



# AERONAUTICAL SOCIETY OF SOUTH AFRICA

(ASSOCIATION INCORPORATED UNDER SECTION 21)  
REGISTRATION NUMBER 2000/026325/08  
P.O. BOX 11928 DIE HOEWES 0163  
TEL / FAX: (012) 662 5113  
EMAIL: [admin@aessa.org.za](mailto:admin@aessa.org.za)  
WEB: [www.aessa.org.za](http://www.aessa.org.za)



A DIVISION OF THE ROYAL AERONAUTICAL SOCIETY

---

## AeSSA Newsletter –October 2010

---

**EDITORIAL – Interview and Article provided to Engineering News for their September Edition**

### **Society prepares for IASSA 2010**

The International Aerospace Symposium of South Africa (IASSA) 2010 will be held from November 23 to 25, in Cape Town, and will be convened by Aeronautical Society of South Africa (AeSSA) and the Flight Test Society of South Africa.

IASSA is a yearly event that brings together the full spectrum of aerospace engineers, academics, researchers, students and industry leaders in South Africa and their international counterparts, says AeSSA president Gert Jansen van Rensburg.

The intent for IASSA, is to become the leading forum for the sharing of developments in aerospace technology in South Africa, networking and partnering to carry the South African aerospace industry to greater heights, he says.



### **STORMY SKIES**

The declining local demand for traditional defence - based projects, besides other challenges, does not bode well for local aerospace growth. A good strategic plan, investment and determination is needed to mitigate this

IASSA 2010 will focus on a number of themes including avionics, systems and automation; certification, testing and flight operations; aerospace manufacturing, materials and structures; aerodynamics, computer modelling and simulation; propulsion systems for aerospace vehicles; and, policy and research and development for South African aerospace.

Jansen van Rensburg explains that it provides a forum free of marketing presentations, dedicated to the exchange of ideas and discussions of recent advances in aerospace engineering and related technologies from a scientific as well as an industrial applications point of view. It also incorporates the Technical Aerospace and Unmanned Systems Conference.

**Aerospace Sector Plan:** AeSSA reports that the Department of Trade and Industry and the Department of Science and Technology are developing an aerospace sector development plan, which aims to present government's strategic aerospace intent.

Another significant development in the industry includes the International Civil Aviation Organisation's (ICAO's) Pan African training coordination and harmonisation initiative, which was launched last year, to establish the framework for harmonisation of aviation training in Africa, explains Jansen van Rensburg.

A workshop, led by the National Aerospace Centre of Excellence and ICAO, was held in August at the Council for Scientific and Industrial Research, to establish training strategies for aviation safety in Africa.

He adds that AeSSA supports these initiatives, in an effort to ensure that South Africa becomes the service provider of choice and to render high-standard aviation training services on the continent.

**Turbulent Skies:** AeSSA reports that a declining order book of aerospace-related work from South African-based institutions, notably the defence force and research entities, are among the challenges currently facing the local aeronautical industry.

The current economic climate, which is affecting most of the first world's aerospace manufacturing output, coupled with the resilient rand and declining local demand for traditional defence-based projects, does not bode well for growth in potential export earnings in aerospace-related activities in the short- or medium-term, reports AeSSA.

He explains that, without the potential of long-term growth in the aeronautical industry, the possibility of attracting young engineers, technicians and technologists to the industry is hampered. As such, the number of professional development engineering cadres is limited and reliance on an ageing aeronautical engineering population is still strong.

However, there is a wealth of aerospace capability and knowledge and, with entrepreneurship and agility, there are niche areas in which South African-based companies are making inroads into the international market, he says.

"Aerospace needs to be recognised as a technology incubator which, once well established, can show significant returns to the country, not only in the aerospace domain, but in other sectors," he says. There have been successful high technology projects in South Africa and around the world that have lead to new ideas and ventures adding to economic growth, he says, adding that a good strategic plan, investment and the determination to make it happen, is needed.

## Durban Wings Club Safety Evening Virginia Airport

Maj Gen (Retd) Des Barker

Not intentionally, the aviation centres outside of Johannesburg and Pretoria have traditionally been starved of AeSSA activities and lecture programmes. Further interrogation of this state leads one to conclude that this oversight is most probably a result of the hub of aviation being centred in the Johannesburg/Pretoria region. The result, of course, is that AeSSA have not really grown in the other centres such as Kwa-Zulu Natal and Cape Province.



General aviation members of the Kwa-Zulu Natal aviation community listen attentively to the AeSSA Safety presentations by Des Barker.

In an effort to address this shortcoming, Council decided that efforts would be launched to reach out to the greater Kwa-Zulu Natal and Cape Town areas, as part of the AeSSAs 'social responsibility' programme. Contact was made with Durban Wings Club's Chairman, Stuart Low who rallied together 75 general aviation 'people' to attend a Safety Evening at Durban's Virginia Airport.



To make up for the long absence of AeSSA in this part of the country, on 13 Aug 2010, Des Barker presented three lectures at the Durban Wings Club safety evening.

- "General Aviation Safety in South Africa; 1999 to 2010" – an overview of general aviation safety in South Africa over the past 11 years.
- "How Low Can You Go?" – an overview of the hazards of Low Flying.
- "The Fickleness of Human Judgement in the Low Level Display Arena" – an overview of 100 years of airshow safety.

A very successful effort at reaching out to the rest of South Africa and general aviation as part of our social responsibility at AeSSA. The intention is to make presentations in the Kwa-Zulu Natal and Cape Province regions on an annual basis.



## AeSSA Schools Support initiative

Rob Hurlin

The Society in 2009 decided to embark on a schools support initiative in the Pretoria region as a start. As the Society obtains funds from some of our Corporate Partners, it was decided that a proportion of these funds be earmarked for schools based aviation activities. In that regard as Rob Hurlin works closely with schools as part of his normal day.



So far Waterkloof High, Hatfield Christian School and Pretoria Boys High have aviation related clubs that were interested in taking part. Waterkloof High has a more formal aviation academy where a portion of their proceeds are geared towards flying training in full size aircraft. Each of these schools received R 2000



Pretoria Boys High used their funds on obtaining club identity media for their aviation club, Hatfield Christian School used their funds to purchase patch badges, as well as introductory flights at a flying training organization.

Waterkloof High used their funds to purchase materials and hardware for model aircraft, these same models were used in the AeSSA organized indoor event held in 2009, some of the entries went on to win a prize or two.



## Wits students build mock-up aircraft

Craig Law

The Industrial Development Corporation funded Blue Crane Development Agency (BCDA) in association with the School of Mechanical, Industrial and Aeronautical Engineering of the University of Witwatersrand (Wits) unveiled the SkyWake at the Africa Aerospace and Defence (AAD) exhibition in Cape Town during September.



The SkyWake Mockup at AAD 2010

The SkyWake is South Africa's first locally designed production built aircraft that suits both the recreational flyer and the flight school environment. The aircraft has been designed as a FAR 23 compliant Light Sport Aircraft.

The aircraft was designed by 2nd, 3rd and 4th year aeronautical engineering students from Wits. The design commenced in June 2006 and to date, fifty students have benefited from being involved in the project. The SkyWake mock-up was built by twelve enthusiastic students with little practical building experience on a very small budget. Even though the mock-up lacked the quality finish found on mock-ups at Oshkosh and Farnborough, the funders, industry representatives and the public commended the effort.

The goal of the project is to create a university-linked design and manufacturing platform for the establishment of a light-aerospace manufacturing industry in Somerset East, Eastern Cape. This will serve as a skills development catalyst for the aerospace industry, the focus being on complete aircraft design. Work has begun on a paradigm shifting six seat touring aircraft.

The BCDA has embarked on this venture to establish an aviation industry in Somerset East. The project incorporates a number of aviation developments including an airport, flying school and a light industrial park, all aimed at improving infrastructure and job

creation in Somerset East. All BCDA's projects are in line with the National Government's Industrial Policy Action Plan (IPAP) 2.



Work on the prototype aircraft will begin shortly.

Team 2008 taken at the Port Elizabeth Airport in front of a North American T-6G Texan(Front row L-R): Duncan Higgs, Ricardo de Carvalho, Greg Mumford, Andrew Wood, Brendan Gray, Craig Knowles, Michael Boer. (Back row L-R): Kierhan Brown, Sjouke Schekman, Jonathan Nash, James Reeves, Louis Biebuyck, Terence Herron, Kate Comrie.

## Society Patrons – John Weston

John Weston, a civil engineer, began the construction of his own aeroplane in 1907 at Brandfort, in the Free State. He lacked an engine with enough power so he dismantled the aircraft and shipped it to France. It is possible that John Weston based his design on a Voisin. In France he fitted a Gnome rotary engine (50hp) and flew it successfully (in France) in 1910.

When he returned in 1911, the two aircraft he brought with him were clearly predominantly designed by the great French pioneer Henri Farman, although probably modified a little by Weston, who referred to them as 'Weston Farmans'.



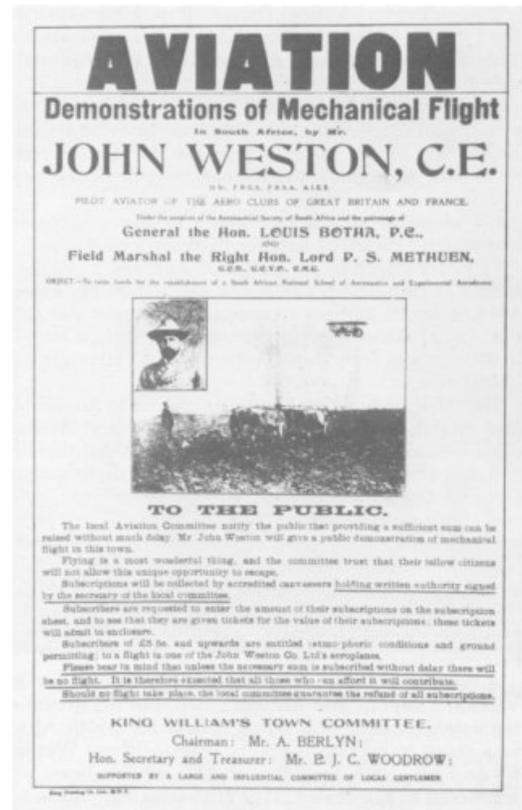
A Replica Farman Biplane



On 16 June 1911 John Weston made the first flight in Kimberley establishing a South African non-stop flight record of eight-and-a-half minutes in his Weston-Farman biplane. His energy and drive led to the formation of the Aeronautical Society of South Africa in 1911.

It was also the start of the John Weston Aviation Company of South Africa, which did much to popularise flight in the country by touring the main centres and offering flights to the public.

One of his passengers at Turffontein Racecourse in Johannesburg was the actress Cressie Leonard who recalled, *"I had dressed for the part in a close-fitting jersey costume, with no motor scarves to vex the propeller . . . The crowd roared and I could hear the distant clapping from the stand like rushing leaves."*



**AVIATION**  
Demonstrations of Mechanical Flight  
In South Africa, by Mr.  
**JOHN WESTON, C.E.**  
O.E. 1904, 1906, 1910  
FIELD AVIATOR OF THE AERO CLUBS OF GREAT BRITAIN AND FRANCE.  
Under the auspices of the Aeronautical Society of South Africa and the patronage of  
General the Hon. **LOUIS BOTHA, P.C.**  
and  
Field Marshal the Right Hon. Lord **P. S. METHUEN,**  
G.C.B., G.C.V.O., G.C.S.I.  
OBJECT - To raise funds for the establishment of a South African National School of Aeronautics and Experimental Aviation.

**TO THE PUBLIC.**  
The local Aviation Committee notify the public that providing a sufficient sum can be raised without much delay, Mr. John Weston will give a public demonstration of mechanical flight in this town.  
Flying is a most wonderful thing, and the committee trust that their fellow citizens will not allow this unique opportunity to escape.  
Subscriptions will be collected by accredited canvassers holding written authority signed by the secretary of the local committee.  
Subscribers are requested to enter the amount of their subscriptions on the subscription sheet, and to see that they are given tickets for the value of their subscriptions; these tickets will submit to engineers.  
Subscribers of 25 sh. and upwards are entitled (subject to conditions and ground permitting) to a flight in one of the John Weston Co. Ltd's aeroplanes.  
Please bear in mind that unless the necessary sum is subscribed without delay there will be no flight. It is therefore essential that all those who are anxious to see the demonstration should get their tickets as early as possible.  
Should no flight take place the local committee guarantee the refund of all subscriptions.

**KING WILLIAM'S TOWN COMMITTEE.**  
Chairman: Mr. A. BERLYN;  
Hon. Secretary and Treasurer: Mr. E. J. C. WOODROW;  
SUPPORTED BY A LARGE AND INFLUENTIAL COMMITTEE OF LOCAL GENTLEMEN.  
Day Closing at 10.00 P.M.

## FORTHCOMING EVENTS

We are nearing the end of the year, and we have two events that will be done in November, IASSA 2010 to be held in the fairest Cape at Gordon's Bay from 23 Nov to 25 Nov.



Then we are also hosting an Intervarsity Model Aircraft Challenge being organized between the students of WITS and TUKS to be held on 19 November 2010 at a venue still to be advised.

Next Year in February we will be organizing a centennial lecture known as the John Weston Memorial Lecture. We have the good fortune that the current President of the RAeS David Couzens will be visiting the RSA at that time and has agreed to visit our region and attend the lecture. We will shortly be deciding on a suitable topic and speaker for this prestigious event celebrating 100 years of the Society in South Africa.

