Aeronautical Society of South Africa

(Association incorporated under section 21)
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100 YEARS

A Division of the Royal Aeronautical Society

AeSSA Newsletter – March 2011

EDITORIAL – A Century of the Society

Over the past century the Aeronautical Society of South Africa (AeSSA) has been integral in the development of South Africa's aeronautical engineering industry, working hard for many years to empower the aeronautical engineers of this country and put South Africa on the map for aerospace engineering. This journey was long, tedious and difficult, but the persistence and passion of the AeSSA members across the century has made it possible for the Society to be the success it is today. This article honours every single member of this journey.

In 1911 the Society was formed in a motion led by Dr FV Engelenburg and seconded by Mr. W Burningham White. The Hon. Johann Rissik was nominated as the Society's first President. The president was a very influential man in his time; he was the survey general of the Transvaal and was instrumental in the formation of Johannesburg. Having a man of such stature as president of the society showed their commitment and the potential to change South African aviation for the better.

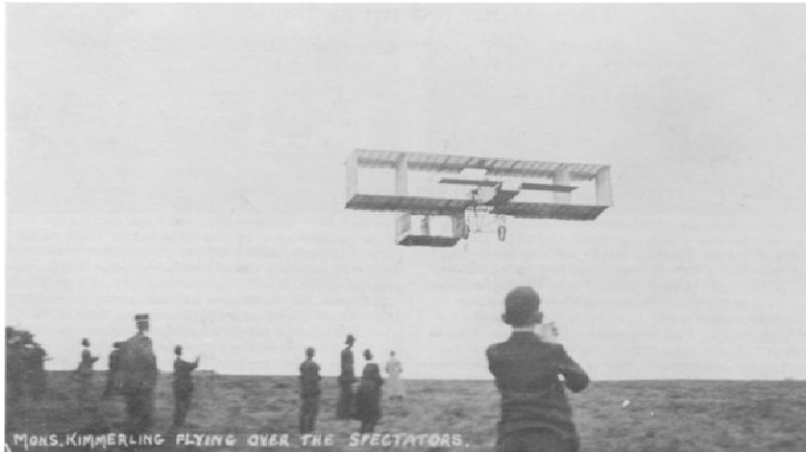
The Hon Johann Rissik

Unfortunately even the loftiest of goals can be affected by real world events. With the start of the Great War the society thought it best to suspend their activities, however this led to a unintentional decline in the their functioning over the next twenty years.

As the Society was not fully functional at this time some members of the South African Air Force (SAAF) became interested in the Royal Aeronautical Society (RAeS), and after deliberation it was decided to open a branch of the RAeS in 1945. This led to South Africa becoming involved with international aeronautical development.

This branch flourished as a lot of interest was shown by South African aviators, and in 1946 the RAeS became a member of the Associated Scientific and Technical Societies of South Africa (AS & TS). This shows the growing influence of the society and the growth of the aeronautical industry in South Africa.

This interest in the society led to RAeS being changed from a branch to a division in 1949, renamed the Southern Africa Division of the RAeS. This division opened up branches in major South African cities. Later in 1966, with the start up of local aircraft manufacturing, the society tried to become independent of the London head office but unfortunately was not successful.



First Flight in South Africa done by Ms Kimmerling in East London

The South African Council for Professional Engineers (SACPE) was formed in 1968 after the broadcasting of the Professional Engineering Act No. 81 through parliament, although they constituted no representation for Aerospace professionals, which sent ripples of disappointment and chagrin through aeronautical circles, members of which could be represented through the SA Institute of Mechanical Engineers. Aeronautical industries strived for national representation, and in 1970 a section of the RAeS broke away to form an indigenous organization called the Aeronautical institute of RSA, which appealed for accreditation by SACPE as registered professional engineers. Unfortunately, they were not to receive such accreditation for several more years.

THE DEMAND FOR AERONAUTICAL ENGINEERS:
A SELECTION OF NEWSPAPER ADVERTISEMENTS
THAT HAVE APPEARED SINCE LATE 1978

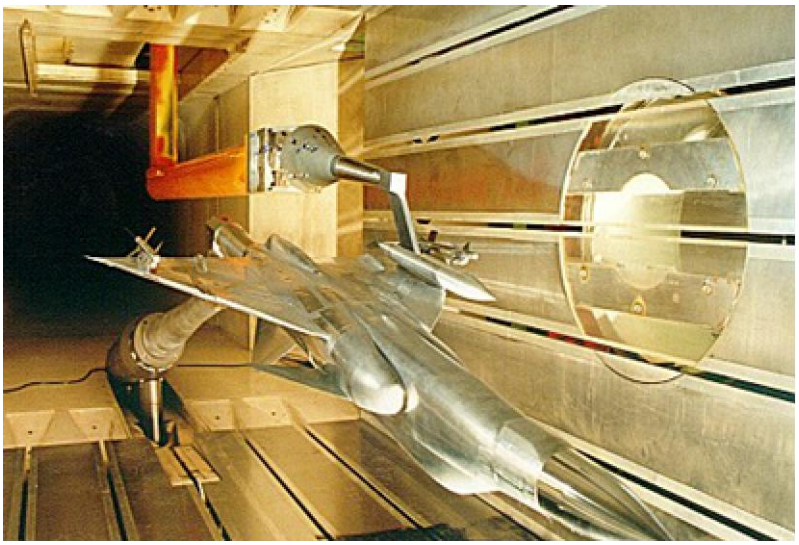
Meanwhile, in 1975 the AeSSA is resuscitated through the efforts of Col Frank Carnell & Dr. Corneels van Niekerk, but retains its divisional status in London. AeSSA is registered as a Section 21 company and adopts the Blue Crane symbol as its own logo.

In 1977, an affiliate to AeSSA, the South African Institute of Aeronautical Engineers (SAIAeE) is formed, and SACPE finally grants accreditation. This year marks a significant milestone in South African aviation and AeSSA's goal to empower aeronautical engineers. The first Aeronautical Symposium, "Prospects of South African Aviation," is held – this could be considered the start of the modern era of AeSSA.

Military requirements in South Africa saw a significant increase in the growth of the aerospace industries during the 1980's, and with it an increased interest in aviation. This resulted in the growth of AeSSA's membership, with a peak in 1988. Unfortunately a defense cut during the 90's caused a drastic decline in aerospace activity which then reduced AeSSA's membership numbers.

In these years SACPE was reconstituted as the Engineering Council of South Africa (ECSA) which then subscribed to international Engineering Charters and Accords.

During the 2000's, SAIAeE and AeSSA agreed that re-incorporating the two organizations would be more cost-efficient than maintaining separate functioning. AeSSA is accredited as a Voluntary Associate of ECSA and a new Society, the Flight Test Society of South Africa (FTSSA), is formed and affiliated to AeSSA. The Department of Science and Technology has also been involved with AeSSA and Aeronautical Conferences, marking the significance of the aviation industry in contemporary times.



In the 100 years that AeSSA, its affiliates and its predecessors have been active, they have contributed significantly to the aerospace industry in South Africa's rise from obscurity. Despite various setbacks along the line, they have always strived to empower aeronautical engineers of South Africa, and continue to contribute to further research and development in aviation without the want for personal gain. *(Editorial researched and written by Gys Oosthuizen)*

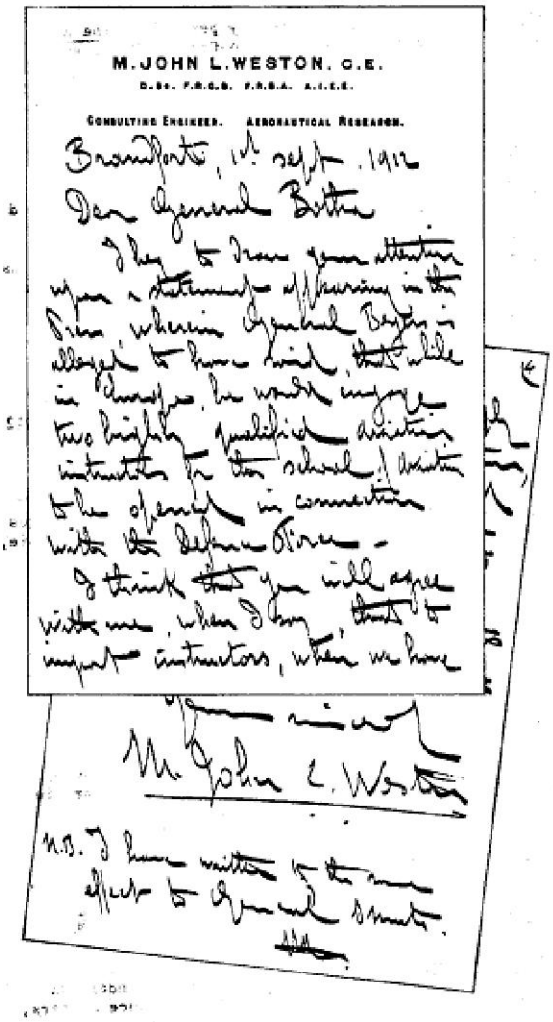
Aeronautical Society Centenary Celebration – 2 Feb 2011
Heather Ramsden – Grand Daughter of John Weston

The Aeronautical Society has done and is still doing a sterling job of keeping John Weston's name alive, honouring him with a Memorial Lecture every second year. This remarkable man was born in an ox wagon, in the district of Vryheid, Natal in July 1872, to Geologist/Missionary parents.

John Weston and Family circa 1921

In his youth he travelled extensively going to family in America and managing to crib his cousins university engineering notes, while earning his keep splicing hausers, crewing on a yacht and more. There he was drawn to Ballooning and gliding.

Back in South Africa he invested in a threshing machine with oxen and threshed the Free State farmers' crops for them while having visions of travel. When a veld fire destroyed the machine and nearly devoured him had he not jumped into a ditch, he advertised for a partner for an ox wagon trip up Africa to Europe and also to buy some sheep. His advert was answered by a member of the Roux family in Stellenbosch, which he dutifully visited. For some reason the trip never materialised, but or maybe because, he became interested in one of the Roux sisters named Elizabeth who was a governess for a family in Koffiefontein. Later this Bultfontein farmer was to marry Elizabeth in Bloemfontein, after having fought with the Boers in the Boer War.


M. JOHN L. WESTON. C.E.
D.Sc. F.R.G.S. F.R.S.A. A.I.C.E.
CONSULTING ENGINEER. AERONAUTICAL RESEARCH.

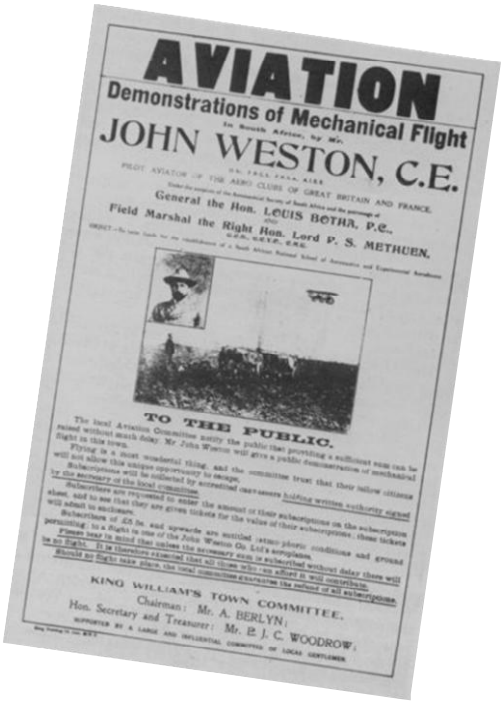
Reading about the Wright brothers in 1903, must have sparked his interest in flying again and cosseting his wife and his first born, Anna, in the house he purchased in Brandfort, he sailed away to England furthering his engineering skills then progressed to France where he learned the language fluently and joined a Ms Farman who was building his own aircraft, to which Weston added his own theories, which greatly impressed Farman and the Weston-Farman Biplane was born.

After returning to South Africa he shipped plane parts in to Brandfort where he considered the air to be perfect for flying and started powering the machine with a 50cc Gnome engine, but was soon to jack that up to an 80cc Gnome engine. He circulated pamphlets advertising his forthcoming flying demonstrations, which he later took around the country and Mozambique. His first demonstration was in June 1911 and flew for 8 minutes. The other airman "hopped". He was not prone to theatrics and got his plane of the ground every time. He became known as the Grandfather of SA Aviation.

He tried in vain to get the Bloemfontein Municipality interested in giving him ground for a Flying School which he wanted to start. He saw such a great future in flying for many reasons. But a while later the shed in which his 5 aircrafts were housed was burnt to the ground (it was thought by young arsonists) and that put paid to that dream.

He joined the British Royal Air Navy Service in which he rose to Commander and was stationed in Greece with his family and there orchestrated the building of bridges for the Greeks who honoured him with the title of Rear Admiral.

John Weston and Family on the Grand World Tour.
Note the sign on the van –
"Our Mansion –7x14ft, Our Playground – the Whole World"



AVIATION

Demonstrations of Mechanical Flight

JOHN WESTON, C.E.

General the Hon. LOUIS BOTHA, P.C.

Field Marshal the Right Hon. Lord P. S. METHUEN,

TO THE PUBLIC.

KING WILLIAM'S TOWN COMMITTEE.

Chairman: Mr. A. BERLYN;

Hon. Secretary and Treasurer: Mr. P. J. C. WOODROW;

He again returned to South Africa and by now the motor vehicle had been established as a mode of transport and he again dreamed of travel. He bought a Commer chassis and commissioned a body to be build of tongue and grove timber. This was complete with kitchen and sleeping quarters and with his wife and three children they motored south to Cape Agulhas and would go to the most northern place of Europe in Norway. This he felt would give his children a sound education and accomplished this trip twice.

The first time in 1921 and the second in 1931 though this time with a canvas body to minimise weight. Both times he had to cut the trips short and finish in England due to the financial crashes at the time. This vehicle with its wooden body is in the Winterton Museum near Bergville and is still in immaculate condition. This vehicle has a logo on either side which reads, Our Mansion – 7 x 14 feet, Our Playground – the whole world, Our Family – mankind. To tell you oftheir adventures on these trips would take another few hours.

Back in SA in 1933 he bought a farm in the Bergville district where the Hydro Electric plant now is, near the Sterkfontein Dam and where on 24 July 1950 at the age of 78 both he and his wife were brutally attacked, he to live for only 3 days and his wife to recover and live to 91 years of age with her eldest daughter, Anna, in the Transvaal. His wife always said that they silenced a brilliant brain.

Society Support for Schools
Rob Hurlin

The Society has supported 3 schools in their aeronautical activities, Waterkloof High, Pretoria Boys High & Hatfield Christian School. During 2010, the schools were active in various activities, resulting in a very successful year.

Hatfield Christian School.

Their charter is to take enthusiastic youngsters on various outings to places of interest in aviation, museums, airport control towers, airports. They also expose pupils to hands-on flying experiences in real aircraft on an annual fun flying day held at Kittyhawk where individual pupils fly with an instructor.

They also have an outing to the Magalies Gliding club where they can also gain hands-on flying experience.

As can be seen from the accompanying pictures, smiles all round on these pupils faces as they had their opportunity to try their hand at gliding.

Pretoria Boys High School.

Their charter is to hold various aeroquiz competitions, participate in the EAA Young's Eagles day and to hold an indoor model gliding competition.

The Young Eagles flying day was recently held at the Fly-Inn airfield under the expert guidance of EAA'er Karl Jensen, retired SAA Captain.

Waterkloof High School.

Their charter is to go on various industry based outings, such as Comair, SAA, Swartkops Air Force Base, ATNS. For 2010, they participated in the AeSSA indoor model aircraft challenge, and given their winning formula in both the gliding and electric competition, it was very successful. Gauging from their design as shown in the picture below, they sure had their design thinking caps on.

John Weston Memorial Lecture -
Rob Jonkers

Rob Jonkers introducing RAeS President David Couzens

The Society formally celebrated its Centenary on 2nd February held at Aerosud. The afternoon was filled with a cracking thunderstorm which prevented some to attend and some to get there late, but all in all a very successful afternoon. The programme included the attendance of the RAeS President AVM David Couzens who gave a very insightful address on the current state of global aeronautics. (see article on his address elsewhere in this newsletter)

It was very fortunate that David had planned his South African visit to coincide with our Centennial and that we were able to hold this celebration during his visit. We were also able to provide David with some insight into South African Aeronautics activities, and carried out a visit programme for the day which included a breakfast meeting with the SAAF CAF, Lt Gen Carlo Gagiano, a visit to the CSIR hosted by Des Barker, then a visit to Denel Dynamics organized by Iain McFayden which included a Seeker UAV demonstration, and thereafter a visit to the SAAF museum, kindly facilitated by Maj Gen Thackwray and hosted by Lt Col Oosthuizen.

Gert Jansen van Rensburg thanking Heather Ramsden Grand-daughter of John Weston for her contribution

The afternoon was started by an address by AeSSA President Gert Jansen van Rensburg who gave some insight into the early days of the Society and a tribute to John Weston's role in its formation.

We were fortunate to have been able to locate Heather Ramsden, the grand-daughter of John Weston who lives in Johannesburg. Heather being the daughter of Anna Walker who was the eldest in John's family. She kindly wrote an article for this newsletter and provided a host of photographic memories.

The main feature lecture for the afternoon was an address given by Des Barker titled "SA Aeronautics Community: A Monument to Innovative Engineering R&D." This lecture was given at IASSA 2010 in Gordon's Bay and most appropriate for sharing this with the Gauteng membership.

Des gave us a very insightful review of how the South African Aeronautics R&D capability grew from the early 60's into modern era and the world class products that resulted there from that were amongst the best in world. Sadly, with declining defence budgets, less & less R&D funds are available, and the need to refocus on niche capabilities has been the order of the day, but at least there remains excellent facilities and capability in the country to still execute exciting projects.

Des Barker during his address – SA Aeronautics Community: A monument to Innovative Engineering R&D

Address to Aeronautical Society of South Africa – Division of the RAeS at John Weston Centennial Lecture – Pretoria 2 February 2011
by AVM David Couzens, President, Royal Aeronautical Society

Ladies and Gentlemen, as your guest tonight, it is my honour and privilege to recognise the special nature of the relationship between the Aeronautical Society of South Arica and the Royal Aeronautical Society. Sadly, not every President of the Royal Aeronautical Society manages to visit, and that I can assure you is due simply to the pressures of only so much being possible in any one year. But, I was determined to make this visit because of the special resonance this year, as 2011 is the Centenary of your foundation by John Weston and tonight we celebrate his memory, vision and foresight with this bi-annual John Weston lecture.

Gert Jansen van Rensburg thanking AVM David Couzens for his address to the Society

Taking the common ground, we are to an extent bound together as members, supporters or friends of the Royal Aeronautical Society. But, I think that rather than being drawn to look inwards by such bonds it is far better in this globally-orientated world in which we live today to look out and engage with others. In so doing, we should never miss the opportunity to point out that one of the reasons for the global interconnectivity, that we now take so much for granted, is the creative genius of those in the aeronautical industries that have made long distance travel both feasible and affordable as a component of our everyday lives.

24/7 communication and electronic trading may well be possible only because of the internet - but that is a virtual world. By way of contrast the substantive changes which followed the introduction of large, long distance jets now some 30 years ago, which saw the creation initially of the "747 world" is real, tangible and has made possible and now continually lubricates our global economy by the movement of physical things - people, fresh produce, high value freight and, critically, has enabled world-wide just-in-time manufacture to become the normal business model. Of course, other platforms have since joined the 747, not least the Airbus 340 and the big twin-aisle twin-jets from both Boeing and Airbus, which also have true intercontinental range. So viewing the world, as one might (and I indeed have done for the past 3 weeks) from down here in the southern part of the African continent, such dramatic changes, as these technical solutions from our industry have brought, cannot be ignored as we look forward for at least the next 30 or so years. The current generation of updated aircraft from the Airbus and Boeing stables continue in production and despite teething problems the A380 is now in revenue earning service and the 787, which offers a slightly different solution by way of the potential for point-to-point, rather than hub-to-hub, global reach will emerge from test in due course to herald yet another step along the progression line of achievement - not least in its very substantial use of composite structural components. One might think then that looking ahead it is very much business as usual. But, I think that would be too simple a picture to paint.

Air travel, by its very nature, has been and remains a hard won conquest of his environment by man. If anyone ever doubted this, they were brought back to reality by the effects on North Atlantic traffic of the Icelandic volcanic ash clouds in 2010. So too are many flight operations curtailed by snow and ice. But much more significantly the interaction between aviation and environment lies at the very heart of the debates on global warming, and pollution more generally. So whether it is noise, NOx, CO_2, or now even just water vapour in the form of contrails. I think we can be sure that the spotlight will remain firmly on our industry. And, it will do so as two very different factors come into play.

The first is projected growth in the single aisle market- which most analysts agree will double the fleet from around 12,000 today to 25,000 over the next 20 years. Both the current duopoly of Boeing and Airbus are initially planning to field updated and re-engined offering of their 737 and A320 designs. Targets for the emissions from these platforms are considerably down on the current models - but if the older models cascade down the food chain as it were, rather than being retired from service, anyone can work out that the total environmental impact is only going upwards. The second factor, is that the acquisition and growth of a vibrant aerospace economy is seen as essential by many nations. UK currently has the second largest share behind the US, but we are acutely aware of the potential for that position to come under attack. From not only the environmentalists, but also those who advocate policies which fail to recognize aerospace as a true component

of a “knowledge economy”. There will thus be continued sovereign and industrially driven pressures from not only major primes, such as the duopoly of feeder-liner manufacturers (Bombardier and Embraer) but also for example from at least Russia through Sukhoi with its single aisle SuperJet and China, with its own regional jet, and India, again pressing for an advanced aerospace economy - which like the other two I have just mentioned at present is led by military rather than pure civilian ambitions.

So I really don't see this period ahead as anything like business as usual. Now, at this stage I am conscious both of the time and of the absolute truth that neither I nor the Royal Aeronautical Society possesses a crystal ball able to see quite how events will unfold. We are not a trade organisation - neither do we lobby for especial treatment or exemptions for aerospace. What we attempt to do though is to work very hard to ensure that global issues are seen and addressed responsibly and in the context of the best knowledge that can be brought to bear on them. We have our earliest foundations as a Learned Society and our highest priority in the Strategy we set out last year for the coming decade is to nurture and grow those characteristics of a world-class learned society such that our analysis and output are respected as learned, impartial and fair. Right at the heart of enabling us to do this is our membership. This priority target is, I believe, absolutely fundamental to the RAeS remaining a unique and global network for all engaged in the fields of Aeronautics and Astronautics, and one to which overseas members, both in the form of a Division, such as yours, or as individual members, can be anchored in as equal participants in that global network centred on one of the prime centres for global excellence in the field.

As I have set out, part of the future will see the emergence of challenges to the established order and not least to the current Primes. That, however, will not necessarily be the entry route open to, or chosen by, many. Rather it is more likely to be at Tier 1, Tier 2 or Sub-assembly and component level - both in manufacture and in MRO. Niche capabilities that are world- class will emerge and grow into world-class and world-size enterprises - not least as new technologies are brought into the aviation field. Then the new platforms will require flight crews, ground engineers and handlers... and again this is on top of the basic requirements to replace existing workers who will retire.

To my mind, the future is bright, the opportunities truly global and I hope that our Society can continue to play its part in bringing the right knowledge to bear in that endeavour and on informing those who legislate, or regulate, or otherwise shape how we meet these challenges over the coming decades. I hope you too feel the need to be part of that joint adventure. You will of course have noted that I have touched on neither space nor the military aspects of aerospace - I could have done, but many of the same key lessons would emerge in terms of the global nature of the challenges, and the excitement and adventures that lie ahead.

One key ingredient in all this will be encouraging youngsters forward into careers in our industry and in this we, at the Society, as well as the companies, have a shared interest. So too I believe have we in encouraging more active participation in our activities by what I call the mid-career professionals in the 35-55 age group. They are today's expert practitioners, and it is to them that we look to shape the immediate future. But for some reason, they are not fully represented as a cohort in our Society. Here we are not unique, because I have discussed this very issue with my colleagues who head similar bodies both in UK and overseas and many have a similar dip in membership age profile. Perhaps like many things today - it is another truly global issue - this time of intellectual engagement outside the workplace.

I will not attempt to address that point further. Rather, I will conclude by noting that John Weston was an enthusiast, pioneer and above all, a visionary, because he set you off on a journey, even though the outcome of it he clearly could not foresee -what indeed, given the size of South Arica, was the practical use of a record breaking flight of just 8 and a half minutes? However, he was made of the ”right stuff” and had vision, which he backed by action - not least to found the Aeronautical Society of South Arica. I will simply conclude by saying "Thank you for inviting me". It is truly a great honoui' to be able to join you this evening for this John Weston lecture, and as a final act, to recognise John Weston's vision and action of 100 years ago, I would like to present a small momento on behalf of the Royal Aeronautical Society to mark your Centenary.

Iain McFayden presenting a model of the Seeker UAV to AVM David Couzens

The Patterson Bi-Plane
Nico Theron

"I was one of the attendees at Aerosud when you presented the very interesting tribute to John Weston, during the John Weston Memorial Lecture. During the lecture, you mentioned that you would probably "like to find the Alexandersfontein site", where Patterson worked and established the first aviator school in SA, when again travelling through Kimberley.

I grew up in Kimberley and it pleases me to give some background on Patterson's exploits. In the 1970's the tarred road from the city towards the airport had passed the airport to Alexandersfontein (that is South of Kimberley city and south of the airport) where it then changed to a gravel road, whereby one could then continue up to the Magersfontein battlefield (Anglo Boer War) and its museum. At Alexandersfontein was the Alexandersfontein hotel, with its imposing ball room with floor mounted on springs ("nogal"!).

BLAST FROM THE PAST: The Paterson biplane, 12 years in the making, is being built without the use of industrial machinery Picture: DUDU ZITHA

Biplane project brings aviation history to life

JULIAN RADEMEYER

IN A hangar at the Swartkop Air Force Base outside Pretoria, an aircraft like no other in existence is being built.

The Paterson biplane — an exact replica of the aircraft used to train South Africa's first pilots in 1913 — is expected to fly in two to three years.

"There is nothing else of that type in the world," Lieutenant-Colonel Neil Thomas, the officer commanding the South African Air Force Museum, said this week. "It's the first flying replica to be built."

A non-flying replica of the Paterson is on display at the Pioneers of Aviation Museum in Kimberley.

Painstakingly carved out of wood and manufactured without industrial machinery — even the hinges are handmade and the petrol tank fashioned out of copper — the aircraft has been more than 12 years in the making.

"Most of the work was done by a volunteer, Ben Rodriguez, who passed away three years ago. He was in his 80s and had hoped to see it fly but sadly he never did," Thomas said. "He had skills you don't find easily anymore."

The aircraft has 1.5km of bracing wires supporting the wingspan which require careful maintenance. "After each flight you would have had to tweak them using a piano tuner," Thomas said.

Changes to the original Paterson biplane design include the use of a synthetic material and not canvas for the wings, and the use of a modern engine and propeller.

When it does fly, it will probably only do so once before being retired to the museum, and will not leave the airfield.

"It will be very much like the Wright brothers' flight," Thomas said. "We will restrict it to the runway and fly down it for 300m to 400m. We will also only be allowed to fly when it is cold and there is no wind. There is better lift when it is cold.

"If the slightest thing goes wrong it can crash. And although it only flies at about 40km/h, if it hits the ground at that speed, it will collapse like a house of cards.

"Its a true fly-by-wire aircraft with a wire cable to the controls, and a pedal which you push one way or the other to control the plane."

The SA Army took over the whole terrain at Alexandersfontein in the late 1960's, including the old hotel and this together with the old Diskobulos military base, right next to the airport, then became the Danie Theron Battle School. The restored old hotel was then used as the Officer's Mess.

During the late 1970's or early 1980's someone had built a new sheet metal shed right next to the tarred road, just South East to the airport, and established a museum to display the Patterson history and the aviator school's history. This museum was therefore a few kilometers North from the Alexandersfontein hotel.

I am uncertain whether the shed stood on the actual spot where Patterson had his aviator school or if it was literally at Alexandersfontein, (although I know that Alexandersfontein had a strong link with the flying school). It could be that his flying school was situated where the shed had been built as it may partly explain why Kimberley airport was established there (after Patterson). It could also have been that Alexandersfontein had a Post Office and that Patterson used that as the postal address of the flying school.

Anyway, I matriculated in 1974 in Kimberley and in essence left the town after that. My father passed away in 1983 in Kimberley and with my visit to Kimberley at his funeral, a few family members and I had then visited the (then fairly new) Patterson museum, unfortunately my only visit to the museum. At that stage the Patterson museum exhibited a full size replica of one of the Patterson aircraft as well as a "rotary engine" on a stand with its crankshaft mounted to the stand enabling you to turn the engine about its crankshaft. To me this was a first to see an engine in this way.

Unfortunately I am uncertain if the Patterson museum still exists – I do not travel to Kimberley much these days. It however impressed me greatly in 1983. Kimberley always had a very imposing city museum, namely the McGregor Museum, and I would bet "my Sunday hat" that if a private initiative had started the Patterson museum and it later would have became derelict, that the McGregor Museum would take charge of it. So, if you are interested to find information in this regard but cannot find anything on the Patterson museum, you could contact the McGregor Museum in Kimberley instead. Thank you for an interesting lecture"

Thus Passed the Years – an abbreviated timeline of the AeSSA

1911

At a meeting held in Die Volkstem buildings, Pretoria, it is decided, on a motion of the Chairman, Dr FV Engelenburg, seconded by Mr W Burningham White, to form the Aeronautical Society of South Africa (AeSSA). The Hon. Johann Rissik is nominated as the Society's first President.

1914

With the outbreak of the Great War, AeSSA suspends all activities for the duration, little realising that this will lead to a decline in activities for 20 years.

1945

Some SA Air Force officers become interested in the activities of the Royal Aeronautical Society (RAeS) and call a meeting at the SA College of Aeronautical Engineering. Thirty serving members of the SAAF attended and it was decided to form a South African Branch of the RAeS, which flourishes.

1946

The SA Branch of the RAeS becomes a full member of the Associated Scientific and Technical Societies of South Africa (AS & TS). A branch representative also serves on the Civil Aviation Advisory Committee.

1949

The South African Branch of RAeS is granted semi-autonomous Divisional status and becomes the Southern Africa Division of the RAeS.

1968

The S.A. Council for Professional Engineers (SACPE) established by act of Parliament (to regulate registration of Professional Engineers) and Aeronautical Engineering was represented by the SA Institute of Mechanical Engineers (SAIMechE).

1975

Resuscitation of AeSSA as a Section 21 company through initiatives of Col Frank Carnell and Dr Corneels van Niekerk – still with Divisional Status in London, and the Blue Crane is adopted as the Society's Crest.

1977

South African Institute of Aeronautical Engineers - SAIAeE is formed as an affiliate Society to AeSSA, and achieves SACPE accreditation. First Aeronautical Symposium held titled " Prospects of South African Aviation". The modern era of the AeSSA is born.

1980s

Significant growth in Aerospace activity in the country driven by Military requirements show substantial growth in membership with a peak in 1988. Formation of the Association of Registered and Licensed Aeronautical Technicians (ARLAT) for non-engineer professionals in the aeronautical industry.

1990s

In 1991 at the First Conference of Divisions and Overseas Branches of the RAeS held in Hong Kong it was agreed that Branches/Divisions may register in their countries but must absolve the RAeS from any debts and liabilities. They may adopt names of their own choice but remain bound by the RAeS's charter of incorporation and By-laws.

With defence cuts, Aerospace activity declined, membership numbers reduced. SACPE was reconstituted as the Engineering Council of South Africa – ECSA subscribing to the charters of the Washington, Sidney & Dublin accords. The unification of AeSSA, ARLAT, SAIAeE followed by the registration of the SA Institute of Aerospace Engineering (SAIAeE) representing all Aerospace engineering professionals, and was accepted as a Voluntary Association member of ECSA. In 1998, the SAIAeE and the RAeS (SA Division) merged as a Division of the RAeS and registered as a section 21 company RAeSSA.

2000s

The Flight Test Society of SA – FTSSA formed and is affiliated to the AeSSA. In 2005, RAeSSA changed its name back to the original AeSSA, retaining divisional status to the RAeS. Re-established South African based Aeronautical Conferences with initial assistance with the Department of Science & Technology.

2011

AeSSA celebrates its centenary, holds lecture evening in honour of John Weston, South African Aviation Pioneer and founder of the AeSSA.

FORTHCOMING EVENTS

In March, there will be a lecture on Safety for Certification vs Continued Safety to be given by Duane Kritzinger, Head of Product Strategy – Marshall Aerospace. Duane is a South African now living in the UK. Join us for an evening to explore the Safety Relationship between "Design Organisations" and the "Platform Operators"

Topics under Discussion:

- The System Level effect and expectations of Safety Deliverables
- Issues associated with commonly used Safety Standards and Safety Criteria
- Safety Assessment relationship with the Operator's Safety Case

In May, there will be the Society's AGM, and it is planned to hold a lecture on the Establishment of Rapid Prototyping / Additive Manufacturing in South Africa given by DJ de Beer – Vaal University of Technology, and combined with a presentation on the ADEPT Airmotive aircraft engine that extensively used rapid prototyping techniques to create this engine. The presentation will be made by Richard Schulz or Raymond Bakker from ADEPT Airmotive – members of an award winning design team who have designed a modern piston aviation engine that can run on multi-fuels.

Planning for IASSA 2011 is now well underway, the venue will be the Royal Elephant Conference Centre located near Swartkops Air Force base. The dates will be 26th to 28th September. There will also be a UAV demo day to be held on the Sunday the 25th which will co-incide with an Inter-varsity model aircraft competition. Watch the web site for more details. www.iassa.org.za

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