

Dark Ops

Flying at night is one thing. But imagine cruising at Mach 3 through pitch-black skies in complete radio silence... By Dan Tye



SR-71 Blackbird pilot
Colonel Rich Graham



IT'S the aircraft that thousands of us had as a poster on our bedroom wall. When photographs of the SR-71 Blackbird first appeared in 1964, people couldn't believe it was possible for humans to build something so incredible. Some even thought it was the result of engineers harnessing extra-terrestrial technology.

The SR-71 still looks as advanced today. And for all the hours I spent looking at that poster on my wall, I couldn't get my head around just how good a pilot you'd have to be to be able to fly it. How could anyone get to the point where they

could fly something so fast and advanced?

One person who realised that dream of flying the SR-71 is retired USAF pilot Colonel Rich Graham. He's written books on the Blackbird before but his latest tells us how to actually fly it.

If you have the slightest amount of pilot in you, you will love it. He describes everything from engines start-up, to flying 15 miles high at Mach 3.2, to touching down at 155kt. There's even the first ever printout of an SR-71 pilot's checklist. Read through this and you'll see it's not all that different from the checklist for your Cessna. It's even written in the same font.

So if you've ever wondered how anyone managed to fly a Blackbird, here's what Rich has to say:

GF: When did you first learn to fly?

RG: My dad was a Navy pilot and soloed me out in 1959 in a Piper Colt. Flying came natural to me as he was always taking me up for flights as a youngster. I worked at the local airfield by cleaning aircraft, pumping gas, mowing grass and propping aircraft and I was paid with flight hours... my dad was free. My dad didn't give me any idea that I was ready to solo. We made a full stop, pulled off into

PHOTO: Rich Graham



the grass and he said, 'It's all yours'. The Colt doesn't have flaps so that taught me some pretty good sideslipping skills.

GF: When did you hear about the Blackbird program?

RG: I was actually at college and saw it on the news in 1964. I remember seeing it and thinking wow! It was like some kind of futuristic starship. I immediately blew it out of my thoughts, as there was no way I'd ever get to fly it. In 1974 I was based at Okinawa, Japan and flying F-4 Wild Weasels. We taxied out as a four-ship and often stopped just to watch the SR-71 flying in the traffic pattern. I thought there's one lucky pilot up there. At the time I thought it was so far out of reach and wondered if I'd ever be able to fly it.

GF: Was it easy transforming from a regular pilot to an SR-71 pilot?

RG: We all had over 100 hours in the simulator before we were even let near the aircraft. And this was in the days that simulator technology was in its

infancy. We had 3-axis motion but no visuals! I flew 134 hours in the sim before I flew the SR-71 for real, but I felt right at home. The only differences were the smells, sounds and feel.

GF: The SR-71 has this mystical aura but just how difficult is it to fly?

RG: The Blackbird was always a basic straight and level machine for reconnaissance.

It wasn't super manoeuvrable even though it looks like it should be. It carried lots of advanced cameras which needed a stable platform to operate from.

Sure, some of the guys had difficulty flying it, but the hardest part was mental... you couldn't just fly wherever you wanted. On every mission you had to stay on the 'black line'. Even in GA aircraft you can make a change to your routing, but in an SR-71 we couldn't do that. This was very hard to adjust to! In the selection for the program, I had a two-hour interview with a shrink. I could never figure out why. Now I know, they were trying to filter

/// AIR REFUELLING AT NIGHT OVER THE EAST CHINA SEA WAS VERY DEMANDING ON PILOTING SKILLS ///

COLONEL RICH GRAHAM, SR-71 PILOT & BOOK AUTHOR

out the rogue pilot who doesn't have the mental discipline to stick to flying on the black line.

Having said this, I was never bored sitting at Mach 3.0+ over and around foreign countries for hours on end. I was often hanging on with bated breath for the next task or what the bad guys might be up to.

The focus of the training dispelled any of the nerves.

GF: What was your first solo in the SR-71 like?

RG: Very much like the flights I'd flown in the sim except you had all the new noises and smells. I flew five flights in the two-seat SR-71B model trainer with my instructor pilot, Lee Ransom. ▶



PHOTO Rich Graham

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PHOTO Lockheed Martin

A SIGH OF RELIEF COMES OVER YOU AT FULL TANKS. THEN YOU CLIMB INTO THE NIGHT SKY

COL RICH GRAHAM, SR-71 PILOT

Then it was time to 'solo' in the SR-71A model with my Reconnaissance Systems Officer (RSO), Don Emmons, in the back seat for the first time. We flew together for over seven years.

GF: What was your favourite part of the mission?

RG: I still find it amazing that you could fly an SR-71 halfway around the world, refuel 4-5 times, come back and land and do it all in total radio silence.

GF: How did you get to grips with all the aircraft's systems?

RG: It's surprising how the sim just embeds everything in your mind. Everyone has their own study methods though. We'd fly twice a week in the sim and around 2-3 flights per month in the SR-71. The rest of the time we flew T-38s. In the no-flap configuration it came close to simulating the final approach of the SR-71.

GF: What was your most challenging flying?

RG: For me, air-to-air refuelling at night over the East China Sea was particularly demanding on pilot skills. Here you are, flying on a pitch-black night, over the middle of an ocean, 500 miles from the nearest land. It's turbulent, and you're flying in thick clouds trying to stay connected to the boom. Just to stay in position on the boom, all axes of the flight controls are moving, as well as the throttles.

As the clouds thicken and the moisture content increases, St Elmo's fire begins dancing over the windshields. You've been in the pressure suit for over three hours and your eyes are dry, irritated and burning. Every lightning flash is highly magnified at night and the tanker's director lights become difficult to see. Your night vision is ruined with each flash.

As you approach your last 5000 pounds of fuel, the SR-71 becomes thrust limited. You have to light the left afterburner and control the refuelling position using the right throttle. You also need 10 degrees of left bank to compensate for the yaw from the extra thrust from the left engine. Now the tanker goes into a left turn to stay in his racetrack-orbit and you need more power and control inputs just to stay in position.

A sigh of relief comes over you at full tanks. Safely clear of the tanker, you light the afterburners and climb out into the night sky. I'm positive this is when my hair started turning grey!

GF: Could a PPL holder fly an SR-71?

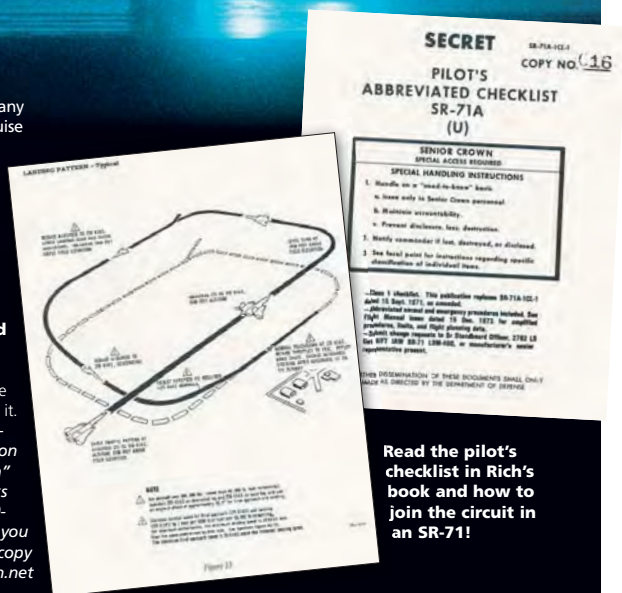
RG: We actually flew a number of non-pilots as passengers in the Blackbird's SR-71B model trainer. They were mainly newspaper journalists, senators and VIPs. Anybody with some degree of flying background would be allowed to fly up front with the instructor pilot in the back of the dual controlled trainer. The

handling is not the same as any other aircraft at Mach 3+ cruise and was mostly flown on autopilot. One degree of pitch change could give an instantaneous rate of climb or descent of 3000 feet per minute! Takeoff and landing certainly required those stick and rudder skills.

GF: Finally, does the world seem a much smaller place now?

RG: It did when I was flying the SR-71. It's amazing that we did it.

Rich's book "Flying the SR-71 Blackbird: In the Cockpit on a Secret Operational Mission" is available from Motorbooks International. ISBN 13: 978-0-7603-3239-9. Price £16.99. If you would like an autographed copy email Rich at habu5@verizon.net



Read the pilot's checklist in Rich's book and how to join the circuit in an SR-71!



PHOTO Lockheed Martin