

## LSMAFC Meeting May 6



Bob Ross, a retired Master Sgt. spoke to us about the [SR-71](#) reconnaissance aircraft. One of his first assignments was to Beale AFB from 1965 to 1970. When he got to Beale, the SR-71 program didn't even have a building. His first job was to clean the lot before construction. As Airmen of Year, Bob flew the backseat in a simulator.

[Kelly Johnson](#) was an Aeronautical Engineer at Lockheed, and the SR-71 was his project to replace his [U-2](#). The first flight occurred in 1964, and all the airframes were retired in 1999. It was one of the first aircraft that had some features to reduce its radar cross section, but its best asset was its speed. At the time, most all airplanes were the color of aluminum. The dark black/blue paint earned it the name Blackbird. It was also called [Habu](#), from the name of a Japanese pit viper. Thirty-two were built 12 were lost in accidents, and one crew member was killed. Calculated optimum cruise was at Mach 3.2 or about 2500 mph. Above Mach 1.6, excess air is bled around the compressor, and it acts like a partial [ramjet](#). Kelly had designed a ramjet 10 years before the SR-71. In the early days, two Buick Wildcat V8s would turn the turbine to start the engines.



After being shot at, the pilots found that going faster than Mach 3.2 used less fuel per mile. Over 4000 missiles were fired at it during its 25-year service. No scores. Evasive maneuver was to accelerate until the missile couldn't keep up.

While cruising at 80,000, there is not enough air outside to create any noise. You can hear a pin drop. Needless to say, the air crew has a spectacular view.

The SR-71's purpose was to collect information. It had great optical cameras, infrared cameras, a telescope, and side-scanning sonar for terrain mapping. It could also intercept communications and radar signals. It was said it could photograph a license plate at 80,000 feet at over 2000 mph. It never flew over Russia and China because we never wanted the enemy to get even a few parts.

One crew came home white as a sheet. They were shot at with a missile the size of an Atlas ICBM. They went to 100,000 and [balls out](#) to get away. Whatever the speed was, it exceeded the data logger's capability. The spike position in front of the engine regulates the shockwave just inside the engine cowl. This shockwave in the duct sometimes would go outside the engine and shut it down. Losing one engine at cruise produced a very wild ride. In case they lost an engine, they took off with reduced fuel and hit a tanker soon after.



The plane used [JP-7](#) which had such a high flash point that if you threw a lighted match on a puddle of fuel, the match would go out. On the ground, it leaked badly, and 55-gallon barrels were used to collect the drip. A little leaked during flight and collected in the body which expanded and sealed at cruising speed. The celestial viewing port was just in front of the fueling door, and a few had scratches.



The nose attached just in front of the canopy. Due to a manufacturing defect, one of the noses fell off, and the crew had to eject. Another lost airplane was caused by a 2-inch piece of duct tape which slowed down the instrument responses. The plane broke into pieces in midair. The airplane had a [urine collection device](#), but nothing for No. 2.

The system operator had no controls in the back seat and had to eject first.

There are 5 at Davis-Monthan. Two may be unaccounted for.

The airplane was 85% [titanium](#), and in order to get it, the CIA created fake companies throughout the world to purchase the metal needed from the USSR, the only major supplier.

A B-52 commander once touched the spline. His fingerprints were imprinted after the bird flew. He has the piece on his desk.

Using their 61-star celestial navigation system, the crew could maintain their course within 1000 feet at Mach 3.

Bob told a side story about a MiG that was closing in on an RF-4 over North Viet Nam. The reconnaissance pilot fired off his flares and the MiG ingested one of them and crashed.

