

SO WHAT IS AERO GP?

Pilots must compete in three very different events at each venue for the chance to be crowned World Champion Flying Ace. This year's series commences in Romania this weekend with a second event at Blackpool later in the month. A third is planned for later this year – venue to be confirmed.

AIR RACING Like motor racing... but in aeroplanes. Up to eight pilots compete at 300mph as little as ten feet above a designated circuit for several laps, all striving to pass the chequered flag first. This is closer to science fiction and video games than it is to any other race in existence.



AIR COMBAT This event recreates the thrills and spills of Battle Of Britain-style dogfighting for the spectators. The pilots take to the air in an attempt to outmanoeuvre and shoot each other down... though not with real bullets, of course.



BARNSTORMING The pilots take part in a number of challenges, such as aerobatics, flying over low-level obstacle courses and – local regulations permitting – target bombing. Naturally, extreme precision is the key to success.



'We fly upside down, rotating as though on a spit. My eyeballs push at their sockets and my tongue leaps from my mouth. I'm on the verge of passing out'

► air-race pilots are very different from aerobatics pilots and military pilots, but with Aero GP we are combining the three disciplines. That's not been done before. It's difficult. It's dangerous.'

This knowledge is little comfort as I climb aboard a plane piloted by Igor, an aerobatics artist of 11 years and a pilot for 20. Having seen what a spectacle the Aero GP is from the ground, it's time to experience it from the air. I ask Igor how confident he is that nothing will go wrong. 'I wrote the book on aerobatics,' he tells me. A quick check online later confirms he actually did.

Before we take off, Jeff runs through what it feels like for one of his Aero GP pilots every time they take to the sky. 'We operate in a third dimension that most sports don't, and that brings G-forces into play. The strains on the body are intense. Our pilots will pull more G-forces than a fighter pilot in a dogfight. The training they have to go through to learn how and when to tighten their muscles and breathe properly takes years of experience to master. When they're pulling these levels of Gs – often as much as nine or ten – the pressure on the body is huge. If your head weighs 5lb now, it'll weigh 50lb in that plane. Now imagine having to turn your head to look out for other planes while going 250mph... It takes a rare person to be able to deal with that.'

Unlike Formula 1, a sport which exerts far less severe G-forces than this yet requires layer upon layer of fire-retardant protective clothing, aerobatics has just two uniform requirements: a helmet and an emergency parachute. Igor explains the latter as he straps it tightly to my back. Unlike regular parachutes, it's designed to work so quickly that it'll open fully even if deployed at very low altitude. This also means that the process of pulling it is particularly vicious. It will feel, I'm told, like having your spine wrenched from your back, and you'll only really know you need to use it when the pilot has

ejected the plane's Perspex shield and pulled you from the aircraft in mid-air. That, Igor assures me, means trouble. 'But it is very unlikely,' he says. 'What is more likely is that you accidentally open the parachute in the plane. That would be a problem for both of us.' I make a mental note to avoid the ripcord on my chest as best I can, but I needn't have worried. Very soon my arms will weigh so much that I can't even lift them from my lap.

Igor's plan is to gradually increase the ferocity of the manoeuvres, rising slowly through the scale of G-forces, in order for my inexperienced body to grow used to them. My initiation is as quick as it is violent. In the next 13 minutes the plane will pirouette with a balletic grace through the air, causing the G-forces in the cockpit to lurch between the extremes of seven and negative three. 'The craft is capable of much more,' Igor says. 'It's your body that's not.' In those 13 minutes I am ten different weights.

Professional aerobatics pilots such as Igor can withstand maximum Gs without too much difficulty. Novices, meanwhile, are much less resistant to the whims of gravity. 'Seven is a lot,' Igor tells me. 'Much above that, you'll feel dizzy, possibly ill. You could fall unconscious. But it's negative G-force that's most dangerous. It'll burst blood vessels before you know what's wrong.'

These aircraft are uniquely suited to inverted flight. In many planes, if you fly upside down the engine will be starved of fuel and cut out, meaning you fall from the sky like a freshly swatted wasp. The Extra 300L can technically maintain flight no matter what angle it's flown at, despite being only 23ft long, with a wingspan of 26ft and a 300hp six-cylinder engine.

I'm strapped in so tightly I can barely inflate my

Planes take part in a 'barnstorming' session over Constanta beach. Right: David Whitehouse (right) with his pilot Igor



lungs as we take off. The ascent is rapid – the plane can climb at a rate of 3,200ft per minute – and so steep that the flesh of my face is kneaded into reluctant bloodhound jowls. When we level off, the experience is an instant relief on the senses – which lasts until Igor, via my headset, tells me to take hold of the stick in front of me. The plane is dual-control and I'm about to fly it.

At his instruction, I steer gently to the left using just my finger and thumb, underestimating the stick's sensitivity so much that we're instantly at a right angle. I look out at the wing and see Tuzla airfield, where we took off, laid out in the dusty Romanian countryside beneath me, a distant flat-pack hurtling away. Gravity yearns to pull me down 3,000ft and squash me into a bloody pulp on the ground, while the straps around my shoulders, waist and thighs are all that hold me in place. My entire body weight strains at them like a dog on a leash.

Igor, wisely, takes control again. He pulls back on the stick and we climb into a full loop. The ground becomes the sky and the sky like a sea below me until I can't be sure whether or not I'm upside down. I'm dangling in the air, unable to lift my head or my arms, until I'm smashed back into my seat by my tripling body weight, as though being buried by a falling stack of bricks.

After a few more flips and spins, I get to experience some proper negative G. We fly upside down at top speed, rotating as though on a spit. The feeling is of your innards trying to escape from your body. My eyeballs push at their sockets, my tongue leaps from my mouth and all the blood in my body seems to collect in my brain. I'm on the verge of passing out when Igor finally brings us in to land. Every muscle in my body tenses and spasms, and my hands are bruised due to the firm grip I had on the bars by my sides, which felt like the only thing holding me in reality. The relief of being on the ground again makes me shake.

Aerobatics is a combination of the fear you'd experience in a crashing plane and the immense and joyous realisation that your life will be saved. It's unique and incredible, a rush impossible to simulate or imagine. If a fraction of the excitement of being in the cockpit can be shared with the viewing, motor-sport-loving public, then Aero GP's prospects are dazzling indeed. The sky, says Jeff, is the limit. 'We're chasing Formula 1. In five years the Aero GP will be a household name. Next year there'll be more events all around the world, and soon it'll be a ten-part series. It's gonna be big.'

The next day I see Igor over breakfast. He walks perfectly normally. I, on the other hand, hobble to the table. I feel as if I was nailed to a board in my sleep, my muscles all hot, aching and agonisingly rigid. But he's right when he says I'd do it all over again. ■

The next Aero GP event is at Blackpool on June 28–29. aero-gp.com

IS AERO GP REALLY THE TOUGHEST PHYSICAL TEST FOR THE HUMAN BODY? TURN TO PAGE 38 TO FIND OUT WHAT IT'S LIKE TO RACE IN F1

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