

Air Traffic and Navigation Services Company Limited

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WELCOME ADDRESS BY ATNS CEO MR THABANI MTHIYANE

2014 ATNS AVI AFRIQUE AVIATION INNOVATION SUMMIT

Acknowledgements:

- National Department of Transport DDG: Aviation, Mr Zakhele Thwala
- NAVISAT Chairman and CEO, Eng. Samy Fahmy Mostafa Turk
- Chairman and CEO of Aeroportos Mozambique, Mr Emanuel Chaves
- CANSO Africa Office Director Ms Boni Dibate
- Head of AN Systems Engineering, Sudan Civil Aviation Authority, Mr Ehab M. Mahgoub
- Representatives of government departments and their entities
- Representatives of ANSPs and CAA Departments present here today
- CEOs and MDs of Companies
- My fellow Executives
- ATNS Staff
- Invited Guests
- Members of the Media

I'm indeed privileged and honoured to welcome you all to the ATNS 2014 Avi Afrique Aviation Innovation Summit.

2014 marks the celebration of our 21st anniversary as one of Africa's leading air navigation services provider. We have come a long way, and as a mandated public entity within the Department of Transport (DoT), we are indeed proud to have made a significant contribution within the South African aviation industry, and elsewhere. We have seen the growth of the industry, the challenges, the achievements, as well as innovative ways of delivering world-class safety and operational performance.

Following on the success of the two previous AVI AFRIQUE summits, we have once again invited international and local experts, academics and industry decision-makers to contribute to information-sharing, in the field of aviation and air navigation services - at this prodigious event, the AVI AFRIQUE Africa Aviation Innovation Summit 2014. This year's Theme is "*The Impact of Research & Technology on Sustainability and Innovation in Africa*". In light of this theme, the Summit is held at the Council for Scientific and Industrial Research (CSIR) International Convention Centre, where we are gathered today.

As a collaborative platform for the local and international aviation industry, this Summit provides room for critical insight into developments in aviation.

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Company Registration No. 1993/004150/06

Directors: MD Mamashela (Chairman), DST Mthiyane (Chief Executive Officer), MW Ndlovu (CFO)
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Ladies and Gentlemen, as we continues to serve the Air Traffic Management community, deploying leading technologies, as well as contributing to continual improvement of safety levels, we understand that as an entity, our excellence in business can only be appreciated and valued when we ensure financial, social and environmental sustainability. We have prioritized sustainable development by minimizing our own carbon footprint, and seek to continue developing and assisting our stakeholders to minimize the environmental impact of their operations - through flight efficiency programmes and other “best practices” initiatives.

In 2011 we established a technology research and development (R&D) unit at ATNS. We have since entered into formal partnerships with academia and other global air traffic and navigation service providers. This unit funds research, individual students, and builds its skills capacity with a focus on results that can be used for the immediate benefit of the industry.

Innovation supported by sustainable research and development is critical in all spheres of transport. And aviation is no exception. It ensures that the future does not look bleak for successive generations. ATNS will continue to ensure that proper long-term organisational planning is in place.

Ladies and Gentlemen, allow me to take you through the Avi Afrique Summit journey - where we started and where we are. We hosted the inaugural AVI Afrique Africa Aviation Innovation Summit in 2012 – at the Innovation Hub, just a stone’s throw away from where we are today. That year’s theme was “*an integrated approach to research and development and innovation in aviation on the African continent*”. Its initial focus was on South African organisations but as was envisaged then, our pan-African role players were to be include at future annual events.

Delegate organisations and guest speakers represented at the summit included Dr Sandile Malinga, CEO of the South African National Space Agency (SANSA), Beeuwen Gerryts, chief director of the Department of Science and Technology, Professor Sunil Maharaj from the University of Pretoria (UP), and Kenneth Miya, winner of the 2011 Emerging Genius Popular Mechanics Inventor of the year award.

Kenneth Miya, of Mpumalanga, was representative of the type of home-grown, African innovation that ATNS seeks to foster through the summit. He invented a cellphone-based security system for domestic and other mobile security applications that is in the final pre-manufacture stages of development.

Just to mention but a few of other above-mentioned’s notable comments at the inaugural Summit, while Professor Sunil Maharaj of UP accepted that innovation stems from many quarters he acknowledged that the majority of feasible new concepts emerge from academia and, in the aerospace industry in particular, from those completing or who have completed their PhD theses. One of the challenges, he says, was “*meeting the required growth in the number of graduating PhDs. South Africa is at present maintaining a consistent supply of graduates but has yet to meet the growth demands, particularly those set forth by the national planning commission which seeks 5 000 doctoral degrees per year by 2030*”.

Dr Sandile Malinga of SANSA demonstrated South Africa's space programme with a focus on its navigation services to air traffic. Dr Malinga argued that “*It is the common misconception that navigation is handled by Global Positioning System (GPS) alone yet there remains a strong reliance on magnetic and other navigation instruments, particularly as backup systems. In addition, information transmission networks incorporating low earth orbit and space systems can reliably reach any place on earth and therefore form a fundamental support*”

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system for those networks’.

Beeuwen Geryts discussed the innovation challenges, characteristics and innovation gaps in aviation and the aerospace domain. He said *“South African organisations are well integrated into the European R&D tracks and predominantly develop technologies. South African organisations also act as sub-contractors to large aviation original equipment manufacturer (OEM) businesses in Europe and North America while being OEMs themselves to developing nations”.*

In 2013, the Summit theme was **“An integrated approach to innovation, Research and Development in aviation”**. Because we had invited global experts to the event, we did not restrict ourselves to the continent per se.

Once again, **Professor Sunil Maharaj** focused on the many challenges faced in South Africa, Africa and indeed the world in terms of knowledge economy, R&D and high level human capital development. He described South Africa’s National Development Plan as *“our gospel document”* and continued that *“everything we do should be based on this”*.

Louis Aartman, from the NLR in Netherlands, delivered a paper on *“How an independent air transport research capability contributes to innovation”*. With tremendous growth in populations comes a greater demand for travel. According to Louis, the 42 hubs for international travel currently in use will increase to 92 by 2040. What Aartman stressed, however, was *“a consistent focus on the concept of people, planet, profit – this is the balance that needs to be brought into aviation, innovation and safety”*.

“The Integration of unmanned aircraft into civilian airspace” paper was delivered by **Chris Burger**, Senior Researcher here at CSIR. Though unmanned flight remains a contentious issue among the aviation community, Chris put forward his views on unmanned aircraft, including the cost and practical application of removing human factors from flight.

“In modern aircraft pilots relay their control inputs to the back of the aircraft with massive data communications infrastructure required to make this happen given that they are placed at the front of the aircraft. Approximately 25% of the cost of an airframe is associated with accommodating pilots in the nose. An obvious solution to remedy this cost would be to remove pilots and aircrew from aircrafts,” he said.

Tshepo Peege, the then Chief Director: Aviation Safety and Security at the Department of Transport, said *“In this global village we live in, we seize opportunities to innovate. Innovation has proceeded to the point that unmanned aerial systems or remotely piloted aircraft systems have been used successfully for military operations”*.

Ladies and Gentlemen, Air traffic service delivery is dynamic in that integration of air traffic and air space management must be delivered seamlessly and in a manner that is safe, efficient, economical and sustainable.

Aarti Panday from Technology Innovation Agency – who is here today, helped sensitise those who were unfamiliar with the innovation/funding paradigms, by giving a generic framework from which delegates could look at their projects and understand funding challenges.

“We need to convert the knowledge, technologies, products and processes that come out of our knowledge,

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science, technology and engineering work into an increased wealth experienced by business and the country and an improved quality of life for citizens in general. The organisations in this network are typically universities, private sector, NGOs, government agencies and even international funders,” she said.

Another important paper delivered was by Michele Moruzzis from Thales Air Systems, titled “*The co-habitation between radars and wind-farms*”. He said that various sustainable technologies were available worldwide, with wind energy appearing as the most mature in terms of technological advancement. Of course Malcolm Spaven from Aviatica Ltd spoke about Wind farms and radar – “working towards a solution”.

There was also a Panel discussion which handled the topic “*Integration of unmanned aircraft in civilian airspace*”. Interesting comments I could pick up were that “*Integrating unmanned aircraft (UA) into civilian airspace is a complex issue – although tests need to be conducted in controlled circumstances and aircraft have to be extensively validated, it is feasible*”.

Ladies and Gentlemen, Avi Afrique Aviation Innovation Summit is one of ATNS’ 21st Anniversary Celebrations Flagship Projects and the highlight of October Transport Month.

Topics for discussion in this year’s Summit are “*The impact of innovation by the Aviation Industry on environmental sustainability*”. What impact does the new innovations technology/ systems by aviation industry have in the environment. Does the new innovation of technology/ systems consider the environment? How efficiency does this has? What benefits does this add to the environment? And How has Aviation innovation contributed to the improvement of environmental sustainability? What are the pros and cons of aviation innovation on environmental sustainability?

The second one is “*Innovation, research & development for sustainable technology in a global aviation environment*”. What Research and Development in aviation have been conducted to make global aviation efficient and environmentally-friendly? Does technology innovation be sustainable in the midst of global environmental changes?

NAVISAT Chairman and CEO, Eng. Samy Fahmy Mostafa Turk will deliver a paper titled, “*ANSP’s as Innovators towards environmental sustainability, leaders or followers?*” He’ll cover the following, namely “Are ANSP’s involved in innovation towards environmental sustainability? If ANSP’s are involved, what are they doing or what did they innovated, which is environmentally friendly or took the environment into consideration”.

Chairman and CEO of Aeroportos Mozambique, Mr Emanuel Chaves’s paper is titled “*Innovation challenges facing ANSP’s / Aviation Industries*” Mr Chaves will provide some solutions on how to overcome these challenges. Other topics include “*The impact of innovation on Air Traffic Safety on the continent, (problems, trends, innovations contribution to air traffic safety, etc.)* and “*Space Technologies and the impact thereof on the environmental sustainability in the continent*”.

I’m being informed that Mr. Siya Xuza is here. Those who don’t know him should wait for the MC to introduce him formally. He is our Keynote Speaker.

For Panel Discussions we have very knowledgeable moderators in Dr Shael Harries, Principal Environmental Consultant, CRO Environmental and Mr Chris Burger, Senior Research, CSIR, Meraka Institute.

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Today, we mark new beginnings as we pass our 3 year mark - a ground-breaking milestone – that of contributing towards the improvement of Africa’s economy and its safety record, through innovation, research and development. We are united in delivering safe skies in the most efficient, customer-focused and environmentally sustainable way.

I hereby declare the 2014 ATNS Avi Afrique Aviation Innovation Summit Open!

I THANK YOU.

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