



**4<sup>th</sup> QUARTER 2009**

**PRESIDENT**  
DES BARKER  
CSIR

**PAST-PRESIDENT**  
IVAN PENTZ  
DENEL AVIATION

**VICE-PRESIDENT/**  
LESTER INGHAM  
AMG/DENEL AVIATION

**TREASURER**  
CHARL COETZEE  
SAAF TFDC

**MEMBERSHIP**  
PETER CHAPLIN  
STERADIAN TFDC

**ECSA**  
JOHANNES JOUBERT  
INCOMAR

**WEBSITE**  
PETRI VAN ZYL  
DENEL AVIATION

**LEGAL OFFICER**  
JAMES O'CONNELL  
SAAF TFDC

**SECRETARY**  
GRAHAM ROUGHTON

# Flight Test Society of South Africa *December 2009 NEWSLETTER*

## MESSAGE FROM THE PRESIDENT

The year end is upon us; one year closer to pension. Ever thought about it from that perspective? Bad news, but reality! So what? Ensure that every day you can be involved in flight testing, for outside of actual air combat operations, it is the most exciting form of aviation any pilot or flight test engineer, can be involved in.

2009 was a relatively good year for the Society but there is much room for increased involvement in the RSA aviation scene. We met our objectives of increased socialisation through our mid-year function, or AGM, Flight Test Workshop and Year End Dinner – our active participation in the organisation of the International Aerospace Symposium of South Africa (IASSA 2009) and the annual lecture programme to the Aeronautical Society of South Africa, were just some of the highlights.

But that's all in the past; , let us wrap up this old 2009, take a well-earned break, and return with a commitment to become more involved in 'selling' the Society. How? We need to become involved in aviation within the RSA in its many various modes. General aviation in South Africa is in dire need of your experience and instruction, safety forums abound and these provide great opportunities to pass on your experience to

others in making flight test and aviation safer.

Following our AGM in November 2009 at OTB, minor changes to our management team occurred. Congratulations to Derek Mathee, Evan Jones and Graham Roughton for their election to the Board.

Finally, may you and your family be richly blessed in each other's company during this Christmas time!

## GENERAL NEWS

### In Memoriam



Farewell Dave Stock.  
We will remember him.  
RIP 14 Nov 2009

### Major 'Chippy' Cross', Australian Army.

Chippy seems to have settled into his new post in the Australian Army and is in the process of getting all the masses of paper work done before he starts flying the Tiger. Chippy will be joined by the rest of the family during December 2009. Well, we now have a 'pongo' test pilot – that's a first!!!!

### Associate Membership

The decision to allow MTP/OTE qualified personnel to join the Society as Associate Members was ratified by the committee during 2009. If you are aware of any MTP/OTE graduates that have not applied for registration, please advise Peter Chaplin.

## PAST EVENTS

### IASSA Conference 2009

The annual International Aerospace Conference 2010 was successfully held at the Leriba Lodge, Centurion, over period 21 to 23 November 2009. Proud to announce that the FTSSA contributed four top-class speakers ie Lester Ingham, Blokkies Joubert, James O'Connell, Dr Bennie Broughton while Des Barker and Derek Mathee acted as Session Chairman.

- Johannes Joubert; "Flying Qualities Specifications for Fly-By-Wire Combat Aircraft".
- Lester Ingham & Petri Van Zyl: "Flight Testing of the Rooivalk Weapons System".
- James O'Connell: "Helicopter Control Deflection Envelopes".
- Dr Bennie Broughton – "The Use of System Identification in Flight Testing"

The success of the Flight Test contributions could be assessed by the occupancy of the venues when flight test subjects were presented. In similar vein to the TAUSC 2008, the popularity of flight test tales was evident. Those that did not present this year, will have an opportunity next year. Please start preparing your papers for the IASSA 2010



which will be held in Cape Town in November 2010.

### Annual Subscriptions

Karin will be sending out invoices to you all in January 2010, please support your society by being a member in good standing to enable the Society to conduct their business for 2009.

### Annual General Meeting

The Annual General Meeting was kindly hosted by the Overberg Test Range on Monday 16 November 2009. Our thanks and appreciation to Abrie vd Walt and his team at OTB for hosting the AGM and the dinner – top class company, facilities, and socialisation. It is important that the flight test community keeps on contact and is seen to be a coherent and unified body with a common vision of achieving excellence in flight test in RSA.

### FUTURE EVENTS

#### OT&E Course 2010

The South African Air Force's OT&E Course 01/10 will be presented at TFDC during May 2010.

#### AAD 2010

The Africa Aerospace and Defence Expo will be held at AFB Ysterplaat over period 21 to 26 September 2010. This will most probably be the last hosting at Ysterplaat. The FTSSA will be present not only at the various symposia and conferences, but also in some of the flying events.

#### IASSA 2010

The International Aerospace Symposium of South Africa (IASSA) 2010 is the culmination of the cooperation of a number of leading South African conferences and symposia within the aerospace field. It incorporates the Aeronautical Society's (AeSSA) conference, the 4th Flight Test Society of South Africa (FTSSA) Symposium, the 4th South

African International Aerospace Symposium (SAIAS) and the 4th Technical Aerospace and Unmanned Systems Conference (TAUSC). The intent next year will be for peer Peer Reviewed Papers of a high international standard.

The closing date for papers will be announced in February 2010.

For further details, please visit <http://www.iassa.org.za/>

#### Aeronautical Society of South Africa 2010

The following presentations were agreed to with the Aeronautical Society of South Africa:

In an attempt for greater exposure for our association, the committee has decided to take our lecture evenings to Cape Town and Durban.

- February 2010 - Durban. "A Look Into the Soul of South African Aviation Safety" – Des Barker
- March 2010 - Cape Town. "Rooivalk Flight Test Programme" – Petri van Zyl and Lester Ingham.
- April 2010 (Cape Town). "Gripen Flight Test Programme" – Blokkies Joubert.

### MEETINGS

#### Committee Meetings

The next committee meeting for 2010 will be held on February at the CSIR Aeronautics Systems Competency in Gauteng. Exact date to be determined from diaries.

#### Annual General Meeting

The next AGM is scheduled for November 2009 at TFDC. We will be 'killing two-birds with one stone' by hosting a one-day symposium at TFDC.

#### THE WOEFUL TALE OF ECSA REGISTRATION

From the AeSSA meeting in April 2009, Mr Gert

Janse van Rensburg announced that the ECSA Board would be prepared to entertain FTSSA's application for accreditation, subject to compliance with stated stipulations. A meeting between FTSSA and ECSA was held on Friday 14 Aug 09 at ECSA HQ in Johannesburg in an effort to bring this 9-year old issue to closure for experimental test pilot recognition as PrEng. Repeated efforts have been unsuccessful.

At the committee meeting in December 2009, the committee confirmed that given the bureaucratic 'red tape' and 'hurdles' based on ECSA's criteria for engineer registration, this matter would no longer be pursued. After nine years, this attempt is finally being closed.

#### BADGES & PATCHES & TIES & BANNER

Flying overall patches have been designed and payment authorised by the AGM. Members will be informed upon receipt of the badges which can then be purchased from the Administration Ladies at Incomar.

At the AGM, Jannie Scott, apparently known in Bredasdorp as the 'fashion guru', volunteered to design the FTSSA tie. We wait in suspense for his ingenuity to show us what the latest fashions from Bredasdorp can conjure up.

During the year, the committee designed a banner for the FTSSA for display at FTSSA events. The banner was displayed at our flight test workshop/AGM and also at the International Aerospace Seminar in November 2009. This banner can also be found on the FTSSA website.

You'll never guess what the first 'chirp' was upon unfolding the banner for

the first time was? Why is the helicopter above the fixed wing? The smart unbiased answer was, because the Rooivalk was in flight and the Gripen plus pilot was on the ground. Fixed wing test pilots and 'water walking' taken to a new level, excuse the pun.

### TEST PILOT TALES



#### F-22 Flight Test Accident.

In July the USAF issued a press release on the cause of the fatal F-22 crash near Edwards. The manoeuvre was a roll to inverted, dive to attain 1.6 Mach at 20,800 feet, then roll upright and pull out of the dive. Two of these went as planned.

So did the third, initially. But after hitting the desired condition at 20,800 feet, the pilot continued a max g inverted pull until the plane was 83 degrees nose low. At 14,880 feet he rolled upright and held full back stick, reducing the dive angle to 50 degrees. At 7500 feet he ejected and immediately sustained fatal injuries.

"This mishap was caused by the TP's adverse physiological reaction to high acceleration forces and subsequent loss of situational awareness during recovery from the third test manoeuvre. The TP channelized his attention to fight off the effects of high g-forces, characterized by gray-out, light loss, and/or tunnel vision; meanwhile, the test aircraft] entered an extreme nose down, high-speed attitude from which safe recovery was not possible. The

TP regained some SA but determined he was too low and descending too fast for

a safe recovery. He ejected outside the ejection seat design envelope and sustained fatal injury." The complete one-page executive summary may be found in the list here:<http://usaf.aib.law.af.mil/>

## ON THE LIGHTER SIDE

### The Origin Of The Word Aviator ~ A True Story!

This explains it all. As aviators, we come from a long line of a secret society, formed around one thousand years ago. We are warriors, and here is the proof! Pongo's can read it and weep! A little known fact is the origin of the word, "Aviator." In the immortal words of Johnny Carson: "I didn't know that."

Phu Khen (pronounced Foo Ken) 1169-? is considered by some to be the most under-recognized military officer in history. Many have never heard of his contributions to modern military warfare. The mission of this secret society is to bring honour to the name of Phu Khen.

A 'Khen' was a subordinate to a 'Khan' (pronounced 'konn') in the military structure of the Mongol hordes. Khan is Turkish for "leader". Most know of the great Genghis Khan, but little has been written of his chain of command. Khen is also of Turkish origin. Although there is not a word in English that adequately conveys the meaning. Roughly translated, it means, One who will do the impossible, while appearing and unprepared and complaining constantly."

Phu Khen was one of ten Khens that headed the divisions, or groups of hordes, as they were known, of the Mongol Army serving under Genghis Khan. His abilities came to light during the Mongols' raids on the Turkistan city of Bohicaroo. Bohicans were fierce warriors and

the city was well fortified. The entire city was protected by huge walls and the hordes were at a standoff with the Bohicans. Bohicaroo was well stocked and it would be difficult to wait them out. Genghis Khan assembled his Khens and ordered each of them to develop a plan for penetrating the defences of Bohicaroo.

Operation Achieve Victory (AV) was born. All 10 divisions of Khens submitted their plan. After reviewing AV plans 1 thru 7 and finding them all unworkable or ridiculous, Genghis Khan was understandably upset. It was with much perspiration that Phu Khen submitted his idea, which came to be known as AV 8. Upon seeing AV 8, Genghis was convinced this was the perfect plan and gave his immediate approval.

The plan was beautifully simple. Phu Khen would arm his hordes to the teeth, load them into catapults, and hurl them over the wall. The losses were expected to be high, but hey, hordes were cheap! Those that survived the flight would engage the enemy in combat. Those that did not? Well, surely their flailing bodies would cause some damage. The plan worked and the Bohicans were defeated. From that day on, whenever the Mongol Army encountered an insurmountable enemy, Genghis Khan would give the order, "Send some of Phu Khen's AV 8-ers." This is believed, though not by anyone outside our secret society, to be the true origin of the word Aviator (AV 8-er).

Phu Khen's AV 8-ers were understandably an unruly mob, not likely to be socially acceptable. Many were heavy drinkers and insomniacs. But when nothing else would do, you could always count on an AV 8-er. A Phu Khen Aviator. Denied, perhaps

rightfully so, his place in history, Phu Khen has been, nonetheless, immortalized in prose. As the great poet Norman Lear never once said: "There once was a man named Phu Khen,

Whose breakfast was whiskey and gin.

When e'er he'd fly, He'd give a mighty war cry: "

Bend over, here it comes again."

Consider it an honour to be a Phu Khen Aviator. Wear the mantle proudly, but speak of it cautiously. It is not always popular to be one of us. You hear mystical references, often-hushed whispers, to 'those Phu Khen Aviators.'

Do not let these things bother you. As with any secret society, we go largely misunderstood, prohibited by our apathy from explaining ourselves. You are expected to always live down to the reputation of the Phu Khen Aviator...a reputation cultivated for centuries, undaunted by scorn or ridicule, unhindered by progress.

So drink up, be crude, sleep late, urinate in public, and get the job done. When others are offended, you can revel in the knowledge that... **YOU are a PHUKHEN AVIATOR!**

### AGE OLD RUMOUR EXPLAINED



Bell's first American jet

I was wondering if there was any truth to the rumour that a test pilot wore a gorilla suit either as a security measure or a joke during testing of the first US jet airframe. I have found the following three stories online at different forum sites. The fable is reminiscent of the P-59's saga: the story of the first

military jet aircraft to fly in the United States—an aircraft that apparently no one could see. The date was 1942; the location was Muroc Army Air Field (today Edwards Air Force Base).

Whenever it was on the ground, the P-59 was fitted with a fake propeller for the sake of secrecy. Unfortunately for secrecy, at the local watering hole, test pilots mixed with P-38 pilots stationed nearby. After slugging down a few drinks, the test pilots bragged about flying a propellerless aircraft and were immediately labelled as liars by the P-38 crowd—fighting words for sure. Subsequently, test-pilot Jack Woolams decided to put them in their place, not with his fists but with something far more effective.

He rented a gorilla suit and took off wearing it along with a big cigar protruding from his mouth and a derby hat on his head. Once airborne, he found a lone P-38 pilot, pulled alongside, giving the P-38 pilot a clear view of the jet and gorilla suit, then waved, much to the shock of his intended target. The next day when queried at the local watering hole, not a single P-38 pilot had seen an "escaped gorilla" or knew anything about it.

The explanation: why of course, it must be that P-38 pilots could only see what they believed was possible. Yeah, right. Apparently, the P-38 pilots never again questioned the possibility of propellerless aircraft, let alone the honesty of test pilots.

Although the events are not even a century old, already there are more than one version of the Jack Woolams tale. All are slightly different. One version relates that there were multiple sightings of the gorilla-piloted jet and that the base psychiatrist talked several P-38 pilots

out of believing what they saw.

Who knows? The fact is that even if someone sees and believes a phenomenon, it doesn't mean they will honestly talk about it. And if they do, it doesn't mean that the details will be perfectly remembered in the historical record - especially if there isn't one.

Version 2. During initial flight testing of the P-59, Bell personnel could be

distinguished by their trademark black derby hats. Although the airspace around Muroc Dry Lake was restricted, P-38 pilots from a nearby Army field would occasionally invade the area to see what was going on at the "secret" base. On one flight, Bell test-pilot Jack Woolams spotted one of the snoopers and pulled on a rubber gorilla mask he had brought along, put on his derby, stuck a big cigar in his mouth, then let the P-

38 pull alongside. He glared back at the stunned pilot, who quickly broke off.

There was no official follow-up to this episode, but it was the source of much hilarity among Bell workers who speculated about the story being told that night at some Officers Club of a propellerless plane being flown by a cigar-smoking gorilla wearing a derby hat! It might well have been the forerunner of the flying

saucer tales a decade later. (— K O Eckland)



(D.E. BARKER)  
**PRESIDENT FTSSA**  
Tel: +27 012 8414229  
Cell: +27 82 6190325  
Fax: +27 12 349 156  
Email: [bishop10@lantic.net](mailto:bishop10@lantic.net)

