



POLAR BEARS & DRAGONS: GARY POWERS AND THE U-2 SPY PLANE

AUGUST IN AVIATION HISTORY

Over the course of the Cold War, world powers found themselves constantly at odds with each other. Nuclear testing was rampant. Atomic research was unchecked. Safety procedures were limited. The name of the game was espionage, spying, and various other forms of information gathering. After all, this was the definition of the Cold War: a war in which we spent countless time, money, manpower, and resources to one up the other. While certainly not the only definition, this defines one of several key components of the Cold War. The Space Race added another dimension to this, but even though satellites in theory could be launched, the most reliable form of intel gathering was using aircraft. The Central Intelligence Agency (CIA), United States Air Force (USAF), and the Defense Advanced Research Projects Agency (DARPA), flew countless missions over the Soviet Bloc. Unfortunately, a few of them didn't go quite as planned, but perhaps the most famous of these failed missions was that of CPT Francis Gary Powers' Soviet flyover.

On 1 MAY 1960, Powers was flying a U-2C Spy Plane, aptly named the *Dragon Lady* with tail number 56-6693. The U-2 is a large aircraft with an incredible and distinguished wing profile. Capable of flying at extreme altitudes of over 75,000 feet and over 6,000 miles in distance, many aspects of the aircraft remain classified. The aircraft was designed based on a glider. In many cases, the aircraft required precision handling, as the wings were prone to snapping off. In addition, at cruising altitude the aircraft's stall speed and maximum speed were anywhere from 1 to 6 miles per hour apart. This meant that the pilot had very little room for error when he was at altitude.¹ On landing, the resistance generated by the wings would sometimes cause the plane to hover at the end of the runway. A single wheel was on the underbelly of the plane, meaning the plane had to teeter and balance itself on its belly on landing. On takeoff, the wheels on

the wings broke away, as any modifications to the wings could cause them to snap off.

The 1 MAY flight was being conducted by the CIA. Powers' route was to take him through the central region of the Soviet Union, overflying numerous Inter Continental Ballistic Missile (ICBM) sites, Surface-to-air Missile (SAM) sites, and enrichment sites for atomic weapons. These were routine flyovers that were designed to observe the movement of war materiel and examine Soviet capabilities. The intended route entered via Afghanistan, over Uzbekistan, Kazakhstan, and finally entering Russia before cutting west over the central Ural Mountain range then north towards Murmansk and a retreat west into NATO territory.²

Soviet pilots were ordered into the skies in MiG-19 aircraft and given the command to ram the aircraft if necessary. However, due to the operating altitude of the aircraft, this proved to be impossible. All things seemed to be going according to plan aboard Powers' craft, until he entered the region covered by new SA-2 SAM sites. While the U-2 was designed to fly over the known Soviet SAM sites, intelligence on the new SA-2's was limited. Unbeknownst to Powers and the Americans, the SA-2 could meet the U-2 at altitude. The new sites to the south and east of the Ural Mountains were fully operational by early spring of 1960. One of the three SAM sites successfully launched a volley that connected with Powers' plane, forcing him to eject. While the SA-2 was powerful and much more advanced, it was not without fault. At least one MiG-19 was shot down in the process, killing the pilot.

Powers landed in Soviet territory and was immediately captured. Despite this, the Soviets continued to believe the aircraft was still airborne for over a half hour after the plane had hit the ground. Powers spent 19 months in a Soviet prison before he was released back to the Americans in exchange for a Soviet spy. Powers was subsequently questioned and prosecuted in the United

States due to the sensitive nature of his mission and the loss of the aircraft. He was eventually cleared of any wrongdoing and the case was closed much later in the 1960s.³

While this was not the last incident of a U-2 being shot down, it did underscore the need for more advanced means of intelligence gathering. More elaborate means of strategic airspace penetration was necessary. Powers' incident was one of the keystone arguments for the creation of the A-12 *Oxcart* and the SR-71 *Blackbird*. Both aircraft would enter service by 1962 and 1964 respectively. In addition to flying faster than intercepting missiles, the USAF and the CIA were examining the feasibility of stealth technology to be incorporated in subsequent aircraft and revisions of older aircraft. Many of the U-2's today that remain in service, including the ER-2 variant, use some form of special paint to reduce their radar cross-section, regardless of their research use.

The U-2 *Dragon Lady* remains in service today with the USAF and in limited service with the CIA for ad hoc reconnaissance missions. In conjunction with P-8 *Poseidon* aircraft and satellites, these make up the core of airborne intelligence gathering methods. These missions are slowly being replaced by unmanned aerial vehicles (UAVs) such as the RQ-170, and Lockheed's proposed TR-X replacement. Such transitions will make the risk to life, such as what Powers faced in 1960, a thing of the past.

1. Powers, Francis. *Operation Overflight: A Memoir of the U-2 Incident*. Potomac Books, Inc, Lincoln, Nebraska. 1970. p18.
2. Harford, James. Korolev: How One Man Masterminded the Soviet Drive to Beat America to the Moon. John Wiley & Sons, United Kingdom. 1997.
3. Orlov, Alexander. "The U-2 Program: A Russian Officer Remembers." 2006.

1944	During <i>APHRODITE</i> , the USAAF attempts to remotely control B-17 bombers into V-1 rocket bases. The operation fails to meet the objective.	04
1945	As part of a pressure campaign against Japan, 800 B-29's bomb the industrial town of Toyama, Japan almost out of existence.	01
1945	A small group of B-29's participate in the first atomic bombing of Japan over and near Hiroshima. A similar group will participate over Nagasaki on 9 AUG.	06
1946	The B-36 <i>Peacemaker</i> , the world's first intercontinental bomber and largest combat aircraft ever built, makes its first flight.	08
1995	NATO's first bombing campaign begins. <i>DELIBERATE FORCE</i> will launch numerous airstrikes against Bosnian-Serb positions.	30

