

First Lady of flight



HAC/Stuart Adams, The Flying Photographic Co

A woman's place is in the cockpit of a vintage fighter. Pat Malone profiles Anna Walker

Now chaps, do yourselves a favour this air show season – if you're approaching the Spitfire and Hurricane pair, don't look over the shoulders of the two ladies there and ask: "Where are the pilots?" Following this advice might save you from painful injury. The Grace Spitfire and the Historic Aircraft Collection Hurricane just happen this year to be flown by women, and a fabulous job they make of it too.

In modern times it feels almost Neanderthal to be writing a story based on the gender of the subject, but even in a world where there are women Tornado and Harrier pilots in combat, women beyond number flying airliners, a woman pilot in the Red Arrows and fully 20 female Group Captains in the RAF, seeing women dogfight in a Spitfire and a Hurricane is still noteworthy. Furthermore, the ladies themselves recognise that the fact that they are women piques the interest of onlookers and gives their sponsors more bang for their buck, so that lets me off the misogynist hook.

Carolyn Grace is familiar to us, but less has been written about Anna Walker, who is in her second full season at the Hurricane stick and is believed to be the first woman since the war to fly the type. Anna is in fact a complete aviation nut, a hugely talented aerobatic and display pilot with experience of a bewildering variety of aircraft. A commercial pilot and instructor, she has more than 3,000 hours on 45 different types and includes among her many accomplishments a landing at 14,500 feet on Mont Blanc in her ski-equipped Piper

Cub. Petite and ever ready to smile, Anna will fly anything with wings or blades and at the moment is seriously entangled with floatplanes.

It may seem strange to those of us who have come up through a prescriptive, highly-regulated qualification system that a pilot could have more than 1,000 hours without benefit of a licence, but Anna was born and brought up near Campinas in Brazilian ranching territory, where pioneering spirit still trumps bureaucratic tidiness and things get done differently. She's now completely legit, of course, but back in the 1980s she was an experienced and supremely able pilot who hadn't needed to trouble the civil aviation authority of any country for a piece of paper testifying to that fact.

The Walker family were in earthmoving and construction, and back in the 1960s Anna's father Preben learnt to fly in a Neiva P-56 Paulistinha, a Brazilian-built aircraft you could easily mistake for a Cub. "On the day he got his licence," says Anna, "he lined us all up – me, my three brothers, our friends, the workers – and gave us all a flight. I was about six years old and it took my breath away. When my father had run out of passengers, there was me at the end of the line wanting to go up again. I had to stand on the front seat to see out. He stalled the plane, and I loved that feeling in the tummy as it just fell away – the 'little cold' we call it in Portuguese – and from that moment I was hopelessly hooked.

"I pestered him mercilessly to take me flying, and when he took up gliding I went



Top: Anna Walker on the wing of the Historic Aircraft Collection's Hawker Hurricane
Above: Anna, aged six, looks skywards as her father flies over their Brazilian airstrip, Amarais



that time a sort of debutante 'coming out' system for girls in Brazil and the idea filled me with horror. I just wanted to ride horses, ride motorcycles or fly planes and gliders. I swapped my debutante party for my brother Johnnie's old go-kart. If you live in a remote area there's a powerful urge to get out and travel, and Johnnie used to travel around to go-kart competitions. I would go with him, and at about 14 I got into go-karts in a big way. I was Brazil's first and only girl racing driver. Go-karts became a flying substitute. I got better as a driver and learned more as a mechanic. I would sell my dresses to buy tyres, engines, chains – I went rallying and endurance racing and graduated to saloon cars, Formula Ford

all new to me. It was party time – I'd never seen snow, and everything was fresh and wonderful. The best part was free access to information and no censorship. My father took me to the Farnborough Air Show and I saw the Red Arrows, and Ray Hanna doing aerobatics, and it never occurred to me that I could be an air show pilot one day."

Anna missed flying and suffered withdrawal symptoms from the trucks, tractors, go-karts and other machines. "There was nothing to drive at school, so I borrowed the milk float," she says. "It was the only moving thing I could get my hands on. The school had big grounds and I was able to hide it... it took two weeks but eventually word got out and they found my hiding place. The milk had turned to yoghurt and I was asked not to come back.

"Back home in Brazil I was even more race-mad than before and I didn't miss a single race. I built up my own racing team and



with him to the gliding club. He would let me take the controls, as would other people I flew with. I was a very worrying child – I would fly with anybody. A lot of people had airstrips on their property. I'd jump into any aircraft, and my parents would get calls from remote places saying oh, she's here...

"As my father graduated to bigger aircraft the whole family would fly with him. He would stall the aircraft with kids and dogs in the back, and we'd lift out of our seats and crash back down, laughing our heads off, shouting 'do it again, daddy!' Maybe I had too much of a good thing and was exposed to too much interesting flying at an early age – I was 13 when I went solo. I only realised aircraft were special when I went to primary school and discovered that not everyone had one. To me an aeroplane was like a tractor or a truck, and of course, by the time I was 13 I could drive a tractor and a truck – I worked on my father's earthmoving contracts, controlled the fuel uplift or worked in the warehouse, I knew there are 16 hydraulic lines on a Caterpillar 225 and I still get more excited about a tractor than about a Porsche."

Preben Walker got into restoring vintage aircraft and buying ex-military planes which he sold in the United States and elsewhere. "As a girl I'd be flying with him in a Beech 18 with my brothers, and my father would put me in the pilot's seat on top of a couple of cushions, say, 'hold this heading' and go down the back."

Anna was, she says, a tomboy. "I was the only girl in a male household. There was at

Top left: the young Anna with the family's Nieva P-56 Paulistinha at Amarais
Above: the Walker family with Stearman at Amarais - from left, Fernando, Johnnie, Preben, Anna and William
Above right: Anna's father Preben Walker in the cockpit of a Stearman at Amarais

and Formula VW. It was all highly competitive, and I won my share of races despite the fact that there were a lot of very good drivers – Ayrton Senna was one friend who went on to the very top.

"I had to find sponsorship because my parents did not indulge me – and unlike some people, I was totally uninhibited about looking for sponsors. I would go around town asking garages and businesses for support, and because I was the only girl racing, they got a good return on their investment – there would always be some mention of me in newspaper reports or on television. The fact I was regularly making it to the podium also helped."

At 15 Anna was sent to boarding school in England, and everything got a little strange. "For the first time I realised I was a girl," she says. "It was a convent school in Surrey, and when I arrived I was a bit of a mess – I was on crutches with a broken back and stitches in my face from a big go-kart shunt. But I told the girls I fell of a horse; that was something they could understand.

"I loved England from the first. Brazil had a military government and England was a huge contrast – all strikes and anarchy, and this was

workshop with half a dozen employees, and was making money looking after other people's cars, then a union strike forced the government to ban motor racing and it just stopped overnight. I was making my way as a professional racing driver and then all of a sudden I had no job, no degree and I was \$10,000 in debt.

"It took me a year to get back on my feet. I sold the cars to Argentina and kept enough parts to create hot-rods for illegal street racing. But I was living on no money in a borrowed apartment in Sao Paulo and getting about on a Honda 125 motorcycle I'd found abandoned in a ditch and repaired.

"My Danish grandmother spoke eight languages fluently and helped me to become an official translator; I bought a second-hand typewriter and started work. My father won contracts to build offshore oil rigs, and I did the technical translating for the company. He employed me as a non-destructive testing technician and I set up their welding school. I went to America to study and got a new set of skills so I was employable as a NDT quality control inspector in the marine world. We helped to pioneer a new welding technology, submerged arc welding. Not too many people had the patience for the robotics involved, but I would spend days fiddling with things to get them just right and get the welding procedures approved.

"We built four offshore drilling rigs and they're still operating today in the Arabian Gulf. I was 23 years old and had qualifications that would get me work anywhere in the world. I



Anna pictured last month with her ski-equipped Super Cub in the French Alps

went back to London because the North Sea was booming, and as a woman I couldn't get a work visa for Saudi Arabia, where most of the good jobs were then. Even in Britain I'd have to sign on as 'A. Walker' because they were only beginning to allow women offshore and it was best not to let them know in advance. Some men were surprised, but I never had any problems. I eventually settled down in London to finish my business studies and moved away from the offshore industry.

"With the first money I got I went to Cabair at Biggin Hill for a trial lesson. I didn't let on that I had done so much flying already, but they quickly sussed that it wasn't the first time I'd been in an aircraft. For my part I realised that despite all the hours and the types I'd flown, there was an enormous amount I didn't know. I'd never flown with a nosewheel, never read an aviation book, never used the radio, couldn't read the charts – there were gaping holes in my knowledge and I didn't know where they were. So it was best just to get my head down and do the whole lot, so I was sure not to have missed anything. I got my PPL at Denham on a Grumman AA5, not an aircraft I'm fond of. I didn't enjoy flying by numbers, but the most terrifying thing was radio! It really put me off. I would zig-zag up to Scotland to avoid having to use the radio. How many people get turned off flying because of fear of radio?"

"I went on to the Artistic Flying Club at Booker, where I flew aerobatics in a Cap-10 which was four times the price of the Cheetah, but I realised I needed formal tuition and joined the Tiger Club at Redhill, then run by Michael Jones. They had Tigers, Turbulents and a Stampe, and it was the best tuition you could have. You were encouraged to fly all the types, and you were constantly surrounded by British aerobatics team members and ex-champions teaching aerobatics and formation flying, and stressing general airmanship skills that are dying out. You flew aerobatics in a controlled environment and were critiqued by the best people, and on top of that there was a great social scene. I flew in the Tiger Moth Diamond Nine and became a check pilot for the Tiger Club and an aerobatic coach.

"I tried to buy a Stampe but the sale fell through, so instead I bought a Bucker

Jungmann, an aircraft I knew very well. They were quite common in Brazil, the Germans brought them over in the 30's. I won my first competition, then three out of every four I entered, and I was noticed by people who wanted to have their aircraft displayed. Owners and collectors are often looking for pilots to display their precious vintage aircraft, and they're watching not just to see how you fly, but how you treat the plane, how you understand and empathise with the machine. I've always had an understanding with machines; I had a reputation at home for being able to start engines – go-karts, lawnmowers, aircraft – that others had tried and failed. So they'd say, 'See if the girl can do it,' and quite often I could get it to go.

"It's important that you display the aeroplane, not yourself; it's very different from aerobatic competition. It's not between you and the judges, it's between the public and the aircraft. And believe or not, still sometimes after I land people ask me 'Where is the pilot?' But it's getting better, younger people are less likely to be surprised the pilot is a woman.

"About 10 years ago I gave up my day job, got a commercial licence and began to display the One2One Pitts S2B for a friend. I did my instructor rating at Redhill and the hardest thing about it was learning to live on toast. I adore instruction and I wish it was better paid so I could do more of it. I like *ab initio* training, and the reaction of people who fly for the first time. I like advanced aerobatics, sharing a passion with a like-minded aviator. I started banner towing as a commercial venture and I love it and do it country-wide, but it's hard work, always flying on the edge – it's hazardous and undervalued, you can't get people to pay what they should to cover the wear and tear on the aircraft and the cost of getting to the right place...

"As a display pilot you build a reputation, and people start to look on you as a possible pilot for their aircraft. The Harvard provides the grounding – there are loads of Harvards flying in Brazil where they're used by the military until quite recently. Richard Parker owned a Harvard, a Chipmunk, a Tiger Moth and a two-seat Spitfire and Pete Kynsey was his chief pilot, and through them I began flying the

Harvard in Britain. I did type conversions for Harvard owners who are pilots, and it's an interesting aircraft to instruct on. It is tricky to display, it's underpowered and it's easy to come unstuck. You must give it the utmost respect – I've seen too many people die in Harvards. It's still a great aircraft, heavy, almost lumbering, and it teaches you energy conservation and how to land properly. You need a number of hours on the Harvard to become insurable before you can think about flying the Mustang or the Spitfire. I've been displaying Harvards for the Fighter Collection and the Aircraft Restoration Company. I also display TFC's Beech Staggerwing which is a delight.

"The first Mustang I flew was owned by Tom Friedkin, the American collector and pilot. I used to see him around when I was flying the Fighter Collection's Bucker Jungmeister. He watched me for a few years, then he said: 'Why don't you fly warbirds?' 'Because nobody has asked me yet,' I said. Next year he came to England with a TF 51D Mustang, and Pete Kynsey checked me out on it. I got checked out in two hours including all upper-air work, emergencies and circuits. When I rang Tom to thank him, he urged me to fly more. 'Don't worry about the time,' he said. 'It's your aeroplane for the day – just go out and fly it'. So I did three more hours, and it was like Christmas. I did crosswind landings,

Anna and

The thing about flying a Hurricane is, you know you're in a fighter. The Mustang has the power, the Spitfire has the grace, but the Hurricane has the magic, the romance, the noise, the vibration, the fumes, the smell... it's a joy to fly, but it keeps you up to look for the Hun in the sun, to keep your head swivelling and your plane weaving.



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High over Kent in a Battle of Britain icon, Anna transits between displays

aerobatics, practice display sequences, making the most of every flight and not knowing when my next opportunity to fly it would be. I'm still very grateful to Tom for giving me the break into warbirds.

"When the TF went back to the US I had a call from Anders Saether who has a famous Mustang in the colours of Bud Anderson's Old Crow with the Scandinavian Historic Flight. He watched my first solo in it, then he topped up the tanks and said – go on, fill your boots. I flew from Kemble to Duxford to meet Carolyn (Grace). She got her Spitfire out and we went dogfighting, but she kept shooting me down! I felt like a greenhorn on a first mission, finding it impossible to turn inside the Spitfire. We did some formation flying and it was just a wonderful way to spend the day, she in the Spit, I in the Mustang, beating up Duxford – just two mates having fun.

"The Mustang has enormous power and gives you a huge kick when it accelerates, and it's very fast – the first flap limiting speed is 400 mph and it can dive to 500 mph. However it has a laminar flow wing section which has caught many people out when they've pulled it into stall buffet and not been prepared for the sharp wing drop. It's one of those wonderful aeroplanes to fly, just don't get low and slow and you'll be fine."

The Hurricane came along in 2009. Anna

says "It was a huge privilege to be asked to fly it since there are very few flying examples left in the world." G-HURI is owned by the Historic Aircraft Collection, run by Angus Spencer-Nairn and Guy and Janice Black, and while it was clear that Anna would fly an exciting display without making things too exciting for the owners, there was of course the novelty of having a lady pilot. "Bookings were good for the first season," says Anna. "Some airshow organisers book me in whatever aeroplane I can provide and I try to offer something different every year. In the 2010 season, in addition to solo displays, I am hoping to be flying the Hurricane at some events as the ATA pair with Carolyn Grace, in honour of the women who ferried nearly every type of aircraft during the war. We did that at Duxford last October and it was very well received. And now that I've found that in the Hurricane I can turn inside Carolyn's Spitfire, she won't shoot me down so easily!"

As well as displaying HAC's Hurricane and SHF's Mustang, Anna will be continuing with her other display flying and with her commercial work – see her website www.skytricks.com – and is working towards her FAA ATPL/IR for floatplanes with a view to flying a Twin Otter on floats in the winter. And everywhere she goes, she tries to encourage women to get into aviation. "The normal,

average woman can do this," she says.

"There's nothing superhuman, we're not super-anything – we just have a desire to do it.

"When I'm teaching women to fly I find that they're usually better suited than men to learn. They have the right temperament, do the preparation, and have better memories, but don't tend to persevere as much as men. Women tend towards under-confidence, which can hold them back. Even though they can take longer to learn to fly they invariably achieve high standards in the end. In general it's easier to teach men, but sometimes they tend towards over-confidence, which can be tricky for the instructor to deal with without dampening their enthusiasm. On the plus side they don't tend to over-analyse things that could trip them up in the earlier stages of learning; they just get on with it.

"With 50% of workforce in the UK consisting of women, it is still surprising not to see more women reaching for the skies, as a hobby or a career. It's not just in aviation, it's a societal thing – some people have very low expectations of girls and it's unusual for families to give them the same opportunities and education as boys. I'm fairly unusual in that I have had the opportunities, and where they were offered, I was able to take them. More women must reach out for these opportunities." ■

and the Hurricane

If you want that full fighter experience, fly a Hurricane, says Anna Walker

After the Mustang the Hurricane feels very much like a 1930s plane – an aircraft from a time before ergonomics was invented, an obvious development of the Hawker fighters that had gone before. In fact, it almost feels like a biplane with the top wing missing. It has Hawker characteristics and a strong family resemblance to its predecessors, the Hart, the

Fury, the Nimrod – unlike the Mustang and Spitfire, it evolved from older aircraft rather than springing from a blank sheet of paper.

Forward visibility is better than in the Spitfire or the Mustang because the cockpit is so high up; you have to climb up to the third floor to get in. It's very difficult to see behind you, however. There's a small rear-view mirror that

looks like it came off a vintage car, but in-flight vibration makes it virtually impossible to see anything with it. You need eyes in the back of your head.

The cockpit is very deep, the seat and pedal are adjustable, and the controls look hand-made. The trim wheel is of polished wood, the rudder pedal adjustment star-shaped wheel



Anna Walker flies the Historic Aircraft Collection Hurricane, with Carolyn Grace in the Grace Spitfire. They will fly together in a tribute to the wartime ATA at air shows this year

Richard Paver



between your feet is beautifully machined aluminium, and the aircraft has a wonderful smell to it. The longerons are visible from the cockpit, and when the undercarriage retracts into what seems like an impossibly small space, it all goes dark beneath your seat.

The aircraft was designed around the Rolls Royce Merlin engine, and in 1936 it created

something wholly new in terms of power-to-weight ratio. In some ways the Hurricane was more revolutionary than the Spitfire – it was the first allied fighter with a retractable undercarriage, and it had a VP prop almost from the outset. I think it can be said to have the best prop-engine combination for it.

The only thing most pilots agree they didn't

get quite right was the undercarriage and flap retractor, a single lever set in an H-shaped slot which could have been designed with the intention of catching the pilot out, especially in the smoke of battle. With the lever on the right side of the H it cycles the flaps, and when it's over to the left it cycles the undercarriage.

Quite apart from the opportunities for



confusion, the system often jammed with the flaps or the gear up or down, in which case you have to return it to the 'neutral' position and wait for it to complete its cycle, then try again. Problems are compounded by the fact that the gear limiting speed is just 104 knots, so you often saw people climbing quite steeply after take-off while they struggled to get the

gear up, in order to stay below the limiting speed. Luckily you didn't need flap for a normal take-off so you didn't have to struggle with both flap and undercarriage; but if you're forced into a go-around you really need a quick brain and nimble fingers. Somewhat surprisingly, this was never changed throughout the production life of the

Hurricane. I've experienced a jam in flight and it took time and thought to sort it out.

The Hurricane has a 1930s fuel system, with a reserve, two main and two auxiliary tanks, and like the flap and undercarriage lever, the fuel gauge is 'really clever'. It only has one gauge, which tells you what's in the tank you've selected it to, not the one the

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engine is running from. There's no gauge for the auxiliary tanks, just lights indicating there's fuel. You start by using up what's in the main tanks, then gradually pump fuel from the auxiliary tanks into the main, but if one times it wrongly and there's still too much fuel in the main tanks, the fuel from the aux tanks will spill out, and there's nothing to tell you that you're dumping fuel.

The Hurricane flies as it looks, and flying it fills me with respect for the young men who went to war in it, and indeed for the men and women of the Air Transport Auxiliary who flew thousands of hours delivering the aircraft. The noise and the heat are the most overwhelming sensations. In the Hurricane the Merlin is right there in front of you – open the throttle and it feels like the engine is mounted in your lap. There's little insulation, and the only thing that keeps the heat down from the radiator below you is the fact that the cockpit is so draughty. It must have been interesting at high altitude, alternately frying and freezing.

The stick hinges just below the spade-grip stick – there wouldn't be enough room in that cockpit to get full movement on a conventional stick – and the controls are very light and responsive, giving you all the rudder, elevator and aileron you need. The Hurricane has quite light ailerons and is only just stable in pitch; the pilots who flew them during the war say it was a good gun platform. The brakes are pneumatic so it's important to check whether there is enough air pressure before taxiing. In time of war pneumatic pressure was even more crucial because the ammunition feed system was also air operated.

On the take-off run, the tail comes up almost naturally and the Hurricane gets airborne without much effort – just release the



back pressure and it will fly. For the young people who flew the aircraft, it must have seemed very sophisticated in its day, a great improvement over what they'd flown before – it was at least 100 mph faster than the Fury – but a logical progression, so they'd feel almost familiar with it from the start. As a fighter, it was an advantage that it could be easily repaired in the field by engineers who were familiar with the steel tube, aluminium and wood construction of previous Hawkers. The undercarriage was wide and forgiving, and when it failed to lower hydraulically, one

Above: the Hurricane's cockpit is very deep and rearward view is poor
Left: undercarriage and flap lever might have been designed to cause maximum confusion
Below: the beautifully-crafted mahogany trim wheel speaks of a different era
Right: if it looks right it'll fly right, as Sir Sydney Camm used to say
Bottom right: star-shaped rudder trim and pneumatic pressure gauge



Richard Payer



simply kicked a lever on the left side of the cockpit to drop the gear, and did a few flat turns to lock it into position. They'd quickly get used to the big pitch changes you got with flaps and gear and with that big fat wing the Hurricane could be safely flown at very low speeds without stalling.

I do everything at low power settings – you have to be very gentle with such a unique and venerable machine. In its day the pilot might have used up to 12 pounds of boost, but even in display aerobatics I never get close to that level. We operate the engine for maximum life these days. Even with more than 1,000 horsepower and six pounds of boost, you're going to throw a lot of height away getting the Hurricane to accelerate for aerobatics so energy management and power limitations are your first concerns. In a display, I tend to come in at 240 kts and do the high-energy manoeuvres first, the loop, the Cuban, the barrel roll – I'm always aware that the barrel roll is one of the most dangerous manoeuvres, and probably one that has killed more pilots than any other because they underestimate the energy requirement. But in the display, once you've dissipated some energy it's impossible to get

it back, so it's time for fly-bys and wingovers.

It's really benign in the stall and gives you so much warning you'd have to be a complete gorilla to miss it. It does not like crossed controls because the rear fuselage blanks the tail, so you have to make sure you're in balance. On landing, you need to leave a trickle of power in the flare, just before the three point touchdown, to give you elevator authority, but too much power will tend to allow the tailwheel to touch first and you'll bounce onto the mains. Too little power or a badly judged flare you bounce the mains first, and either way you'll end up bunny-hopping down the runway. It's not the easiest of planes to grease it on.

With all its idiosyncrasies the Hurricane is very much of its time, with flying characteristics that are clearly a product of the 1930s, but no other aircraft quite evokes the fighter feeling you get from the Hurricane. One must try to be as unemotional as possible during a display, but afterwards the experience comes home to you in a very special way. I feel honoured and privileged to be able to share such a unique icon with the air show spectators who really appreciate aviation history. ■