Lockheed SR-71A Blackbird
by Andrew McLaughlin

A-12 Oxcart

Oxcart was the designation given to the CIA A-12 program. Originally intended to succeed the U-2 in conducting overflights of the Soviet Union, the A-12's planned mission was already redundant before it first flew. Following the downing of the U-2 flown by Gary Powers over Russia in 1960, President Eisenhower reluctantly agreed to suspend Soviet airspace violations indefinitely, and the program was immediately under threat. However, it was decided to proceed with the flight trials whilst a new mission was sought for Oxcart, as most of the development money had already been spent anyway.

The Cuban missile crisis of 1962, and the Kennedy administration's decisive blockade and diplomatic action to remove Soviet missile and bomber deployments in Cuba proved to be the aircraft's savior. Ironically though, it is believed the A-12 was never used operationally over Cuba during the crisis, as it had been resolved 18 months before the aircraft was actually declared operational.

There are reports from several sources of some overflights of Cuba during November 1964, however, the CIA has never confirmed these flights occurred, and any over-flights that did occur are believed to have possibly been training or proving flights away from sensitive areas, under the designation "Operation Skylark". Also, the A-12s ECM suite had not been installed at this time, so the aircraft would have been vulnerable. Florida based U-2s were able to glean most of the required intelligence from high altitude stand-off flights outside Cuban airspace anyway. Besides, with the spread of communism in South-east Asia and the subsequent massive Chinese and Soviet support for North Vietnam, a new mission was being developed for the Oxcart.

A line up of eight A-12s and two YF-12s at Groom, probably taken in early 1964, north of Hangars 4-7, looking northwest. The dual cockpit 'Titanium Goose' trainer which retained the less powerful J75 engines is second from right. These aircraft were later painted all-black when used operationally on the 'Blackshield' deployment in 1967/68.

Oxcart's first (and only) acknowledged operational use was that deployed to Kadena AFB in Okinawa, Japan in May 1967. The deployment was named "Blackshield", and it was established with 260 personnel and three aircraft to provide aerial intelligence to substantiate (or refute) intelligence that reportedly had North Vietnam deploying Chinese made surface-to-surface missiles (SSMs) that could threaten US ships offshore and fixed bases in the South. The first Blackshield mission over North Vietnam was flown by A-12 #60-6937 on 31 May 1967. The mission lasted 3 hours 39 minutes, and Electronic Intelligence (ELINT) recordings taken during this first mission showed that the A-12 was neither tracked nor even seen by North Vietnamese or Chinese radar on either reconnaissance run.

All A-12 pilots were recruited from USAF fast jet ranks, and following extensive psychological and security screening, they were required to resign their commissions and become "employees" of Lockheed in order to fly for the CIA. According to Ben Rich, the pilots were paid by Lockheed, who in turn was reimbursed by the CIA via personal cheques sent by mail directly to Kelly Johnson's private address!

The A-12 was never given an official name, and the first crews felt the project name of 'Oxcart' wasn't truly representative of the aircraft or its capabilities. Consequently, the crews came up with the name 'Cygnus' for the aircraft, and the Cygnus constellation symbol also became the subject of a crew patch worn by the crews.

A typical Oxcart mission would begin with a receipt of alert notification from the CIA. A primary, and a backup aircraft were selected, and both jets were given a thorough inspection and servicing. A detailed route and target briefing was given to the pilots the evening before the flight, and a final briefing including weather, relevant intelligence and last minute changes to the flight plan was conducted on the morning of the flight. Two hours prior to take-off, the primary pilot was given a medical inspection and suited up, and the backup pilot followed one hour behind. The backup aircraft would be allocated the mission if the primary jet broke, and the backup pilot would fly the mission if the primary pilot failed his medical.

The typical route from Kadena usually included an air-to-air refueling (AAR) shortly after takeoff before the aircraft climbed to a cruising altitude of 75,000 feet at Mach 3.0, and headed south-west off the east coast of Taiwan. As the aircraft approached the northern Philippine island of Luzon, it began a gentle right turn to the west, and then another right turn to the North-west as it approached the Gulf of Tonkin.

The A-12 would typically go "feet dry" in the Haiphong (the major port 70 km south-east of Hanoi) area and arc to the left across the main part of North Vietnam before crossing Laotian airspace into Thailand. An AAR would take place over western Thailand, before the A-12 accelerated and climbed, and again crossed Laos into North Vietnam, this time going "feet wet" just north of the De-Militarized Zone (DMZ) about halfway down the Vietnamese coast. The total time spent over hostile ground (including Laos) would be 20-25 minutes, during which time almost 45,000 square miles of territory would be photographed. The route home would mirror that of the inbound leg.

The first indication of the North's ability to track the A-12 with radar came on 28 October 1967, when a SAM was fired at an Oxcart but failed to lock on. Interpretation of the ELINT gathered on that and subsequent flights showed that the initial acquisition radar could track the A-12 (albeit with difficulty), but the Fan Song guidance radar could not maintain a lock with the speeding aircraft. In fact, it wasn't until the Photo Interpreters (PIs) back at Okinawa showed the pilot the launch and actual contrail of the missile on the film "take" from the mission, that he realized he had been fired upon at all! At this time, it was believed Chinese reconnaissance "trawlers" positioned off the coast of Okinawa in international waters were passing intelligence to North Vietnam about A-12 launches, so the defenses could be ready at the approximate time the aircraft was due to be overhead. On 30 October 1967, at least six SA-2 SAMs were fired at an A-12 during its second pass on the outward leg, but all failed to guide although one did explode close enough to the jet to leave a small fragment of missile shrapnel embedded in the lower wing area which was discovered

upon recovery at Kadena.

An A-12 at Groom Lake in circa 1966/67. This particular aircraft was lost in a crash near Caliente about 70 miles east of Groom Lake in 1967, and is the subject of Tom Mahood's excellent 'Hunt for 928'.

Apart from the overflights of North Vietnam (which quickly succeeded in disproving the existence of the SSMs), it is believed a number of penetrations of Chinese airspace were also conducted, primarily to probe a powerful new radar array on Hainan Island in the Gulf of Tonkin near North Vietnam, which was believed to have been supplying intelligence on US aircraft and shipping movements to the North. There were also at least three overflights of North Korea following the Pueblo incident in January 1968, when a US spy "trawler" was boarded and captured by North Korean forces in international waters. Despite vigorous denials by North Korea, an A-12 is believed to have pinpointed the location of the Pueblo in a North Korean port, and the incident was quickly settled after the irrefutable photographic evidence was tabled.

There are few details available on the A-12s sensor package, however it was believed to have included a mix of 24in (60.9cm), 36in (94.4cm), 66inch (167.6cm) and 110in (279.4cm) cameras, the biggest of which was capable of providing less than 1-metre resolution at up to 150 miles (241km) oblique range! Early developments of Side Looking Radar (SLR) are also believed to have been tried aboard A-12s as well.

The Blackshield deployment was to be short-lived. Less than one year after arriving at Kadena and after only 29 missions was flown, the final A-12 operational mission was flown on 8 May 1968 over North Korea. In fact, the retirement date for the A-12 had been decided back in December 1966 in favor of the Air Force's SR-71A, six months before the A-12's first operational flight! The decision was reviewed in late 1967 but was re-affirmed May 1968 and an immediate termination was ordered.

The only overseas loss of an A-12 occurred in June 1968, ironically nearly four weeks after the last operational mission, and just three days before the aircraft was due to return to the USA. Aircraft #60-6932 was lost over the Pacific Ocean just east of the Philippines whilst on a post engine maintenance check flight out of Kadena, and no wreckage nor trace of the pilot has ever been found.

The decision to retire the A-12 was primarily politically motivated, as it was deemed the Air Force should be responsible for such tasks and the CIA should remain merely a client of the product produced by these missions. Although the only photographs ever published of the A-12 show USAF markings painted on the aircraft, this was only a ruse in case an aircraft went down over sensitive territory or was forced to make an emergency landing at an alternate airfield, the single seat A-12s were not wanted by the Air Force as they were considered to be non-compatible with their SR-71A cousins then entering service.

Besides having different crew requirements, the optical sensor bay in the A-12 was larger than that in the SR-71, and different primary optical sensors (with similar capabilities) were used. The life support systems were also slightly different, and although the rear fuselage and the wings of both aircraft had the same dimensions, they were internally rather different. Also, the ECM (or DEF) suite in the A-12 was largely automatic, whereas the RSO controlled this system in the two-seat USAF SR-71. In the end, the only real major common parts used of both aircraft were the two J58 engines and all engines from the surviving A-12s were removed and given to the Air Force as spares for their SR-71 fleet.

The Oxcart program lasted barely 10 years from project inception in late 1957 to termination in mid-1968. Lockheed built a total of 15 A-12s, including a single unpainted dual cockpit trainer that retained its less powerful J75 engines and five of these aircraft were lost in accidents resulting in the deaths of two pilots. Upon their return to the USA in June 1968, the two remaining Blackshield A-12s joined their sister aircraft at the Skunk Works at Palmdale for long term storage. After entering storage, no A-12 ever flew again, and a few can now be seen at various museums across the USA.