

# **DENEL AEROSTRUCTURES** MAKING THE TRANSITION



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**CEO** Ismail Dockrat discusses the restructuring programme that has contributed to this South African success story

## **DENEL AEROSTRUCTURES**

# NAKING THE TRANSITION

WRITTEN BY: WILL DAYNES RESEARCH BY: DAVID BROGAN



n the nearly two decades since 1994, air travel into South Africa has increased by approximately 70 percent. In fact, during the month long staging of the 2010 FIFA World Cup alone it is estimated that over one million foreigners visited the country. These figures go some way to highlighting the reason why the aviation sector in this part of the world has undergone such tremendous growth in recent times.

establishment of Atlas Aircraft Corporation in 1964, Denel Aerostructures is recognised as being one of the leading players in the sector as a priority for job creation and fields of aircraft development

manufacture and in Africa. The South company's core capabilities comprehensive include development, design, industrialisation and the assembly of fixed and rotary wing aerostructures for the global market. Past and

**70%** Increase in air travel in South Africa since 1994

present clients include the likes of Gulfstream, Saab, BAE Systems, AgustaWestland and its main customer, Airbus.

Today the company is led by chief executive officer, Ismail Dockrat. Having spent much of his career in the defence and aerospace industry, Dockrat joined Denel in 2006, first as the chief executive officer of Denel Aviation, before moving across to Denel Aerostructures in 2010. It was at this time that the company was in the midst of difficult economic times, caused through a combination of factors including inherited operational weaknesses and the on-going global economic downturn.

"At the time that I joined the business," Dockrat explains, "Denel Aerostructures was very much in need of undergoing a major transition in order to become a 21st century aerostructures manufacturing company. In order to bring about a major overhaul in our manufacturing processes we had to undertake a massive turnaround programme that consisted of eight core objectives."

The first thing the company needed With a heritage that dates back to the to do was align itself with South Africa's national aerospace objectives. The country's government has identified the aerospace

economic growth and Denel Aerostructures has made the concerted effort to become a leading proponent of its Aerospace Sector Development Plan for the country.

"One of the most important things I was tasked with from an early stage," Dockrat

continues, "was devising a credible business plan on which a recapitalisation of the business could be based. Successfully doing so has allowed us to turn the corner from being a loss making business." Equally as important in this context was the restructuring of the company's work programmes.

As well as bringing several programmes to a constructive end, this prompted the company to sit down with Airbus and renegotiate its existing contracts for the A400M military transport aircraft programme. It was the implementation of a focused operational turnaround that allowed



Denel Aerostructures is home to the largest special processes facility in the southern hemisphere



Chief executive officer. **Ismail Dockrat ioins Denel** 

these renegotiations to be successful. This turnaround has led to an improvement in the company's throughput, the introduction of lean manufacturing principles throughout its operation and an increase in its delivery performance. These factors have prompted Airbus to make a long-term commitment to Denel Aerostructures.

Due to the state of the business at the time of Dockrat's arrival, one of the more necessary steps that needed to be taken was a process of cost-cutting initiatives. This included reducing the physical footprint of the company by twothirds. By reducing the amount of ground it occupied from 75,000 square metres to 25,000 square metres, and by reorganising its production work flows, the company was able to make considerable savings in terms of rental, labour and infrastructure costs.

Being a time of great change, it also fell to Dockrat and those around him to improve the motivation levels of the company's workforce. "We have always had a fantastic team here," Dockrat enthuses, "however motivation levels at the time that I joined were not where they should have been. To improve this we put in a lot of time and effort to really connect with our workforce, engaging with them on all levels and involving them in the decision



making process regarding how we can take the business forward."

Another complex undertaking required the company to effectively overhaul its entire supply chain management system. This process allowed it to delegate certain areas of work to local suppliers, things like simple sheet metal work, while refocusing itself on more complex tasks that mix high-end machining and hand-layup composite work with a design element.

**'BY OVERHAULING ITS ENTIRE SUPPLY CHAIN MANAGEMENT SYSTEM, THE COMPANY** WAS ABLE TO DELEGATE CERTAIN AREAS **OF WORK TO LOCAL SUPPLIERS**"

"One of the most exciting things for us right now," Dockrat states, "is the development of new business. We have a strong foundation of work with the likes of Airbus and Gulfstream and we are now actively engaging with all major aerospace OEMs and tier one aerostructure manufacturers to secure new work for the company."

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Denel Aerostructures' capabilities include advanced design and engineering. Above is an image of the wing to fuselage fairing size in relation to a person

> Last, but not least, the final objective of the turnaround was to achieve good financial governance and a strong control of all

internal controls. Achieving this has helped reassure the company's stakeholders that it is managing its balance sheet in a responsible manner. "When it comes to all the different aspects of our turnaround programme," Dockrat says, "we are immensely pleased that we have managed to meet all of the objectives that we first set ourselves back in 2010."

Arguably the most interesting project that the company finds itself involved in today is the wing-to-fuselage fairing (WFF) work being carried out on the A400M for Airbus. A highly technical undertaking, the WFF is a large structure that sits on top of the aircraft where the wing section connects to the fuselage.

**"ARGUABLY THE MOST INTERESTING PROJECT** THE COMPANY IS INVOLVED WITH IS THE WING-TO-FUSELAGE FAIRING (WFF) WORK BEING **CARRIED OUT ON THE A400M FOR AIRBUS**"



Denel Aerostructures is involved in three work packages for the A400M, the top shells, ribs swords and spars and the wing to fuselage fairing



"Made up of hundreds of composite panels," Dockrat details, "the WFF has an aluminium frame, the lightness of which has contributed greatly to Airbus' efforts to reduce the overall weight of the aircraft. In the process of creating this structure we have developed a global excellence in terms of weight saving for our industry and that is something we are extremely proud of."

The structural and system interfaces of the WFF meant that Denel Aerostructures had to have a digital infrastructure in place that allowed it to communicate and exchange information in real time with all other

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Denel Aerostructures team - together we "Make It Fly"

partners within the A400M programme. "We are very excited with the progress we have made to date with this programme," Dockrat says, "and as we now enter the production phase we find ourselves in the perfect position to initiate an accelerated ramp up for Airbus." Last November, the company made its presence felt at the 2012 AIRTEC International Aerospace Supply Fair, where Dockrat himself delivered a keynote speech. "Some of the most interesting talks at the conference," he reveals, "were those that examined, at a broader level, what the future will hold for air travel. I personally feel that this century



Denel Aerostructures' world class capabilities include an assembly line; above is the top shell assembly

Denel Aerostructures specialises in advanced manufacturing. Two in house Zimmermans allow for expertise in thin web machining

### **"FUTURE PLANS INVOLVE ESTABLISHING** A GREATER FOOTPRINT IN OTHER AEROSPACE MARKETS, NAMELY THE BUSINESS AND **COMMERCIAL AIRCRAFT SECTORS**"

will be a hugely exciting and defining time for everyone involved in this industry, particularly when you look at all that has been achieved to get us to where we are today and all that is predicted to come, what with the rise of numerous developing economies. It certainly makes for exciting

reading for us when you think that we have really only just touched the tip of the iceberg in terms of how we are applying advanced materials in composite structures in the development of aircraft."

Looking ahead, Denel Aerostructures' future plans involve establishing a greater

footprint in other aerospace markets, namely the business and commercial aircraft sectors. "As a result of the work we have on-going with Airbus," Dockrat says, "as well as that which we have carried out for the likes of Saab and BAE Systems, we believe we have earned a very strong reputation in the marketplace and that is something we want to build on."

In the commercial aircraft sector, two major procurements on the horizon, involving the regional, state-owned carrier SA Express and South African Airways respectively, bode well for Denel Aerostructures. "What we are doing," Dockrat concludes, "is actively pursuing

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Ismail believes in being hands on within the factory. Mr Dockrat interacts with the shopfloor, and is taught by his colleagues what their job entails

> engagement with the likes of Embraer, Bombardier, Airbus Commercial and Boeing Commercial in order to position ourselves appropriately to win business on these programmes. While we have to ensure that we remain competitive in the marketplace, we must also remain realistic and that means identifying the type of work that fits into our technology base. This is what we believe will be the key to our success." BE

For more information about **Denel Aerostructures visit:** www.denelaerostructures.com



#### **DENEL AEROSTRUCTURES**

Astro Park, Atlas Road, Bonaero Park, Kempton Park, 1619, Gauteng, South Africa

T +27 (0) II 927-2437 www.denelaerostructures.com

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