Sample #1

SR-71 Blackbird: Faster Than a Speeding Bullet

In 1960, the United States was engaged in the Cold War with the former Soviet Union. Each country had a very different style of government and an extreme distrust of each other. Although no actual fighting ever took place, each country developed an arsenal of dangerous and highly destructive weapons. It was under these conditions that Lockheed Martin aircraft engineer Kelly Johnson and his team designed a new spy plane for the United States Air Force.

Credit: Wikimedia Commons/Tech. Sgt. Michael Haggerty

SR-71 Blackbird flew from New York to London in 1 hour, 55 minutes, 42 seconds.

The new plane was in a different category than previous aircraft. The crew working on the assignment, known as the Skunk Works team, was given a brief 20 months to develop a plane that could fly faster than Mach 3 and soar three miles higher than any plane had ever flown before.[1]

A plane traveling at such high speeds generates heat exceeding 1000° F on the aircraft's wings. The plane was covered in a skin of titanium, a metal that could withstand the high temperatures. Its cockpit had a tiny window made of thick oven-proof glass. The team needed to distribute the heat over the entire surface of the plane. They accomplished this by painting it black, and that is how the plane earned its nickname, "Blackbird."

Another challenge for designers was to make a stealth plane, in other words, a plane that could avoid radar detection. They succeeded by designing a revolutionary shape. The Blackbird looked like nothing ever flown before. It resembled a dagger, and its wings blended in with its sleek body. By adding a special radar-reflective paint, the plane appeared on radar screens bigger than a bird but smaller than a man.

Two crew members flew the 110-foot-long Blackbird while wearing bulky, pressurized suits like those worn by astronauts. The reconnaissance service officer (RSO) sat behind the pilot. His job was to operate the six cameras that were capable of photographing 100,000 square miles in one hour. Even at 60,000 feet, the cameras could zero in on a car and read its license plate. The camera's film was five inches wide and two miles long. When the plane landed, the film was quickly examined to retrieve information.

The Blackbird was shot at over 4,000 times but never shot back. It might seem unusual for a military aircraft, but the Blackbird was unarmed. Its defense was its incredible, supersonic speed. The Blackbird is the only aircraft in the history of the US Air Force that was never lost to enemy fire and never lost a crew member.

As the 1980s ended, the era of the Blackbird did too. The aircraft had served six different presidents, earning its pilots the title, "Guardians of Peace through Surveillance." The duties performed by the Blackbird fleet are now provided by reconnaissance satellites.

One Blackbird plane set four international speed records on her last trip across country to her final home at the Smithsonian Air and Space Museum. She made the trip, coast to coast, in 67 minutes. The SR-71 Blackbird still holds the record for the fastest (2,193 mph) and highest-flying (85,069 ft) manned aircraft.

1 Mach 3 is three times the speed of sound (3 × 767 mph).

RI. 7.1 1. According to the text, why were the United States and the Soviet Union in a Cold War?

A) Both countries had very different styles of government and didn't trust each other.
B) The countries had fought one another during World War II.
C) Each country wanted to expand its borders.
D) all of these

RI. 7.1 2. What did the Blackbird use as its defense against military attacks?

A) supersonic speed
B) titanium heat shield
C) high-powered machine guns
D) oven-proof glass

RI.7.4 3. Match each term with its clue.

_____ arsenal
_____ stealth
_____ revolutionary
_____ reconnaissance
_____ supersonic

A) new; innovative
B) a mission to gain information
C) faster than the speed of sound
D) a supply of weapons
E) secret; difficult to detect with radar

RI.7.1 4. According to the text, what was the job of the RSO during each flight?

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RI.7.1 5. The SR-71 Blackbird was an important part of our nation's defense system from the 1960s through the 1980s. What evidence supports this statement?

A) Two crew members flew the 110-foot-long Blackbird.
B) The aircraft served six different presidents, earning its pilots the title, "Guardians of Peace through Surveillance."
C) The Blackbird was not armed with weapons of any kind.
D) The Blackbird was in a different category than previous aircraft.

RI.7.1 6. Many features made the SR-71 Blackbird a special aircraft. Underline an example in the text.

RI.7.2 7. Which statement expresses a central idea of the article?

A) In 1960, the United States was engaged in the Cold War with the former Soviet Union.
B) The US Air Force now uses reconnaissance satellites to do what the Blackbird fleet once did.
C) The Blackbird played a significant role in supporting the US Air Force during the Cold War.
D) The Blackbird is the only aircraft in the history of the US Air Force to never lose a crew member.