

Jurgis Kairys; Aerobatics Champion

Back in April, while covering the Warbirds Over Wanaka event for KiwiFlyer, Chris Gee took the opportunity to meet with two of the stars of the show; Aerobatics Champion Jurgis Kairys and Wing-Walker Peggy Krainz. The interviews that follow make for fascinating reading.

IN THE 1970's two Lithuanian members of the Soviet Aerobatic team, Stepas Artiskevicius and Jurgis Kairys became best friends and began competing with each other, spurring each other on to more difficult manoeuvres and expanding the envelope of what was considered possible in an aeroplane. The aerobatic style they developed is continued today in what is called 'Unlimited' Aerobatics. One of those groundbreaking pioneers, Siberian born & Lithuanian raised Jurgis Kairys has quite a soft spot for New Zealand and especially the Warbirds Over Wanaka Airshow, where he has performed since 2004.

A brief history

Jurgis has been flying aerobatics since 1974 and performs at up to 25 airshows and competitions throughout the world each year. Winning his first Gold medal in the World Unlimited Aerobatic Championship in 1982, he has gone on to win another four medals, the most recent in 2009 after an absence of 13 years. In 2005 Jurgis Kairys became the overall top placed pilot over 10 years of FAI World Grand Prix Competitions. He also has a habit of flying under bridges and is most famous for flying under all ten bridges over the Neris River in Vilnius, Lithuania in 1999. He also flew upside down under a pedestrian bridge only 7 meters high in 2000.

Before becoming a pilot, Jurgis was an aeronautical engineer. He worked for Sukhoi and helped design the renowned Sukhoi Su-26, Su-29 and Su-31 Aerobatic Aircraft. However he knew that an even higher performance aircraft could be created. This year he brought his own unique aircraft to Warbirds Over Wanaka, The JUKA. Jurgis explains his journey of aerobatic aircraft design:

"I was working as a test pilot for Sukhoi. I had always had the best super planes you know; I really needed to think about the design and explain it to the designers. I found some good possibilities. I wanted to build a new idea from what we had in the

80's. We had really old planes, they were breaking in the air and they were not strong enough and too slow for aerobatics. The Americans had nothing better we could use, or the Europeans. The Germans had the Extra 230 but it was not enough. The time was right to change the way of thinking about aerobatics planes and I was looking



Engineer, Pilot and Aerobatics Champion Jurgis Kairys at Warbirds Over Wanaka 2010.

for new ideas. Some people at Sukhoi were putting on the pressure and I said "Please guys, slow down, wait a bit, maybe for some years, and when you think this through slowly you will come to understand", and then you see we had our answer..."

"After my time with Sukhoi had finished I was looking to leave Russia, to be free to do the things I wanted to do, so I went back to Lithuania. At that time I had two Sukhoi's but they were not good enough for shows. So I bought the whole project off Sukhoi. I made some big changes to the plane, in aerodynamics and in construction. We made it very different in the air. We changed the way of thinking about aerobatic planes. In comparison with the JUKA it may look the same, but compared with when I fly a Sukhoi it feels like a comfortable car. That comes with years of flying Sukhoi, but when I fly this plane it feels like I am in a sports machine. That is how I want to feel. This is next level."

Setting up

Jurgis' experience as an engineer proves invaluable when he is on tour since he

Contributed by Chris Gee

carries out all the maintenance on the aircraft himself; "First I am the engineer, and I get my hands very dirty. Then, only after I have cleaned my hands, can I be a pilot."

The JUKA is designed to be easy to transport, a necessity for Jurgis and his busy routine; "This one is different from others, it is not difficult. When my plane comes out of the container it has its propeller off, and its wings and tail are off. Normally it is not a problem to put it back together. All going well I can have it flying in 3 hours after opening the container, but here I had to change the pump for the smoke this time so it took a bit longer."

The Show

Jurgis performs an exhilarating routine, and can take credit for the invention of several aerobatic manoeuvres including the "Kairys Wheel" and the "Small Loop". He was the

first to successfully perform the "Cobra" manoeuvre in a propeller driven aircraft. He also has the ability to hover his aircraft like a helicopter. Such a dynamic routine requires careful planning and thought.

"You have to think about lots of things, for example the first thing for me is to show a programme which is not similar to another pilot's. Always managing new manoeuvres, new programs, and something new with the possibilities I have with the new plane. I need to think about which manoeuvres I will place in my program, and how to manage this manoeuvre with the wind, the area, the temperatures... every day is a little bit different. The wind is from here, or from there. We have the public, we have a deadline, we have our 'Box', and I always need to think about how I am going to put the aeroplane where and when I want it, to lead into the next manoeuvre. That's not easy, but the plane is very powerful."

It is a standard practice for Airshow organisers to demand a 'Safety Check' of the routine before the event. This can sometimes cause problems for Jurgis, not

because of a lack of safety, but because of a lack of understanding on the part of the organisers about what he is doing.

"I cannot perform an exact routine you know, because what I can do depends on the weather. It will be a little bit different every time. If an inspector who did not know about aerobatics was coming to see a "list" of manoeuvres, it would feel like I must do it like the document, and I could not do that. It is like a musician doing a solo you know. Someone who is not a musician may come and judge that you are playing right or not, but they wouldn't know what that musician was really doing..."

Competition Flying

Jurgis admits that in the past his style of flying has caused problems in the past with the Judges at the competitions.

"Many of the judges came from the 'classic' era; they had seen it and understood it. It was hard for them to see that something new is 'better'. At first I had problems like that. But now it is different. There are more professionals judging, waiting for the next new thing. The new thing is now at the top. The logic has changed and I'm happy about that. They need to have understanding. If the scoring system is wrong well, that's no good. We have always been judging ourselves!"

After over 30 years of competitive aerobatic flying, Jurgis has seen a huge change in how aircraft are flown.

"Before was very different. It was 'classic' aircraft and nicer looking moves you know, but nowadays it is Bam! Bam! Bam! Some people didn't like this. "Oh it looks bad" they would say. I can joke a lot about that. This new era was coming and it was full of life, and fun. I like it the way it is now."

For the audience

Despite the concentration required to fly his routine, there is still the opportunity for Jurgis to enjoy the experience, but his work comes first.

"By time, by training, by practice, by repetition you become comfortable, in a competition or in a show. A show is a little bit different. In a competition my thing is to catch points, to have a result, to build a result. But in a show you have to capture the attention of the public. Sometimes I am doing it just for the professionals. When I see that some interesting pilots are coming

to the show I will do things for them, but mainly it is for the public."

Jurgis claims to pull G forces of +/- 12 G's during his routine, which can be punishing on his body.

"The body is trained by time. You need



Jurgis in display mode at Warbirds Over Wanaka 2010.

to live upside down like a fly on the roof... that's very important. You can't do this kind of thing straight away. Always time, training, practice, repetition. Your body will learn."

Team displays

As well as his solo display Jurgis often flies in a team with other pilots, his most notable being 'The Air Bandits', who flew at the Warbirds Over Wanaka Airshow in 2008. Comprised of Jurgis Kairys, Rob Fry (NZ) and Yoshiro Moroya (Japan), the Air Bandits were put together by Jurgis to provide a "flying entertainment package"

using dissimilar aircraft. Jurgis also flew with the late Jim Leroy, regarded as one of the world's greatest aerobatic pilots, at Avalon Airshow in 2007. However flying with other pilots provides some unique challenges.

"You have to work everything out before hand. Oh yes. Meticulously... Even though you can't see the other plane, you have to know where they are, and you have to know where you need to be. When Jim crashed (in the USA on July 28, 2007, just a few months after his flights with Jurgis) he was in a performance with another aeroplane, but that was not a factor in the crash."

The World Elite Formula

With so much experience in the competitive aerobatic scene, Jurgis came up with his own form of aerobatic competition, originally known as 'The JK Formula'. With the help of other professional aerobatic pilots this has grown into the FAI World Elite Aerobatic Formula. The aim was to make aerobatics more attractive to the audience. FAI WEAFA competitions are more easily understood, more interesting to watch, more dynamic and also deliver sensational live action pictures. They also go beyond the limits of classical aerobatic championships giving the pilots more space for a freestyle show. Only pilots with the highest professional skills are admitted to FAI WEAFA competitions, as the format requires great accuracy. Only one pilot per country is allowed to participate and the maximum number of participants is ten. FAI WEAFA competitions can be held separately or be part of an Airshow, making them more commercially viable especially with the addition of sponsorship.

The first FAI WEAFA was held in Mamaia, Romania in 2009.

A Wanaka highlight

And the highlight of this year's Warbirds Over Wanaka for Jurgis? Surprisingly it was not an aerobatic plane, or even aerobatic flying. It had long been a dream of his to fly the only airworthy Lavochkin LA-9 in the world and Jurgis got his chance a few days after the Airshow thanks to LA-9 owner, Garth Hogan. Jurgis loves the flying and the people in New Zealand and he has every intention of returning for Warbirds over Wanaka 2012. www.jkairys.com