership development at all levels of the organisation must become the culture of our organisation. "The mentees of Denel Properties have created a legacy with the community based Make a Difference (MAD) project, and will continue to sustain the project through a number of development initiatives," said Rani Padayachey-Moodley, Project Manager.

"There have been many efforts at mentoring in the past which have failed due to a lack of support or simple know-how. The difference with this programme lies in the methodology and synergies between mentors, mentees, subject matter experts and line management. Deniprop, like many other entities, has an aging workforce in which key individuals have critical knowledge and skills that need to be transferred.

"A mentoring programme not only benefits the organisation by reducing the risk of loss of key skills and knowledge, but also helps reduce the load on the key employees," she added.



Sustainability is key to the 'Make a Difference' project



■ Back row left to right: Abram Mphiwe, Paul Malekane, Lucas Mabilu and Moses Mokansi. Front row left to right: Anna Malope, Mpolokeng Daimane, Jimmy Geswind, Khosi Sigasa-Thoabala and Lifa Ndhlovu

(by Khosi Sigasa-Thoabala)

The last phase of the mentoring programme is the (MAD) Make A Difference Project. This is to encourage team and leadership development as well as to embed the knowledge and skills gained throughout the programme. Sustainability is key to the project.

The MAD Project commenced in November 2012, and the team of mentees decided to call themselves Re ya Pele Mentee Team (Re ya Pele means – we going forward). Re ya Pele teamed up with a community youth organisation, Young People Making a Difference (YPMAD) from Soshanguve, who operate from a shack in the middle of a squatter camp in Soshanguve, with no running water, electricity and basic furnishings.

The organisation was formed in 2008 by three young, unemployed men armed with only a matric certificate who decided to empower the local community to acquire additional skills. They train unemployed youth in a variety of skills, assist with homework, (since many pupils in this community

come from child-headed households or live with grandparents who are uneducated) and also host HIV/Aids workshops.

Deniprop mentees decided to assist with education by donating two pre-fabricated containers, converted into mobile classrooms, which were refurbished by the mentees who also provided furnishings and stationery.

Re ya Pele established a partnership between the local school, Lesedi Primary School and YPMAD since many of the children being assisted with homework came from that school. The principal agreed to house the pre-fabricated containers on its grounds. On Friday 15 March the containers were delivered to the school.

The handover was a tear jerker when YPMAD received their new classrooms from Re Ya Pele. All this was done in under three months and with no funding. The Re ya Pele Team comprises Khosi Sigasa-Thoabala, Lifa Ndhlovu, Jimmy Geswind, Mpolokeng Daimane, Abram Mphiwe, Moses Mokansi, Lucas Mabilu, Paul Malekane and Anna Malope.

A number of initiatives are being planned to upskill the YPMAD and it is hoped that other Denel entities will contribute towards this project.



Tawazun Dynamics facility gets the Crown Prince's Approval

Since May 2012, work has been underway on the new Tawazun Dynamics production facility in Abu Dhabi.

The new Tawazun Dynamics facility hosted Sheikh Mohamed bin Zayed Al-Nahyan, Crown Prince of Abu Dhabi and the Deputy Supreme Commander of the UAE Armed Forces on 10 February 2013 when the facility received the country's highest approval. The final touches are being added on and production is expected to commence during April 2013.

Denel Dynamics used last year's Aerospace and Defence expo (AAD) as a platform to announce to the industry an international partnership with Abu Dhabi-based Tawazun Holdings. The joint venture will see Denel Dynamics making guided weapon systems in the Middle Eastern country. Denel Dynamics, trading as Tawazun Dynamics, is 51% owned by Tawazun and 49% by Denel.

Abu Dhabi is the capital and the second largest city of the United Arab Emirates in terms of population and the largest of the seven member emirates of the United Arab Emirates. Abu Dhabi lies on a T-shaped island jutting into the Persian Gulf from the central western coast.

Tawazun Holdings is a strategic investment company focused on defence and specialised manufacturing and is owned by the government of Abu Dhabi.



■ Entrance to the Tawazun Dynamics facility – February 2013.



Laser sharp Al Tariq proves superior

The precision-guided weapon system, Al Tariq, demonstrated superior accuracy against a laser designated target during a recent flight test evaluation.

Despite the level of difficulty intentionally selected to give Al Tariq a thorough test, the weapon completed its mid-course guidance successfully and during terminal phase had a direct hit on the designated target (miss distance < 0.5m). Al Tariq has a number of range options, from 40 km for the standard version to 100 km for the long-range version. The demonstrated accuracy is independent of the range variant. The weapon can furthermore be pre-programmed to engage targets from specific directions and at different dive angles.

Denel Dynamics Youth Forum gets together

Denel Dynamics Youth Forum (DDYF) hosted a 2013 Kick-off Function on Friday 25 January.

Thendo Managa, the outgoing DDYF Chairperson, highlighted some of the DDYF achievements such as the Knowledge Hub symposiums, the 2011 and 2012 Youth Day, the Back to the Future Warfare Work session events as well as the many successful foosball competitions hosted to encourage socialising between all staff members.





Young Achievers' Awards 2013



Sixty engineering bursary students from universities across South Africa, who achieved 150 distinctions between them in 2012, were honored on 25 January for top academic performance.

The Young Achiever Awards 2013 event, held at the Centurion Country Club, was hosted by bursary sponsors; Denel Dynamics.

Jan Wessels, CEO of Denel Dynamics, said youngsters working from advanced technology environments have the potential to create from 10 to 1 000 jobs wherever they go in their productive lives.

"Young engineers can vastly influence job creation and people with bright young minds have the drive to build things that work through experiment and product realisation - exactly the type of skills South Africa needs to nurture."

The ceremony also marked the fourth year that learners and teachers from Denel Dynamics Saturday Maths and Science School were included in the honours list. Learners from Olievenhoutbosch Secondary School and Steve Tshwete Secondary School were rewarded for distinctions achieved in maths and science – a proud moment for everyone involved. These learners are recruited into the bursary scheme and eventually appointed as engineers-in-training.



The group of 60 BSc and BEng (Aeronautical, Mechanical, Electronic and Computer Engineering) undergraduate students came from universities around the country including Universities of Pretoria, Cape Town, Witwatersrand, Kwa-Zulu Natal, Stellenbosch and Johannesburg. Once bursars become interns, they go through an intense engineering and project management programme as part of Denel Dynamics' Engineering Academy of Learning.

The Academy steers interns into technology territory that pushes limits. The 2012 Interns from the Denel Dynamics Engineering Academy of Learning (EAL) were tasked with designing, manufacturing and commissioning a 1 U Cube Satellite (CubeSat) and its associated ground support systems.





New generation CASSPIR raises the standards



The CASSPIR mine-protected vehicle, one of the iconic products of the South African defence industry, has been significantly improved.

The New Generation CASSPIR 2000 sets new standards in protection, power, manoeuvrability and comfort for crew and passengers. It even includes air-conditioning as a standard feature.

"The basic, reliable features of the CASSPIR remain the same," said Ashley Williams, the General Manager of Denel Mechem. "It has always been the world leader in its class – providing unequalled protection against landmines, roadside bombs and automatic rifle fire.

"Now we have upgraded the hull protection by using a higher quality of steel, increased its power, improved the accessibility for passengers and mounted it on a more versatile and reliable vehicle platform," says Mr Williams.

There are two versions of the CASSPIR NG 2000 one mounted on a Mercedes Benz drive train and the 2000B using a Powerstar engine as platform. Both versions will feature an upgraded steel hull meeting the highest industry standards of protection.

Jack Geldenhuys, Mechem's Manager for Vehicle Systems, says the new vehicle will also feature side doors for the driver and crew and an improved back-door design for troops or passengers to enter

and exit during operations. The CASSPIR can feature in its conventional role as mine-resistant troop carrier but can also be adapted to become a field ambulance, a command-and-control vehicle, a recovery vehicle or a light transport vehicle. All variants are fitted with run-flat tyres and are available in 6X6 or 4X4 format and with a choice of manual or automatic transmission.

Jack said the decision to standardise the engine and drive train makes the CASSPIR a more cost-effective solution for the international agencies and defence forces that depend on its outstanding reputation for reliability. This means substantial savings on maintenance costs, spare parts and logistics.



Suppliers' day for largest and most strategic SA suppliers



Denel Land Systems, incorporating Mechem, hosted a suppliers' day event for its largest and most strategic South African suppliers in the private sector on 28 February. The main theme for the event was Supplier Transformation and Business Sustainability Beyond 2013.

Guest speakers included: Dr Tebogo Makube, Chief Director: DTH-Industrial Procurement, Bridget Mohlala, Director: EDD- Economic Development and Social Dialogue, Abdul Isma, SA Supplier Diversity Council and Dennis Mlambo, Denel Group Supply Chain Executive.

New Mechem cabs provide improved protection

Crew members driving trucks that carry humanitarian support in conflict areas can now enjoy better protection from landmines and roadside bombs because of new cabs manufactured by Mechem.

Ashley Williams, the General Manager of Denel Mechem, says the new cab systems are primarily aimed at clients in Africa who render humanitarian assistance in post-conflict

zones. Such trucks, carrying life-saving loads of medicines, food, tents and fuel, are vulnerable to the scourge of landmines and roadside bombs.

Ashley says Mechem identified a clear need for a strengthened cab that can be fitted on all makes and models of 4X4 or 6X6 supply trucks.

The new cab was designed and developed at Denel Mechem and the

conversions are done at its facilities in Lyttelton. Mechem offers potential clients a complete multi-purpose truck based on a Powerstar drive train and fitted with the strengthened mine-protected cab.

Denel Mechem has the capacity to upgrade the level of protection of the cab according to the requirements of the client. The standard versions can be modified into fuel and water trucks

or for medical support. This provides a client with a versatile range of trucks based on the same drive train resulting in substantial savings on logistics, maintenance and spare parts.

Ashley said the new truck and cab design can also be an ideal future replacement for the South African Defence Force's range of SAMIL trucks that are now reaching the end of their working lives.

Mechem's role in preventing rhino poaching



Mechem's sniffer dogs are playing a star role in helping fight the scourge of rhino poaching.

So far Mechem's Dog Unit has trained and deployed 11 dogs and 11 handlers in various game parks around the country. Ten of the dogs are tracker and apprehension trained, which means that the dog can track humans and apprehend fleeing poachers.

Mechem has also trained a dog in the detection of protected species such as rhino horn, ivory, crayfish and perlemoen and it has been despatched to the Cape to help fight poaching.

The Dog Unit presented yet another Stop Rhino Poaching Tracker/Apprehension Dog Handlers

course in the North West Province. This course started on the 28 January and ended on the 13 April.

A total of 15 dogs will then have been deployed – a small number, yet these dogs make a huge difference.





Final operation-ready Rooivalk handover to the SAAF



■ Lt Col R Buys (left) and Maj J Stirling received the last fully operational Rooivalk on behalf of 16 Squadron.

The final operation-ready Rooivalk helicopter has been handed over to the South African Air Force (SAAF) by Denel Aviation.

Mike Kgobe, the CEO of Denel Aviation, says the acceptance of the locally developed combat support helicopter marks the culmination of a 26 year partnership between the SAAF and Denel.

"We took this proudly South African aircraft through all its stages – from design to manufacturing, upgrading and retrofitting – to the point where it will soon be deployed."

Denel will continue to be involved with the Rooivalk through on-going maintenance and repair services and providing the continued airworthiness engineering support to ensure the fleet of 11 helicopters remains mission ready.

Kgobe says the Rooivalk project is indicative of the symbiotic relationship between Denel Aviation and the SAAF. "We are always ready to provide technical and ground support to ensure the operational readiness of the Air Force's fleet."

This relationship was strengthened last week with an agreement in which Denel Aviation

will continue to deliver vital maintenance services to the SAAF, leading to continued airworthiness and the upkeep of air assets.

"This is a win-win situation for both Denel and the SAAF which results in the retention of high-level critical skills, a focused service delivery and cost effectiveness for the SAAF," says Kgobe.

The company recently received a "zero defect report" from the SAAF to confirm that all 11 Rooivalk helicopters have been upgraded to block 1F baseline standards.

Excellent feedback

Denel Aviation is receiving excellent feedback from the SAAF – and especially from 16 Squadron at Air Force Base Bloemspruit – where the first batch of helicopters has now been flying continuously since April 2011.

Dewald Steyn, the project manager: Rooivalk, at Denel Aviation says the performance of the aircraft is being closely monitored and evaluated from a design and development perspective.

The helicopter has exceeded the expectations and no major maintenance or repair work has thus far been required.

High standards in health, safety and environmental management

Denel Aviation (DAV) has met all the internationally recognised requirements for occupational health and safety as well as environmental management required in terms of OHSAS 18001:2007 and ISO 14001:2004.

The company successfully achieved certification in both OHSAS 18001:2007 and ISO 14001:2004. This is a huge achievement for the company as it demonstrates its commitment to maintain an effective Safety, Health and Environment (SHE) Policy.

"It means that we are able to meet our present needs without compromising the ability of future generations to meet their needs and we provide a safer environment to work in," said Patricia Ramalibana, Manager Safety, Health and Environment. "It also improves our reputation and increases our opportunities to gain new business with other environmentally cautious companies and it minimizes risks of downtime through accidents."

Patricia said these certificates demonstrated DAV's commitment to meet legal obligations and the maintenance of compliance to them, while it is a possible cost savings from public liability insurance premiums.



■ Keeping high standards.. From left Samela Nomxanya - SHE Advisor, Patricia Ramalibana - SHE Manager, Arno de Beer - SHE Advisor

"It provides a robust internationally recognized system to maintain and continually improve health, safety and environmental management," she added.



Denel test pilots spread their wings into Africa

Experimental test pilots and flight test engineers from Denel Aviation are now taking their unique skills and experience to clients in countries across Africa.

The company now has a mobile telemetry support vehicle which is capable of supporting flight tests at remote locations, says Mike Kgobe, the Chief Executive Officer of Denel Aviation. In the past this highly-specialised test flying could only be conducted within South Africa.

Mike says this service is part of Denel Aviation's initiative to grow its business in Africa. "We are taking our highly-skilled pilots and engineers as well as our state-of-the-art technology to the client, cutting the costs and efforts to fly the planes out to South Africa for testing."

Growing markets

The company is also expanding its maintenance and repair services to the rapidly growing number of military and civilian aircraft criss-crossing the continent.

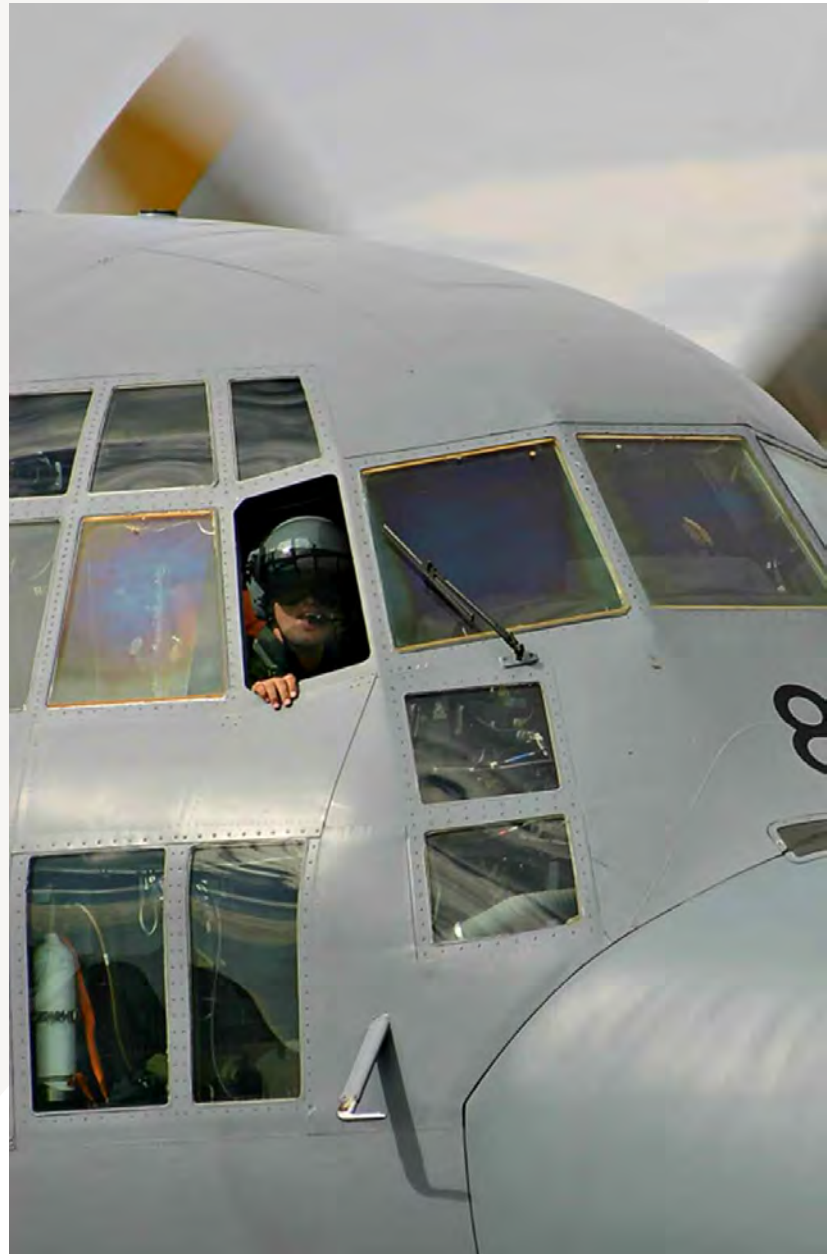
Experimental flight testing is one of the specialised services provided by Denel Aviation. The test pilots and flight test engineers have the responsibility to ensure that every aircraft that leaves the company's facilities following maintenance or repair work is in top shape and ready for full flying duties.

"Our primary responsibility is aviation safety," says Derick Matthee, the Manager of the Flight Test Centre. "Once the aircraft has passed our flight testing the client can be absolutely assured that it is 100% safe and ready for regular flying duties."

International clients

The list of work successfully done for international clients is growing by the day. On the fixed wing side DAv recently completed engine development testing for the Hawk-120 Lead-in Fighter Trainer acquired by the SAAF, did air-to-air refuelling testing between a Mirage III and an IL78 Tanker and supported the establishment of the Gripen Flight Test Centre at Air Force Base Overberg.

The recent delivery of 12 Cheetah fighter jets to the Ecuadorian Air Force (FAE) was preceded by extensive flight testing and the training of the FAE pilots by Denel Aviation.





Local aerospace industry's readiness in participating in global boom

Opinion piece by Ismail Dockrat, CEO, Denel Aerostructures

As South Africa's aerospace industry responds to the rapidly changing global environment, its future will be shaped by a number of vital decisions on fleet acquisition that government must take in the next 24 months.

The industrial participation benefits associated with such acquisitions can serve to strengthen the local advanced manufacturing industry and accelerate South Africa's aims to become a global player in the aviation and aerospace sectors.

At least three major aircraft acquisition packages are on the state's agenda. SAA is engaged in a major exercise of fleet renewal to replace its long-haul fleet with more fuel-efficient aircraft. SA Express has announced its intention to introduce new generation planes on its regional routes and the SA Air Force is considering strategic options to strengthen its tactical transport capabilities, protect the country's extensive coastline and combat the scourge of piracy in southern waters.

Global interest

The interest among global original equipment manufacturers to deliver aircraft for each of these acquisition packages are high and a large number of offers have already landed on the tables of the decision-makers. It is standard practice across the world that such bids will not only be evaluated on the basis of cost but also on the offset value (i.e. industrial participation) and local content benefits that manufacturers can bring to the table to support the country's developmental objectives.

The international experience has shown that offset offers can cover a range of economic activities – from investments in manufacturing to support for training initiatives to firm contracts for the on-going maintenance, repair and overhaul work to be performed on the new fleet.

The South African government has already indicated its strong support for the aerospace industry in a number of defining policy documents. The Industrial Policy Action Plan (IPAP) identifies aerospace as a cluster with "the potential for long-term advanced capabilities."

Similarly, an Aerospace Sector Development Plan has been drafted jointly by the departments of Trade and Industry and Science and Technology to "manage aerospace as a priority sector" and create an enabling environment for the growth of the industry.

Future growth

These policy formulations have already led to tangible results. In September a Joint Aerospace Steering Committee was announced to bring together all stakeholders – government departments, the private sector, industry bodies, finance institutions and research and development bodies – in a single representative forum to advise on the future growth of the sector.

There is optimism in the industry that these developments, collectively, will lead to a surge in the advanced manufacturing sector of the country and a deepened understanding of the value it can add to the South African economy.

In its recent country report on South Africa the respected research house, Oxford Economics, notes that South Africa's aviation manufacturing sector generates R1.8 billion direct and R4.6 billion indirect benefits to GDP. It directly employs some 7 000 people and supports an additional 25 000 jobs through the supply chains.

Most successful industrialising economies – including our BRICS partners, Brazil, Russia, India and China – are turning to aerospace as a key industry to be developed, nurtured



and, if need be, supported through state-sponsored initiatives. In South Africa, companies such as Denel Aerostructures, Aerosud, Cliff's Way and Dailiff are developing into global players as manufacturers of complex structures and specialised parts for major manufacturers such as Airbus, Boeing, Embraer and Bombardier.

Boom for aerospace industry

Despite the global economic recession, the international aerospace industry is experiencing a boom time. Globalisation has led to an unprecedented demand for air travel, spurred on further by the growth in

developing economies such as China, India, Brazil and Turkey.

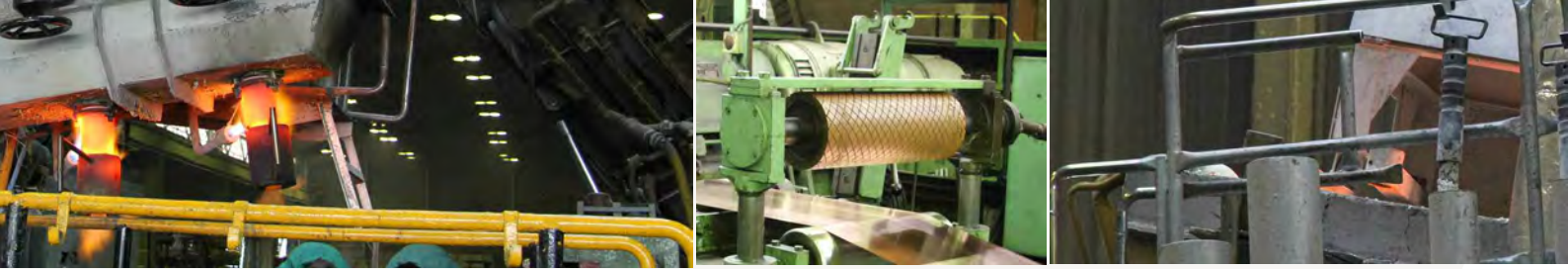
The major original aircraft manufacturers such as Boeing and Airbus are pushing the boundaries of design and development of new aircraft in the long-haul segment – most notably in the use of advanced materials such as composites in the manufacturing processes.

Local companies such as Denel Aerostructures are well-positioned to take advantage of this new wave of aircraft-manufacturing thanks to timely investments made in composite technology and experience gained on projects such as the Rooivalk helicopter and the Airbus A400M.

The track record of the local aerospace industry clearly shows that we have the collective knowledge, technology, facilities and experience to participate in multinational programmes – from the design stage through engineering, industrialisation and manufacturing.

The new acquisitions and the prudent management of the offsets can strengthen the industry and ensure the long-term sustainability of the South African aerospace sector.





Denel PMP contributes to the safety of fighter pilots

PMP has started with the local production of power cartridges for the ejection seats of Gripen fighter aircraft.

The company is proud of the fact that it currently manufactures most of the ejection seat cartridges in aircraft flown by the South African Air Force, says the CEO of Denel PMP, Carel Wolhuter. "This is a vital contribution PMP is making in ensuring the safety of our SAAF personnel," he said.

The explosive cartridges are fitted below the pilot's seat. In an emergency situation an ejection handle is pulled which jettisons the aircraft's canopy and propels the pilot away from the stricken plane before a parachute is deployed to carry the pilot to safety on the ground.

Wolhuter says PMP produces the ejection seat cartridges under licence from British company, Martin-Baker, the world's largest manufacturer of ejection seats.

The acquisition of new aircraft for the SANDF, including the JAS-39 Gripen fighter and the Hawk



lead-in fighter trainer, opened the scope for PMP to widen its product base and move towards the production of power cartridges.

"We have successfully qualified the ejection seat cartridges for the Hawk and Gripen aircraft and the Hawk is currently flying with proudly South African manufactured components," said Wolhuter.

The industrialization of the Gripen cartridges was done at PMP and monitored by Martin Baker. Five complete sets of locally built cartridges were tested at Martin-Baker's test chambers, while five sets of Martin Baker cartridges were tested at PMP to verify the build quality and test results between the two facilities. This was a prerequisite before local production could start.

PMP's Power Cartridges department started off as a part of the company's small calibre division but was moved to a separate facility in 1990. The team was later strengthened with personnel from Advena Laboratories.

Since then PMP has gained experience in pyrotechnical systems, the design and management of high-technology system support, quality management and an excellent track record of customer support.

The product range includes cable cutting cartridges, parachute deployment cartridges, crew escape systems and canopy fragmentation systems.



Image: Hoo Leng Siong



Denel Overberg Test Range provides telemetry launch support

Two telemetry specialists from Denel Overberg Test Range and a high-technology mobile telemetry station are leaving for French Guiana in South America to track the launch of the Vega space mission.

Abrie van der Walt, CEO of Denel Overberg Test Range, says its participation in the launch, scheduled for May, confirms international confidence in Denel's expertise, resourcefulness and experience in space science that has been developed over the past decade.



■ Herman Steenkamp and Nico du Plessis, telemetry specialists from Denel Overberg Test Range, putting a segment of the antenna dish into a container which will be shipped to Kourou in French Guiana for launch support.

French Guiana is an overseas region of France and is on the north Atlantic side of South America.

Two telemetry experts, Leon Korkie and Deon van der Hoven, will assemble the mobile telemetry station on site, integrate it with the French Space Agency telemetry kit and participate in the qualification of the telemetry network before supporting the actual mission.



■ Herman Steenkamp busy with calibrations on the mobile telemetry station, before it was packed to be shipped to French Guiana, for launch support by telemetry specialists from Denel Overberg Test Range.

Denel's mobile telemetry station will be used to improve coverage of the powered phase of the ascent of the launch vehicle shortly after launch from the Guiana Space Centre near Kourou until it is about to disappear over the horizon.

The Vega mission will carry two satellites, including a demonstration satellite, into a polar orbit. The launch vehicle was developed by the European Space Agency and the May launch of Vega VV02 follows on the successful launch of VV01 in February 2012.

Japie Venter, the Project Manager at the Denel Overberg Test Range, says the telemetry group completed preparations of the mobile telemetry station in record time that. It is now ready to leave for French Guiana. "We are very proud of our team that provides a reliable and responsive service to international clients," he says.

The Test Range has already successfully supported three missions in a five year contract with the French Space Agency and will provide telemetry launch tracking support to future European space launches.

