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Spying on the Enemy with America's Spy Planes
by
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Although most people in the intelligence community know the recent U2 flights over Iraq were just for show, America for years has relied on spy planes like the U2, and the SR-71 "Blackbird," along with a network of satellites as strategic reconnaissance systems that serve senior military leaders and the White House with intelligence information.

Originally developed during the cold war of the 50's, the purpose of spy planes is to track enemy troop movements. Almost driven to retirement because of advancing technology, these highly classified planes got a second life during the first Iraq war. Replacing them were a network of spy satellites and Unmanned Aerial Vehicles (UAVs). They proved to be valuable new intelligence-gathering assets in places like Bosnia.

Imaging satellites can conduct global surveillance more efficiently and less expensively than human-crewed reconnaissance aircraft. One of the problems with using the satellite's orbit is on a standard path. People know when it's coming. Also, if you want to examine a location that is not under the satellite, you're out of luck. You can change the orbit to a certain degree, but this requires the use of the limited amount of onboard fuel, needed for station keeping.

For this reason, America uses other methods for gathering intelligence data. For the past 35 years spy planes have been a part of the intelligence-gathering network.

SR-71 Blackbird - America's Speed Burner
Although not as famous as the F-117 Stealth Fighter or the infamous B-2 Stealth Bomber, the SR-71 Blackbird has its place in history. Since the 1950's, SR-71 supporters in Congress argued the planes are uniquely able to gather imagery of hostile regions at a moment's notice. The SR-71 fly at 80,000 feet and at three times the speed of sound without putting aircrews at a high of a risk of being shot down.

Designed by a team led by Clarence "Kelly" Johnson, the basic design of the SR-71 aircraft originated in the late l950's. Under CIA Director Dick Bissell, the original aircraft designation was to be a bomber. When Bissell's career ended with the Bay of Pigs fiasco, the development of the SR-71s changed from the A-11 bomber design to a strategic reconnaissance aircraft. It also got a new name - SR-71. Production began in February 1963 with the first flight of an SR-71 for

the CIA was on Dec. 22, 1964.

Designed and built in secrecy at the Lockheed Corp.'s famed "Skunk Works" facility in Burbank, CA. The purpose was to develop a fast, high altitude-flying plane that would be able to take aerial photography. Constructed of titanium and titanium alloys to withstand intense heat, the SR-71 is 107.4 feet long with a wingspan of 56.6 feet. At l8.5 feet high it weighs about 140,000 pounds. Powered by two Pratt & Whitney J-58 axial-flow turbojets with afterburners, the plane can achieve 2,200 mph, more than three times the speed of sound. Although recent reports have stated, the plane has flown as fast as Mach 8, the official measured speed of the aircraft is Mach 3.2. It can climb to altitudes higher than 85,000 feet.

Although classified, it's reported that on April 30, 1962 pilot Lou Schalk officially gunned the Blackbird engines for the first time. Although the location of the secret base is still classified information, many believe to be the near Groom Lake, Nevada. The Groom Lake Base is also known as the famous UFO called Area 51.

Because at one time, even acknowledgment of the SR-71 was classified, from the historic first flight, information about the plane and much of the work that it performed during its career is scarce. It's known that Lockheed built only 31 Blackbirds.

The End of the SR-71

There were many official reasons for retiring the SR-71 Blackbird. The most common official reason given was the plane was getting too old to maintain, and it was too expensive.
Much was made of the fact the SR-71 was out of date. It couldn't download data to commanders in the field. Processing the results was done when the plane return to base.

Furthermore, the SR-71 also was not liked by many of the "overhead" or satellite people at NRO and elsewhere. They thought imaging satellites could now conduct global surveillance more efficiently and less expensively than manned reconnaissance aircraft.

Although it was never stated officially but widely believed, the Blackbird was retired because a superior replacement was entering service ("Aurora"?). But in the end the SR-71 was retired for a much more mundane reason: It wasn't a very popular plane with the people in power.
After the Air Force retired its SR-71 fleet in 1989, NASA continued to fly two planes for research. The remaining planes went to air museums.

The Return of SR-71

When Desert Shield began, Gen. Schwarzkopf was reported to have asked for the SR-71. Satellites were ineffective against the mobile Scuds. It is known that soon after Saddam moved into Kuwait, the Air Force approached Lockheed and asked how long it would take to restore SR-71 operations. Lockheed's response was the first one could be working in 14 days and the next one around thirty days after. It never happened.

After the war, Pentagon and Air Force officials opposed returning the planes to flying status because of their high maintenance cost. They argued America could spy on the world's hot spots well enough with U-2 spy planes, satellites, and UAV reconnaissance planes. Despite their opposition, Congress voted to spend $130 million to restore and fly three SR-71 aircraft for Air Force reconnaissance missions. In 1997 President Clinton officially retired the SR-71 again when the line-item vetoed the funds.

U2 Spy Plane

As a reconnaissance aircraft, the U-2 family of planes designed for long-range, high-altitude surveillance missions. As a single-engine plane, flown by a single pilot, the U2 can fly more than 3,000 miles and reach altitudes of about 90,000 feet. At least fifteen thousand feet higher than any airplane had ever before flown before. Their cargo was the highest-resolution camera in the world, designed by Edwin Land, maker of the Polaroid camera.

The original U-2 entered the Air Force in 1955. It was 49 feet long and had an 80-foot wingspan. Since then, developments of the plane have changed to the current version, the U-2Rs which is 63 feet long and have 103-foot wingspans.

The success of the U-2 might have made the difference between the United States' survival or not. At the time of the U-2 development stage, the Soviet Union was developing an ICBM (intercontinental ballistic missile). Tensions between the East and the West were very high.

Used for intelligence purposes, the U-2 began not as an Air Force plane, but for the CIA. Under the code-named Rainbow, the U-2 was probably the greatest aerospace bargain ever, with each plane costing only $1 million including development costs.

The U-2, renamed later to TR-1, began flights over the Soviet on July 4, 1956. For five years, the U-2's cameras captured photos of ICBM testing sites and air bases at over 70,000 feet above the most secretive society on earth.

Because the U2 flew so high in the sky, the Russians could see the U2. However, it was out of range of their missiles so there was nothing they could do. Because the Russians could not shoot it down, the U2 flew freely over all of Russia for four years taking pictures of all the Russians' high-security military equipment.

That ended on May 1, 1960, when Francis Gary Powers U2 plane was shot down. Well sort of. It was not shot down by the Russians. The Russians sent up a plane of their own to try and shoot it down. At the same time, the Russians were firing missiles. One of which hit the Russian aircraft! It exploded, and the shock waves broke off the U2's fragile wings. The Russians captured the pilot and aircraft. Afterward, America ended U2 missions over Russia.

Despite the end of the Cold War, the U-2s have kept busy. Based at Beale Air Force Base, CA, the U-2 provides continuous day or night, high-altitude, all-weather, stand-off surveillance of an

area in direct support of the U.S. and allied ground and air forces. It provides critical intelligence to decision makers through all phases of conflict, including peacetime indications and warnings, crises, low-intensity conflict and large-scale hostilities.

U.S. few more than 800 U-2 sorties over the Persian Gulf region in the period leading up to and during the Persian Gulf War in 1990 and 1991. The planes now are used for tasks ranging from watching Iraqi troop movements to monitoring the Bosnian peace accord. Also, NASA uses a fleet of specialized U-2s, called ER-2, for high altitude research. The U-2/TR-1 has been used in countless crises and peacetime operations, making it one of the oldest airplanes in use today.

Tactical Unmanned Aerial Vehicles (UAV)
Recently the military has begun using a new type of spy plane. Used for battlefield surveillance, according to military officials, these UAVs, are remotely controlled as they fly above the battlefield. All of the systems under development offer near real-time observation; that is, commanders can assess battle damage and other situations almost as it is happening rather than waiting for the film to return, be developed, analyzed and the information forwarded.

With names like the Predator and the DarkStar, the Air Force plans on adding other types of drones that are still under development. These aircraft which have operated over Bosnia, using video and infrared cameras to transmit tactical battlefield images to a U.S.-operated ground station.

America's Spy Satellite System
On Aug. 19, 1960, a gold-plated bucket fell out of the skies off the coast of Florida, was snatched in mid-air by a specially equipped U.S. Air Force plane and hustled to Washington for analysis. The bucket contained a canister of film shot high over the Soviet Union by the Corona spy satellite, and it would revolutionize the conduct of intelligence-gathering and help stabilize the Cold War at a time when nuclear Armageddon was on everyone's mind.

Even though former CIA director Richard Helms called it the "second coming." by their very nature, spy satellite successes (and failures) tended to be very secretive. Project Corona, as it was called, was the world's first orbiting spy satellite system. Between 1960 and 1972 America launched into orbit over 100 successful spy satellites. Project Corona transformed ignorance into an unprecedented degree of knowledge.

The canister that returned to earth 35 years ago contained some 3,000 feet of film. The film covered more than three million square kilometers of Soviet territory. Although grainy, relatively low resolution and about 50 percent of the terrain obscured by cloud cover, the film was a breakthrough with profound consequences. The Corona satellite had in its one-day polar orbit provided more coverage of the Soviet Union that had the famous U-2 spy plane in its four previous years of risky operation.

The pictures from Corona helped to settle, in a way that no other source could have done, what

was one of the fiercest debates in U.S. strategic policy. Unsure of Soviet developments and technological prowess but sure of Soviet expansionist tendencies at the time, alarmist politicians and hard-line members of the intelligence community feared the Communists might lead in intercontinental-ballistic-missile strength.

By tracking railway lines, Corona provided clues to the location of Soviet missile sites. From the skies, it photographed suspect areas. Allowing the CIA to feel secure in its grasp of the dimensions and dangers of the Soviet strategic rocket forces. To the agency's astonishment and relief, the Soviets proved to have vastly less missile power than expected.

The culminating achievement of Corona came when the Soviet delegation to the 1968 SALT I (Strategic Arms Limitation) talks agreed to use missile counts drawn from U.S. spy-satellite photography as the basis for negotiations. The implication was that the spy satellites had drawn up a better inventory than the Soviet authorities themselves possessed.

The Future

In addition to the standard methods, the military is using an assortment of new technology to monitor the warring sides in Bosnia - from small, pilotless spy planes, to systems that see through smoke, fog, and darkness to detect troop movements.

Reports of a successor to the SR-71 repeatedly surfaced during the debate over the termination of the SR-71. The "Aurora," a Mach 6 200,000-ft.-altitude stealthy reconnaissance aircraft, was being developed to replace the SR-71. One thing is for sure, if there is a troubled area in the world, American had satellites and planes flying over, sending back images to the people.

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