

Fabio Elsas of Sao Paulo, Brazil, interviewed Col. Rich Graham in 2002. This interview is presented here with permission from both. The original document is available for download at the following URL: <http://www.habu.org/habus/graham/interview-elsas.pdf>

**Fabio Elsas:** *If we could go back in time and you were given all the power necessary, what would you change in the way the program was handled so as to prevent its premature retirement?*

**Rich Graham:** It is difficult to even look back in time and figure out what changes could have possibly saved the SR-71 from early retirement. I believe the most important change that might have kept the Blackbirds flying back in 1990 was to upgrade the imagery to what is called “real-time” or “near real-time.” Real-time imagery is presented immediately to a ground site for use to a commander. Near real-time imagery has a delay involved before it can be seen.

The SR-71 was not upgraded with anything over the years in terms of getting the imagery to the user. We had to takeoff, fly over the area of interest, gathered intelligence, land back at our base, have the intelligence analyzed, and then disseminate it to the user. That process took time, and with the advent of secure satellite transmission capability, real-time and near real-time imagery was becoming the wave of the future.

When the SR-71s were re-activated again in 1995, the first modification they made to the two Blackbirds was to incorporate a downlink antenna and the necessary hardware to allow the planes to provide near real-time imagery to the user in the field. An onboard recorder continuously stored the intelligence. As soon as the SR-71s were within 300 miles of a ground site, they could download all of the intelligence they had gathered. If they were within 300 miles while they were actually gathering the imagery, it could be downloaded immediately.

The second step I would have taken to keep the SR-71s flying was to keep the planes out of the Strategic Air Command (SAC). I never felt as if the SR-71 reconnaissance role was well suited to be in a Air Force command that had a primary role as a nuclear deterrent. The nuclear capable B-52 and B-1 bombers, as well as the ICBMs were SAC’s means of keeping peace during the Cold War period. That is where all the emphasis was, and consequently, where all the money went. The SR-71 program was like a stepchild in the eyes of SAC.

I would have rather seen the SR-71 program in the CIA, NSA, or some other intelligence related organization over the years. I think our funding levels would have been greater over the years and our planes upgraded to keep pace with technology.

**F.E.** *According to your new book's epilogue, NASA is "giving up" on its SR-71 fleet - the last flyable Blackbirds on Earth. Is this because there are no current research programs that require the use of the planes or is it more of a funding problem? Will all of them have their wings cut so that even the most remote possibility of reactivation (for research or recce purposes) ceases to exist?*

**R.G.** As of now, NASA does not own any of the Blackbirds. About a year ago, they turned back the planes, parts and engines to the Air Force Museum. The museum has been in charge of determining where and who should get the few remaining SR-71s. NASA ran out of money quickly for their SR-71s and tried to get universities and aerospace industries to fund their particular projects that required a high-speed test bed like the SR-71. There were no takers and NASA stopped flying the planes over 3 years ago.

Blackbirds that were flown into museums during the 1990 retirement could still fly again. However, that would be a monumental chore. Since most museums can not afford the cost of having an SR-71 flown in, or don't have a suitable runway, their wings have been cut in order to transport them around the United States and overseas to England. Those planes could never fly again.

**F.E.** *Do you think that satellites and UAV's will ever match the abilities of the A-12/SR-71 family?*

**R.G.** Satellites might someday have a capability better than the SR-71, but currently, that is not the case. Satellites are very predictable in their orbits. Foreign countries know as well as we do when a satellite will be passing overhead and can hide what they are doing. Even more, they can actually deceive what they are doing by giving the impression they are up to working on project, while in fact, they are doing something completely different.

**F.E.** *If you were face-to-face with Mr. Robert McNamara (the man who issued the order to destroy all the tooling and jigs used to build the SR-71's), what would you tell/ask him?*

**R.G.** First, you need to understand that all aerospace facilities that produce government equipment, like planes, do not own the jigs and tooling to produce them. It is called Government Furnished Equipment (GFE), bought and paid for by the U.S. government. They have the all the rights to it and can order it destroyed whenever they believe it is in the best interest of the government.

Having said all of that, the day Kelly Johnson received a telegram, from the then Secretary of Defense, Robert McNamara, to destroy all of the tooling necessary to build any more SR-71s, he said it was the saddest day of his life. My question to McNamara would simply be, "Why?" I am aware that there were other planes being thought of at the same time and in competition with the SR-71. It has often been thought that McNamara, did not want any funding competition from the SR-71s and made it impossible to produce any more of them. We will most likely never know the real motive behind his decision.

**F.E.** *The SR-71 was developed as a faster replacement for the U-2; however, it's been long retired while the U-2/TR-1 are still active. What is your opinion about this fact?*

**R.G.** Yes, the SR-71 was a faster plane than the U-2, but was never considered a "replacement" aircraft. After Gary Powers was shot down over Russia on May 1, 1960, it became imperative for the United States to build a reconnaissance aircraft that would be impervious to enemy defenses. A plane that could fly faster and higher than the U-2. It

was known that developing a plane with Mach 3+ speeds and altitudes above 80,000 feet was the key to keeping it out of harms way.

In the reconnaissance community, we have always considered all of the United State's assets as complementary to each other...the U-2, SR-71, and satellites. Although there is some overlap in their capabilities, each has a distinct advantage over the other one. When you combine reconnaissance and intelligence gathering from all three assets, you get a much clearer picture of what is happening.

The U-2 has proven itself well ever since it began flying in 1955. It has a unique capability of being able to gather reconnaissance over long periods, better known as “dwell” time, up to 12-14 hours, depending on flying time to the area of interest. The downside to the U-2 is that it is vulnerable to enemy defenses, making it a “standoff” platform. It can not fly over, or near highly defended areas where it might encounter surface-to-air missiles or enemy aircraft.

The U-2 is relatively cheap to operate compared to the SR-71. The last comparison I saw between the two aircraft had the U-2 at \$8,000 per flying hour and the SR-71 at \$35,000 per flying hour. However, you need to consider that the U-2 typically needs to have other support aircraft airborne while it is flying, just in case enemy aircraft try to intercept it, the SR-71 needs nothing. The last estimate I saw projected the U-2s to continue flying until the year 2030, which I think is somewhat optimistic.

**F.E.** *The timeline at the end of your book shows that 2 days after the terrorist attack on the WTC, the Pentagon asked about the possibility of reactivating the SR-71 - again. Can you tell us more about this? Why wasn't that possible?*

**R.G.** This is not an uncommon practice in the military, to be asking a questions about “what if.” In military parlance, these are what we called “what if drills.” Someone high up in the chain of command will throw out the question and suddenly there is a mad rush in the Pentagon and at the unit level to provide the answer.

As soon as Desert Storm began, the question was asked about what it would take to bring back SR-71s. Two days after the World Trade Center was attacked by terrorists the question was asked again. The answer is always the same...yes. Once the costs of bringing SR-71s out of retirement are known, the interest goes away quickly.

**F.E.** *When you joined the program, did you ever imagine that one day you'd be the Squadron and later the Wing commander?*

**R.G.** While I was in college I remember the day in 1964, as I watched President Johnson on TV announce the existence of a super-secret plane capable of flying at three times the speed of sound. I had my private pilots license at the time and thought that plane was too futuristic for anyone to be able to fly. Never, in my wildest imagination could I dream that 10 years later I would be sitting in the cockpit flying an SR-71!

The SR-71 program was good to me as far as my Air Force career went. I was fortunate to be selected as the SR-71 Squadron Commander in 1980 and six years later as the 9th Wing Commander at Beale AFB. The high visibility that the SR-71 held within the military community aided my career tremendously. That's the reason why I give royalties from the sales of my two books to the Smithsonian Air & Space Museum. The money goes to the "J.T." Vida Memorial Fund, for the restoration and display of their Blackbird (tail number 972). So far over \$17,000 has gone into the fund.

**F.E.** *How was it to be current on all aircraft types flown by the 9th SRW (U-2, SR-71, T-38 and KC-135Q), from an "aviation buff" point of view?*

**R.G.** One of my greatest flying experiences was at Beale AFB when I was the Vice Wing Commander and Wing Commander, 1986 to 1988. The rule at the time was that all of the senior wing staff pilots had to check out in all of the wing's airplanes. The rule was designed primarily for most of SAC's bases that had only tanker and bomber aircraft. At Beale we had the U-2, T-38, SR-71, and KC-135Q.

Good fortune was with me again! I soloed out and flew the U-2 about twice a month. Went to a weeks short course and received a "staff" check out (requiring me to have an IP onboard sitting in the right seat) in the KC-135Q and flew it from the left seat. I flew it about 3-4 times a month and on deployments to England and Japan. I requalified in the T-38 and flew it about 4 times a month. Since I had already flew the SR-71 for seven years previously, I only flew it twice more with an IP onboard the "B" model trainer, and kept current by flying the SR-71 simulator. Life was good...flying all four of the wing's airplanes at the same time!

**F.E.** *Which experience ranks higher: flying F-4's on combat missions in Vietnam or flying over the Barents Sea in the Habu?*

**R.G.** It is difficult to compare my flying experiences in Vietnam and those in the SR-71 program. I gained a tremendous amount of flying experience from both, as well as learning a lot about my own flying potential. Flying 210 combat missions in Vietnam was rewarding from the standpoint that you were finally doing something you were trained to do. There were many good times as well as sad time flying in Vietnam. In combat, you gained a bond with fellow aviators that can't be reproduced in any other flying arena, since the balance of life and death depended on each other's flying abilities.

The SR-71 program was a unique experience. The squadron was comprised of a small number of pilots and navigators (RSOs). When I entered the program in 1974, we had a total of nine pilots and nine navigators combat ready to fly the daily operational missions. That is a very small unit! Consequently, we were a close knit group, flying the world's fastest plane. Flying secret reconnaissance mission around the world was a dream come true. Because of our unique operation and security classification, very few people knew what we were doing, and that was nice. The less they knew, the more freedom we had to run and manage our own program.

**F.E.** *Please give the reader a brief description of life at Mach 3.2 / 85,000 ft.*

**R.G.** Cruising at Mach 3.2 at 85,000 feet gave you a tremendous view of the world. Some of the sights were unbelievable. To be able to see stars out in the daytime and a dark sky above you was a strange sight to adjust to seeing. At night, stars and planets seemed to appear as three-dimensional...as if you could reach out and touch them. The atmosphere was so pure and clear at that altitude. When we flew over the Atlantic Ocean, enroute to Europe, the Northern Lights seemed to surround the entire cockpit and danced gracefully around you in brilliant colors. The slight curvature of the earth was discernable looking from horizon to horizon out the cockpit windows.

It was a very quiet cockpit. With the pressure suit on, there was very little background noise. The only sound you could hear was the inhalation and exhalation of you breathing 100 percent pure oxygen. The intercom system allowed you to stay on a "hot mike" position so you could hear each other talk, or just yourself talking. The "cold mike" position kept the communications quiet between cockpits until you hit the mike button to talk. Our operational missions were strictly business, and that's the way most of the crews kept their conversations. As you approached the sensitive area, where you could encounter enemy threats, our cockpits became very quiet and focused on the business at hand. We only spoke to each other for the important items that needed to be discussed...no extraneous conversations. Once you were out of the sensitive area, the conversations could drift on to other subjects.

The SR-71 cockpit is busy from a pilot's perspective. You are managing and monitoring many systems, especially during the climb and acceleration to Mach 3+ and 80,000 feet. Once established at cruise, the cockpit is not quite as busy, but now you are focus on other important matters. The descent is busy also, as it happens very quickly, and again, you have to manage and monitor many systems on the way down. Refueling is relatively easy, but you have to stay on the boom for around 15-20 minutes to get a full load of gas. Bad weather conditions can make the refueling tricky and nerve racking at times.

**F.E.** *Describe the scariest situation you ever lived while flying the Habu, as well as the most rewarding one.*

**R.G.** Fortunately, I never had a scary situation in the SR-71. All my flights were relatively uneventful. Had a few MIGs try to intercept me, but that happened to everyone. No real major emergencies with the Blackbird...had a few engines run rough and necessitated us to land away from home. I would love to be able to tell you a good "war" story of some harrowing experience with the SR-71, but it was an honest plane to fly, even though we flew it on the edge of the envelope for the majority of the time.

I can't single out any one particular flight that was more rewarding than another one, because they *all* fit that category. It was a true pleasure and honor to fly the SR-71 for seven years.