



*Entrance to suite  
4C1000 in the  
Pentagon.*

# PENTAGON SUITE 4C1000: SAYING FAREWELL TO A PIECE OF NRO HISTORY

FROM THE 1950'S SPACE RACE TO MODERN RECONNAISSANCE

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LOCATED IN A DARK AND ISOLATED FOURTH FLOOR HALLWAY IN CORRIDOR C, Pentagon Suite 4C1000 shrouded some of the earliest activities of the U.S. National Reconnaissance Program (NRP) and played a vital role in establishing the National Reconnaissance Office (NRO). As NRO prepares to vacate this suite, which is being closed as part of the Pentagon renovation, we have an opportunity to reflect on the significance of its place in NRO history. The current occupant, the NRO National Systems Operations Directorate (NSOD), is moving to a new location on the Mezzanine level of the Pentagon.

Occupied by elements that later formed the NRO, Suite 4C1000 is perhaps the longest continuously operated NRO office. It was NRO's first headquarters, managing and centralizing

the otherwise diffuse NRP, which consisted of research and development centers, launch facilities, and tracking stations around the globe. Those who worked in the suite served as NRO's representatives to the Department of Defense (DoD) and the military services, and supported other organizations involved in space. The 4C1000 staff witnessed the emergence of the space race; helped to shape world events and win the Cold War; and created a legacy of excellence exhibited throughout NRO's rich history.

## **U.S.-Soviet Space Race**

On October 4, 1957, the Soviet Union stunned the world by launching the 185-pound Sputnik I, the world's first artificial Earth-orbiting satellite. A month later, with the West reeling from shock, the Soviets orbited the larger Sputnik II, which carried the first living creature — a dog named Laika — into

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*Left: Aircraft snagging the CORONA film bucket out of mid air.*

*Right: SR-71 in flight.*

Earth orbit. American, British, and other Western leaders immediately recognized the grave national security implications of Soviet technological superiority in space: if the Soviets had rockets capable of placing objects into space, they could build nuclear-tipped missiles able to hit the United States or Great Britain, conceivably preempting the West's ability to retaliate. Americans, who had long feared an alleged Soviet superiority in long-range bombers — the so-called “bomber gap” — suddenly faced the terrifying possibility of a missile gap as well. To confront this new threat, American leaders needed information from “denied areas” behind the Iron Curtain, while the public needed hope that the Soviet lead in space was only temporary. Little did most people know that a tiny Pentagon office was already

working hard to ensure American space superiority and to give U.S. leaders the intelligence they needed to protect America — tools that eventually showed that the Soviet threat was not as great as first thought.

When the Soviets launched Sputnik I, the Air Force Office of Guided Missiles (AFCGM) occupied Pentagon Suite 4C1000. Led by Brigadier General Robert E. Greer, AFCGM was primarily responsible for developing air-launched guided missiles. However, because the AFCGM served as the secretariat for the Air Force Ballistic Missile Division, in Los Angeles, California, Greer and the 4C1000 staff also had knowledge of missile and space developments. At this time, Lieutenant General Roscoe C. Wilson, Air Force Deputy Chief of Staff for Development, was responsible for space research-and-development. As

ballistic missiles became operational, they transitioned from Wilson to Greer's office for deployment.

Atlas, built by Vultee (later Convair, and then General Dynamics), was America's first intercontinental ballistic missile. In 1958, when America's Atlas rocket became operational, Greer selected Lt. Col. Edwin J. Istvan, USAF, to be the AFCGM Atlas program manager.

#### **U.S. Launches First Communications Satellite — Project SCORE**

With Greer and Istvan playing major roles, an Atlas-B missile launched the first communications satellite, under Project SCORE (Signal Communications by Orbiting Relay Equipment), from Cape Canaveral, Florida, on December 18, 1958. Greer and Istvan, like others involved in the

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space industry after the launch of Sputnik, found themselves pressured to assert America's authority in space. The nation started new programs, accelerated existing programs, and looked for ways to use readily available technology in the space race.

Project SCORE's primary mission was to place the body of a missile into low Earth orbit, which Greer and Istvan calculated they could do with the newly developed Atlas. This accomplishment alone would counter some of the competitive publicity created by the Sputnik launches the year before. However, placing a functioning payload in orbit would be an even greater political, if not scientific, victory in the accelerating superpower space race. Greer and Istvan worked with the Advanced Research Project Agency and the U.S. Army Signal Research and Development Laboratory at Fort Monmouth, New Jersey, to install a communications satellite, which the Army lab built in six months, atop an Atlas-B missile provided by the Air Force Ballistic Missile Division.

Once successfully launched, the SCORE satellite broadcast open frequency radio signals audible worldwide, including Christmas carols and a holiday greeting from President Dwight D. Eisenhower, which Greer and Istvan persuaded him to make at the last minute. Listeners around the world heard the message and the carols during the satellite's short

lifetime. Due to extreme secrecy at the time, the participation of Greer, Istvan, and those in Suite 4C1000 remained hidden — leading some to assert that SCORE was America's first operational "black" payload. Yet, despite the secrecy, Project SCORE, with assistance from those in Suite 4C1000, demonstrated the practical operation of an intercontinental satellite radio-relay system, a technology with clear civilian and military applications.

### Early Space-Based Reconnaissance

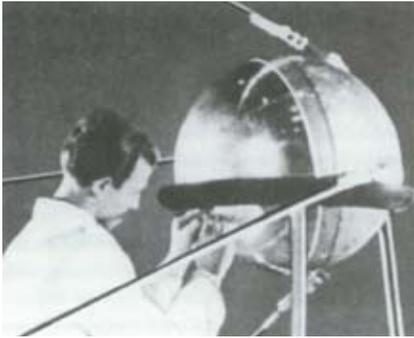
Suite 4C1000 became the home of the Air Force Office of Missile and Space (SAFMS), headed by Brigadier General Richard D. Curtin, USAF, and through various connections, became involved in early U.S. space reconnaissance development. Before joining SAFMS, General Curtin served at the Air Force Ballistic Missile Division in Los Angeles and in the office of the Deputy Chief of Staff for Development in Washington, D.C. As SAFMS head, Curtin primarily provided direct staff support to Under Secretary of the Air Force, and future NRO Director, Dr. Joseph V. Charyk. Curtin also functioned as the Washington staff for General Greer, who moved to El Segundo, California, in 1960 to manage the SAMOS Project Office, America's first attempt to build a near real-time

reconnaissance satellite. In this capacity, the 4C1000 staff not only served as the liaison with other military organizations involved in the space program, but also began coordinating America's early space-based reconnaissance efforts.

The shutdown of Francis Gary Powers' U-2 over the Soviet Union on May 1, 1960, forced President Eisenhower to terminate all aerial reconnaissance overflights of Soviet territory, a decision that President John F. Kennedy and subsequent presidents followed. The lack of U-2 coverage sharply reduced America's ability to gather information on "denied areas" behind the Iron Curtain. With Cold War tensions heightening, and the odds of a superpower nuclear confrontation escalating, America's need to peer behind the Iron Curtain grew. The capture, trial, and incarceration of Powers fueled America's urgency to quicken the pace of satellite development already underway as a safer alternative to aerial reconnaissance. Increases in funding for the National Reconnaissance Program resulted.

### NRO's Birth

On September 6, 1961, Acting Director of Central Intelligence General Charles P. Cabell and Deputy Secretary of Defense Roswell L. Gilpatric established the National Reconnaissance Office. This action consolidated the nation's aerial



*Sputnik.*

and space-based reconnaissance assets into one hybrid national office, containing military and intelligence elements: the Central Intelligence Agency (CIA), the United States Air Force, the National Security Agency (NSA), and the United States Navy and Army. Charyk and CIA Deputy Director/Plans, Dr. Richard M. Bissell, Jr., co-directed the new organization. Prior to their joint NRO directorship, both men had been actively involved in developing the organizational arrangements that led to the NRO's formation. Bissell led the CIA's effort that produced the U-2, America's first high altitude long-range reconnaissance plane, and CORONA, America's first successful photoreconnaissance satellite. McNamara knew Charyk from their days at Ford Motor Company, and asked him to stay on in the Kennedy Administration as the Air Force space reconnaissance head. When NRO stood up, the 4C1000 staff became the Office of Space Systems (SAFSS), continuing to support Charyk as Under Secretary of the Air Force and General Greer's SAMOS Program Office in El Segundo, California (Greer's title of

Director of the SAMOS Project became the less revealing Director of Air Force Office of Special Projects). In 1961, Charyk ordered the Suite 4C1000 corridor sealed, which created a single set of suites that later became NRO headquarters. This remained NRO headquarters until 1992, when the entire organization collocated to the Westfields facility in Chantilly, Virginia.

Dr. Bissell retired from government service in April 1962. The following month, Director of Central Intelligence (DCI) John A. McCone and Deputy Secretary of Defense Roswell L. Gilpatric signed an agreement establishing a single NRO Director (DNRO). Under this agreement, the DCI and Secretary of Defense jointly selected the DNRO, who managed the entire National Reconnaissance Program, including the allocation of funds. McNamara and McCone selected Dr. Charyk for the position.

In June 1962, Charyk restructured the NRO, creating separate programs for the Air Force (Program A), CIA (Program B), and Navy (Program C), and a separate program for the "air breathers," the U-2, A-12, and SR-71 (Program D). Colonel Istvan inherited the Electronic Systems position on the NRO 4C1000 staff, handling all SIGINT matters until he retired in 1963. The stage was now set for the NRO staff in 4C1000 to begin developing reconnaissance programs that proved indispensable to the security and defensive preparedness of the United States for generations to come. The systems that people in 4C1000 helped

create and manage dispelled the myths of the missile and bomber gaps, showing instead that the United States vastly outnumbered the Soviets in missiles and bombers. The NRO systems gave American leaders accurate information on which to base their decisions, monitored the nation's enemies, revealed threats, and promoted international stability. When NRO vacates this suite, it will leave behind a strong legacy and a proud tradition, but will continue to perform its space reconnaissance mission with excellence.

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*This article is based on the following unclassified sources: William E. Burrows, *This New Ocean: The Story of the First Space Age*, New York, NY: Random House, 1998; Deane Davis, "The Talking Satellite: A Reminiscence of Project Score," *Journal of the British Interplanetary Society* 52 (July/August 1999), p. 239-258; Gerald K. Haines, *The National Reconnaissance Office: Its Origins, Creation, and Early Years*, Chantilly, VA: NRO History Office, 1997; Donald H. Martin, *Communication Satellites 1958-1995*, Washington, DC: The Aerospace Corporation, 1996; Robert Perry, *Management of the National Reconnaissance Program, 1960-1965*, Chantilly, VA; NRO History Office, 1969.*

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