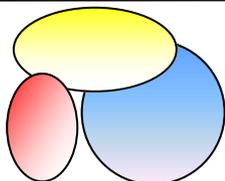




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# Bristol Wings



Newsletter of the LAA Bristol Wing

March 2011

## NEXT MEETING—Hercules propellers

Rupert Wasey of Hercules propellers will be coming to give us a talk for our March 2nd meeting.

Rupert is very knowledgeable about propellers in general. He makes custom wooden props at his premises in Stroud; having developed a computer model for designing profiles specific to each aircraft and machining the props using a router.

While this subject does not directly affect the PA28s surely BAC members will still find the process interesting.

Reminder we are back in Room 7. We won't be using the old rooms again until our AGM in September.



## LAST MEETING - Phil Mathews' talk on his Seaplane rating

Last month Phil Mathews of Cotswold Aero Club came to talk to us about float planes. Phil did his seaplane rating at Kenmore Air in Seattle but recently had a few days holiday in Scotland flying G-DRAM, a Reims Cessna FR172F amphibian. He spoke about the seaplane rating and the training required to attain it: PPL(A) pilots need 5 hours + flight test + a seamanship exam, though if you are a qualified yachtsman you may be able to skip that.

Phil answered some of the bemusing questions pilots have about float planes like "How does one do a run up with no brakes?" and "What happens if a lake is not long enough?" Answers: "You just find a bit of open water!" and "Short take off's can be done in a circle." Quite surprisingly a bit of choppy water helps get airborne while a flat calm takes longer. England has no public lakes that a float plane can use but Scotland has different laws (as usual) so it's a lot easier there. We also had some "How not to do it" videos including two water landings showing amphibians splashing in with their wheels down. Not recommended unless you like a cold bath!

The following evening a few of our members joined BAC at their annual meal and had a very enjoyable time chatting over the delicious food, then we were entertained by Ian Kirby recounting many tales of his time as flight engineer on Concorde.

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**Where to go...**

Free landing vouchers for March in:

**Flyer Magazine:** Castle Kennedy, Cambridge, Cumbernauld, Damyns Hall, Old Buckenham and Sutton Meadows.

**Pilot Magazine:** Andrewsfield, Bodmin, Eshott, Sherburn-in-Elmet, Tibenham and White Waltham,

**RAeS Local meetings**

**Date:** Thursday 24th March 2011

**Subject:** A400M Flight Testing Programme

**Speakers** Ed Strongman, Chief Test Pilot Military Programs, Airbus

**Venue:** Concorde Room, BAWA leisure Centre, Southmead Rd, Filton, Bristol

**Times:** Refreshments at 18 00 for Lecture start at 18 30pm

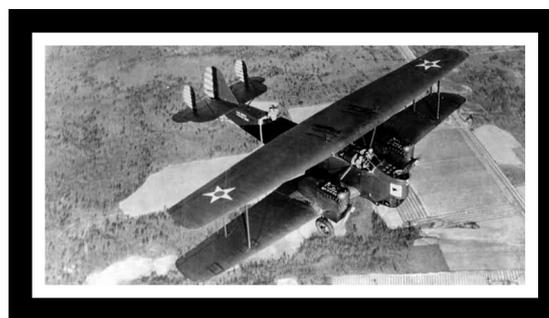
Any attempt to stretch fuel is guaranteed to increase headwind.

**Quiz****Last month's picture:**

Once again Trevor Wilcock has come up with the correct answer—Keystone LB5. His deduction was: "It's clearly a US Army Air Corps bomber, late 1920s, with large rectangular Liberty engines - and the US didn't have that many bombers. The rest was down to Wiki."

Doesn't anyone else know any of these aircraft or are you just too shy to offer a suggestion?

Well Trevor has given the rest of you a chance because he has offered this month's picture and his only clue is: it's British!

**Dawn to Dusk 2010**

*We've received the following from David Joyce and would like to offer the Wing's heartfelt congratulations to both David and Patrick on a terrific achievement :*

"A number of you have very generously sponsored Patrick and me in our efforts to win the Dawn to Dusk Challenge and raise money for the Motor Neurone Disease. This link tells you how we got on and I thought might interest you. It is at <http://www.youtube.com/watch?v=DRlobPxXhnl>

This is not asking you to contribute again, but should there be some of you who waited to see whether we achieved anything, then we and the MND community would be very grateful for anything you like to give via [www.justgiving.com/halfmillionislands](http://www.justgiving.com/halfmillionislands) or send to Patrick or me."

## From an SR-71 pilot

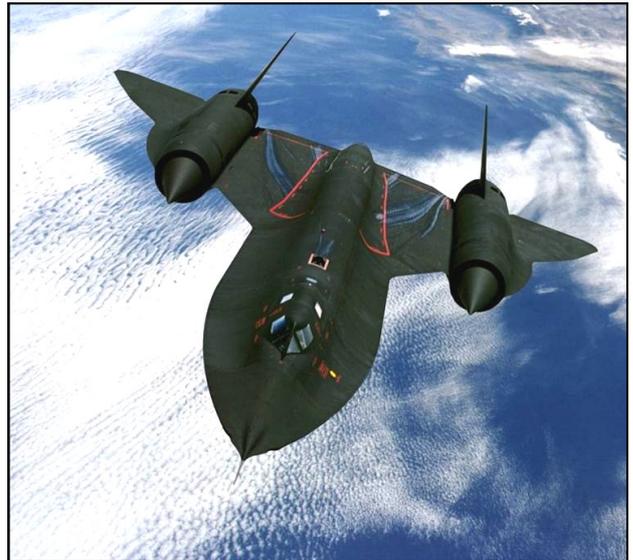
*This article, which was written in 2003, is continued from last month...*

The plane was flying a mile every 1.6 seconds, well above our Mach 3.2 limit. It was the fastest we would ever fly. I pulled the throttles to idle just south of Sicily, but we still over-ran the refuelling tanker awaiting us over Gibraltar ...

Scores of significant aircraft have been produced in the 100 years of flight following the achievements of the Wright brothers which we celebrate in December. Aircraft such as the Boeing 707, the F-86 Sabre Jet, and the P-51 Mustang are among the important machines that have flown our skies. But the SR-71, also known as the Blackbird, stands alone as a significant contributor to Cold War victory and as the fastest plane ever — and only 93 Air Force pilots ever steered the 'sled,' as we called our aircraft.

The SR-71 was the brainchild of Kelly Johnson, the famed Lockheed designer who created the P-38, the F-104 Starfighter, and the U-2. After the Soviets shot down Gary Powers' U-2 in 1960, Johnson began to develop an aircraft that would fly three miles higher and five times faster than the spy plane — and still be capable of photographing your license plate!

However, flying at 2,000 mph would create intense heat on the aircraft's skin.



Lockheed engineers used a titanium alloy to construct more than 90% of the SR-71, creating special tools and manufacturing procedures to hand-build each of the 40 planes. Special heat-resistant fuel, oil, and hydraulic fluids that would function at 85,000 feet and higher also had to be developed. In 1962, the first Blackbird successfully flew, and in 1966, the same year I graduated from high school, the Air Force began flying operational SR-71 missions. I came to the program in 1983 with a sterling record and a recommendation from my commander, completing the week-long interview and meeting Walt, my partner for the next four years. He would ride four feet behind me, working all the cameras, radios, and electronic jamming equipment. I joked that if we were ever captured, he was the spy and I was just the driver. He told me to keep the pointy end forward.

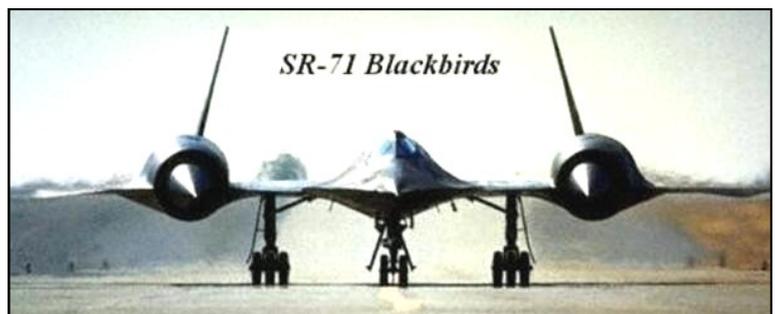
We trained for a year, flying out of Beale AFB in California, Kadena Airbase in Okinawa, and RAF Mildenhall in

England. On a typical training mission, we would take off near Sacramento, refuel over Nevada, accelerate into Montana, obtain high Mach over Colorado, turn right over New Mexico, speed across the Los Angeles Basin, run up the West Coast, turn right at Seattle, then return to Beale. Total flight time: two hours and 40 minutes.

One day, high above Arizona, we were monitoring the radio traffic of all the mortal airplanes below us. First, a Cessna pilot asked the air traffic controllers to check his ground speed. 'Ninety knots,' ATC replied. A Bonanza soon made the same request. 'One-twenty on the ground,' was the reply. To our surprise, a navy F-18 came over the radio with a ground speed check. I knew exactly what he was doing. Of course, he had a ground speed indicator in his cockpit, but he wanted to let all the bug-smashers in the valley know what real speed was. 'Dusty 52, we show you at 620 on the ground,' ATC responded.

The situation was too ripe. I heard the click of Walt's mike button in the rear seat. In his most innocent voice, Walt startled the controller by asking for a ground speed check from 81,000 feet, clearly above controlled airspace. In a cool, professional voice, the controller replied, 'Aspen 20, I show you at 1,982 knots on the ground.' We did not hear another transmission on that frequency all the way to the coast.

The Blackbird always showed us something new, each aircraft possessing its own unique personality. In time, we realized we were flying a national treasure. When we taxied out of our revetments for take-off, people took notice. Traffic congregated near the airfield fences, because everyone wanted to see and hear the mighty SR-71. You could not be a part of this program and not come to love the airplane. Slowly, she revealed her secrets to us as we earned her trust.



One moonless night, while flying a routine training mission over the Pacific, I wondered what the sky would look like from 84,000 feet if the cockpit lighting were dark. While heading home on a straight course, I slowly turned down all of the lighting, reducing the glare and revealing the night sky.

Within seconds, I turned the lights back up, fearful that the jet would know and somehow punish me. But my desire to see the sky overruled my caution, I dimmed the lighting again. To my amazement, I saw a bright light outside my window. As my eyes adjusted to the view, I realized that the brilliance was the broad expanse of the Milky Way, now a gleaming stripe across the sky.

Where dark spaces in the sky had usually existed, there were now dense clusters of sparkling stars. Shooting stars flashed across the canvas every few seconds. It was like a fireworks display with no sound.

I knew I had to get my eyes back on the instruments, and reluctantly I brought my attention back inside. To my surprise, with the cockpit lighting still off, I could see every gauge, lit by starlight. In the plane's mirrors, I could see the eerie shine of my gold spacesuit incandescently illuminated in a celestial glow. I stole one last glance out the window. Despite our speed, we seemed still before the heavens, humbled in the radiance of a much greater power... For those few moments, I felt a part of something far more significant than anything we were doing in the plane. The sharp sound of Walt's voice on the radio brought me back to the tasks at hand as I prepared for our descent.

The SR-71 was an expensive aircraft to operate. The most significant cost was tanker support, and in 1990, confronted with budget cutbacks, the Air Force retired the SR-71.

The SR-71 served six presidents, protecting America for a quarter of a century. Unbeknownst to most of the country, the plane flew over North Vietnam, Red China, North Korea, the Middle East, South Africa, Cuba, Nicaragua, Iran, Libya and the Falkland Islands. On a weekly basis, the SR-71 kept watch over every Soviet nuclear submarine and mobile missile site, and all of their troop movements. It was a key factor in winning the Cold War.

I am proud to say I flew about 500 hours in this aircraft. I knew her well. She gave way to no plane, proudly dragging her sonic boom through enemy backyards with great impunity. She defeated every missile, outran every MiG, and always brought us home. In the first 100 years of manned flight, no aircraft was more remarkable.

The Blackbird had outrun nearly 4,000 missiles, not once taking a scratch from enemy fire.

On her final flight, the Blackbird, destined for the Smithsonian National Air and Space Museum, sped from Los Angeles to Washington in 64 minutes, averaging 2,145 mph and setting four speed records.

