

PROVIDING INVALUABLE INTELLIGENCE:

A BRIEF HISTORY

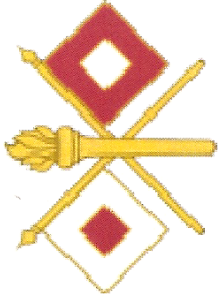
OF THE

NATIONAL AIR AND SPACE INTELLIGENCE CENTER



BACKGROUND

The National Air and Space Intelligence Center (NASIC), headquartered at Wright-Patterson Air Force Base (WPAFB), is the Air Force's single, integrated intelligence production center and the primary Department of Defense (DoD) producer of foreign air and space intelligence. NASIC assesses current and projected foreign forces, threat, and weapon system capabilities and employment, and evaluates evolving technologies of potential adversaries. The Center traces its heritage from the Foreign Data Section of the Army Signal Corps' Airplane Engineering Department established at McCook Field in 1917. The Section was charged with evaluating foreign scientific and technical programs related to aircraft.



NASIC'S EARLY PREDECESSORS

During the interwar years, NASIC's predecessors gained responsibility for disseminating aviation-related technical information to business and military organizations, operating the Army's Aeronautical Museum, and producing motion picture studies of engineering experiments. With the advent of World War II, the impact of the enemy's radical and advanced weapons design concepts forced the Allies to a new appreciation of technical intelligence. As the war neared its end, the scientific and technical intelligence mission shifted emphasis from air operations support to technical exploitation of enemy technology. Front line troops captured enemy equipment and sent it back to Wright Field for assessment, with the first German and Japanese aircraft arriving in 1943. Officers and civilian scientists, mostly from Wright Field, followed the armies to exploit captured enemy materiel and documents.

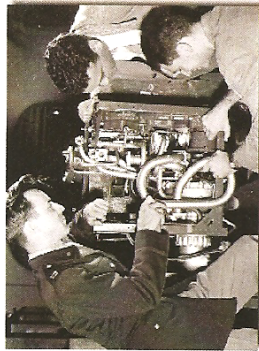
Wright Field's Colonel Harold E. Watson and a group of handpicked pilots gathered German aircraft from the battlefield and sent or flew them back to Wright Field for study. Operation Paperclip, a follow-on project,

brought over 200 German scientists and technicians to Wright Field to work with their American counterparts. Initially assigned to the intelligence branch, most of the scientists eventually worked in the Wright Field laboratories.

Captured documents also flowed into Wright Field. By the end of 1947, Wright Field personnel had processed over 1,500 tons of documents, adding 100,000 new technical terms to the English language. The technical knowledge gained revolutionized American industry. Besides the aviation-related advances, new designs for vacuum tubes, the development of magnetic tapes, night vision devices, improvements in liquid and solid fuels, and advances in textiles, drugs, and food preservation were made available to American manufacturers.

ESTABLISHMENT OF T-2 INTELLIGENCE

The establishment of T-2 Intelligence at Wright Field in 1945 began the move toward a balanced integration of engineering and intelligence. T-2 was responsible for the creation of air intelligence; identifying foreign aircraft and related equipment needed for study; receiving, translating, and distributing foreign language documents; and distributing air intelligence products. By decade's end, T-2's efforts were turning increasingly toward the emerging Russian technological threat. T-2 also opened an office in 1947 for the study of unidentified flying objects.



In the late 1940s, NASIC's predecessors' had begun to develop a scientific and technical database through the exploitation of published foreign literature. By the mid-1950s, they had created an impressive file of retrievable information. The addition of raw intelligence gained from the Korean conflict, however, had established a need for more modern techniques to reduce this vast amount of documentation to useable information. As a result, intelligence analysts began pioneering the use of

computers. Radar intelligence, electronic intelligence, and machine translation capabilities were also added to the intelligence arsenal.

National Air and Space Intelligence Center lineage		Date
NASIC Predecessor Organization	Command	
Foreign Data Section	Airplane Engineering Department	1917
Technical Publications and Library Department	Airplane Engineering Department	1918
Technical Data Section	Engineering Division, Army Air Services	1920(?)
Technical Data Branch	Materiel Division	15-Oct-26
Army Aeronautical Museum	Materiel Division	22-Aug-35
Technical Data Branch	Materiel Division	Feb-40
Technical Data Section	Army Air Forces Materiel Center	Jul-41
Technical Data Laboratory	Army Air Forces Materiel Center	3-Dec-42
T-2 Intelligence	AAF Air Technical Service Command	1-Jul-45
Intelligence Department	Air Materiel Command	10-Oct-47
Air Technical Intelligence Center (1125th Field Activities Group)	Air Materiel Command	21-May-51
Aerospace Technical Intelligence Center	Directorate of Intelligence, HQ USAF	
Foreign Technology Division	Directorate of Intelligence, HQ USAF	21-Sep-59
Air Force Foreign Technology Center	Air Force Systems Command	1-Jul-61
Foreign Aerospace Science and Technology Center	Air Force Intelligence Command	1-Oct-91
National Air Intelligence Center	Air Force Intelligence Command	1-Jan-92
National Air & Space Intelligence Center	Air Intelligence Agency	1-Oct-93
	Air Combat Command	20-Feb-03

AIR TECHNICAL INTELLIGENCE CENTER (ATIC)

On 21 May 1951, the Air Force established the Air Technical Intelligence Center (ATIC) at Wright-Patterson Air Force Base as a field activity of the Assistant Chief of Staff for Intelligence. The events of the 1950s provided the backdrop against which ATIC performed a vital scientific and technical intelligence mission for the United States. The Korean War gave ATIC its first major opportunity to directly influence military strategy. ATIC provided the Far East Air Force (FEAF) with the performance characteristics of Russian aircraft in theater and charts depicting the combat radius of the MiG-15. This support allowed FEAF to more effectively develop engagement tactics for its F-86 fighters. By the end of the Korean War, ATIC manpower had increased to 634 personnel, a 50 percent increase since its activation in 1951. Throughout the 1950s, ATIC analysts pioneered the use of computers for aircraft analysis. As the number of personnel assigned to ATIC increased, there was a growing need to construct a building to house the unit. With center personnel spread out in six buildings around the base, Brigadier General Harold Watson lobbied the Air Staff for the construction of a new headquarters building.

On 18 July 1956, General Watson and ATIC held a ground breaking ceremony for a 100,000 square-foot complex, Building 828 (see Figure 1). In addition to office spaces, the building was specifically designed to house Readix, the center's first computer. This first segment of today's state-of-the-art intelligence complex dates to 1958. The building was rectangular with a two-story front section with precast concrete panels between concrete piers on the first floor and aluminum walls on the second. A one-story glass and metal connector was located at the rear of the building. A one-story wing with precast concrete panels between concrete piers was joined to the connector.



Figure 1. Building 828 circa 1959.

Immediately following the Sputnik launches in October 1957, the Air Staff increased center manning from 723 people (FY 1957 end strength) to 1,062 people. In 1959, the Air Force renamed ATIC, recognizing the importance of the space-related mission. Instead of "Air" Technical Intelligence Center, on 21 September 1959 the unit became the "Aerospace" Technical Intelligence Center. In 1959, ATIC began studying Chinese trends in offensive missiles and space vehicles. During this era, ATIC made significant contributions to the development of automated and technical systems. In partnership with American industry, ATIC spurred the development of automated performance analysis techniques and pioneered the machine translation of foreign language documents within the Department of Defense. ATIC engineers and scientists also broke new pathways in the development of sensor, photographic, and reconnaissance systems.



Figure 2. Building 828 circa 1965.

FOREIGN TECHNOLOGY DIVISION (FTD)

Key events in 1961 marked the end of the ATIC era. The first, the disastrous "Bay of Pigs" invasion of Cuba in April, prompted President John F. Kennedy to establish the Defense Intelligence Agency (DIA). The 1 August 1961 Department of Defense Directive establishing the DIA specified that the new agency would "more clearly align DoD intelligence channels with the military chain of command." At the same time, the Air Force realigned its scientific and technical intelligence function. Instead of being directly assigned to the Air Staff, the aerospace technical intelligence mission became part of the newly established Air Force Systems Command (AFSC; previously the Air Research and Development Command). With the establishment of the Foreign Technology Division (FTD) under the new Air Force Systems Command in 1961, the Air Force gained a formal organization that would handle its scientific and technical intelligence mission for the next thirty years. Furthermore, FTD's investigation of new foreign technology would provide a yardstick against which American research and

development could be measured. By 1961, FTD had automated the photo analysis process. It added the capability to provide invaluable information on foreign aerodynamic, ballistic missile, and space vehicle systems in 1963. That same year, the database was automated as a computerized library of scientific and technical information from many sources, available for instant recall. In the 1970s FTD acquired capabilities in human intelligence targeting and laser signal analysis. It consolidated all scientific and technical databases into a single, comprehensive scientific and technical database. The use of automated microfilm storage, retrieval, and display equipment improved accessibility to document, processing, retrieval, and dissemination.

The importance of the technical imagery analysis being performed by FTD led to the completion of a large photo laboratory in 1967, Building 829. This 40,000 square foot wing housed FTD's growing sensor data processing and analysis mission. The one-story building was constructed with concrete block exterior walls faced with precast concrete panels located between concrete structural piers. The Photo Laboratory was modernized in 1982.

Building 856 was added to the complex in 1976. The building is composed of two large rectangular wings that are joined in the middle by a small connecting structure. The only windows in this facility are located in the connecting structure and are organized on both floors in horizontal rows. The exterior walls consist of precast concrete panels on the first floor and corrugated metal siding on the second floor. A Special Operations Intelligence facility, Building 858, opened in 1997.

FTD authorizations fell to 1,587 people in 1976. During the Carter, Reagan, and Bush administrations, division strength increased to a peak of 1,957 in 1990 as technology transfer and weapons proliferation became national security issues.

FTD EXPANSION

Foreign Technology Division almost moved to Florida in the early 1970s. Building 829 had just been finished in 1967, yet FTD still needed 320,000 square feet of new office space to accommodate its expanding mission. Patrick Air Force Base had office space available. A comprehensive study of the costs involved in such a move showed that it would be less expensive to build new facilities at Wright-Patterson. This became Building 856, the main part of the NASIC complex today. The first phase of construction began in April 1973 and added 77,280 square feet at a cost of \$3.08 mil. The second phase started in May 1974 and added 242,000 square feet at a cost of \$11 mil (see Figure 4). Occupancy came in July 1976 and the dedication took place on 16 September 1976. This greatly expanded FTD's intelligence production capability. Whereas the first Readix computer, installed in 1955, had only four kilobytes of memory and one work station, FTD equipment by the end of the 1980s included a work station for almost every worker and several main frames and specialized systems. In 1992 the Air Force redesignated FTD the Foreign Aerospace Science and Technology Center (FASTC).

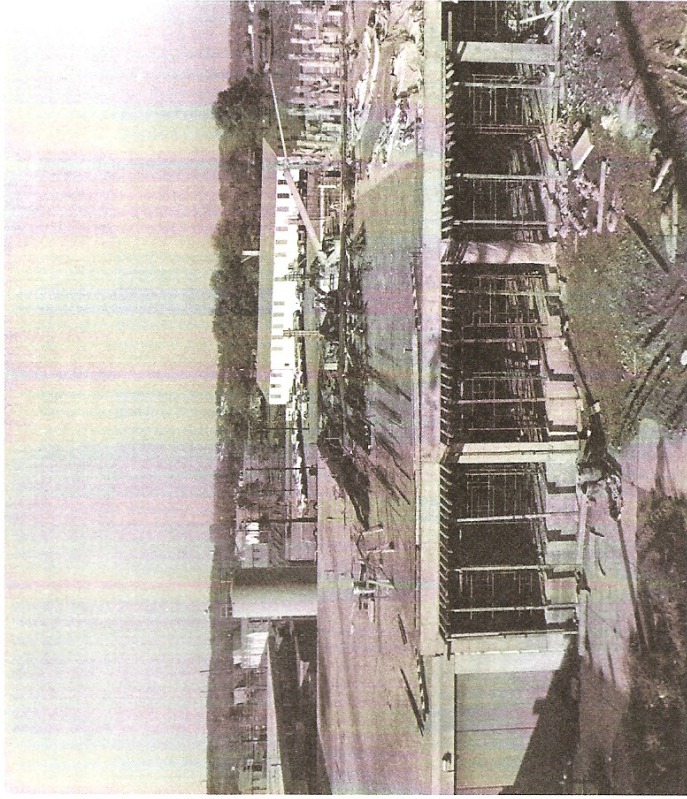


Figure 3. Building 856 under construction in November 1973.

The initials "FTD" are how many people still refer to the scientific and technical intelligence (S&TI) mission at Wright-Patterson. For 30 years the center kept the same name, yet the reputation grew. FTD personnel became known throughout the Air Force and the intelligence community as the experts in Soviet aircraft, missiles, space systems and related equipment performance. The "official" history of NASIC starts with the formation of FTD in 1961. From 1961 to 1991, the Foreign Technology Division was the Air Force's S&TI center of excellence for foreign air and space systems. During the FTD years, unit manning rose and fell with world events. From 911 authorizations in 1961, the division more than doubled its manpower by 1968 and 1969 and the height of the Vietnam War. Paralleling American withdrawal from Southeast Asia,



Figure 4. Completion of Building 10856 construction in 1976.

In response to a Department of Defense trend, the Air Force merged its scientific and technical intelligence center with its general military intelligence (GMI) organization in 1993 to form the National Air Intelligence Center (NAIC). The National Air Intelligence Center was formed 1 October 1993 with the integration of FASTC and the 480th Intelligence Group (IG). NAIC's mission included assessing current and projected foreign aerospace capabilities, developing targeting and mission planning intelligence materials, and evaluating the evolving technologies of potential adversaries. The Air Force redesignated NAIC "National Air and Space Intelligence Center" in February of 2003. The name more accurately reflected NASIC's vast contributions to the nation's space intelligence requirements.

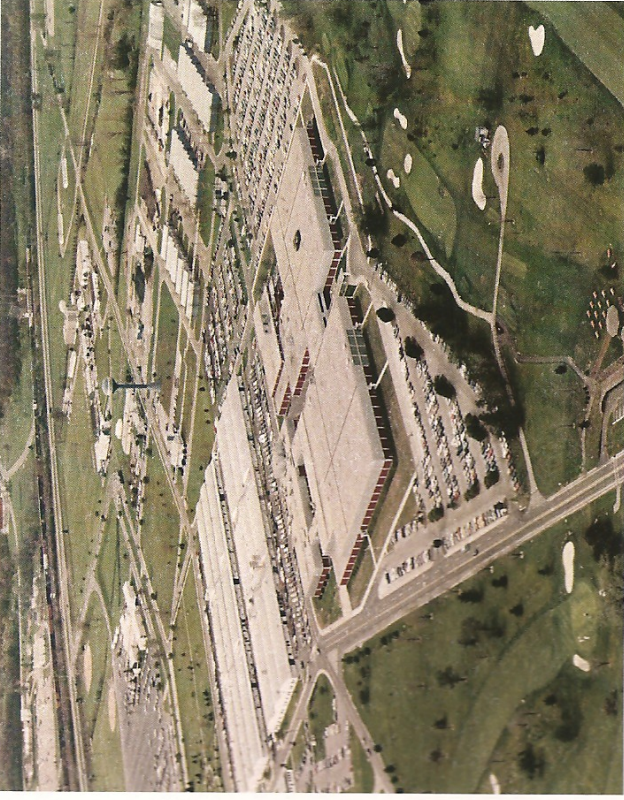


Figure 5. FTD complex in 1986.

THE FUTURE FOR NASIC

The National Air and Space Intelligence Center (NASIC) opens a new chapter in its long history of service to the nation with the new military construction project (MILCON) that will initially add over 100,000 square-feet of space to the NASIC. The new space, added to what is already the largest facility of its kind in the Air Force, will greatly enable NASIC's engagement of national security challenges today and tomorrow-positioning the Center as a key innovative leader in intelligence. The facility will house advanced information technology, permitting intelligence analysts quick access to all sources of information, and tools to turn such information into the knowledge needed to defend our national interests in the air and space realms. It will include a 500-seat auditorium, one of the largest of its kind, which

will be capable of hosting the classified exchange of information and ideas within the national intelligence community that is increasingly important to our security.

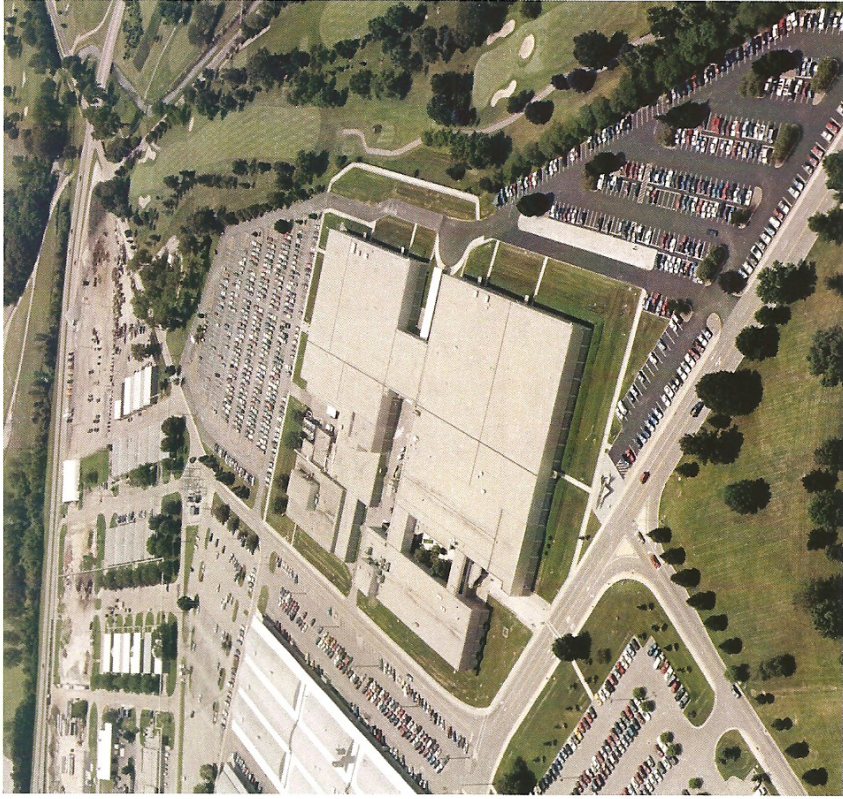


Figure 6. NASIC complex ca. 2005.

The Intelligence Production Complex will also provide space specifically designed to facilitate crisis support, allowing the focused application of all expertise and capabilities within the Center to national emergencies in real and near-real time. Space will also be added for expanded

intelligence production in a number of areas key to national security that fall within the mission of the NASIC.

Since 1951, the Center has provided intelligence on current and projected threats to and from the air and space realms for national and Department of Defense policy makers, warfighters, and the force modernization community. This MILCON facilitates the transformation of NASIC into a unique and unequalled intelligence capability to meet the air and space related national security challenges of today and tomorrow. It also represents the first phase of potential expansion at the Center as future missions become reality.

For more information about the history of NASIC, please visit the following website:

<http://www.wpafb.af.mil/naic/history.html>

For more information about Wright-Patterson Air Force Base's historic buildings, please visit the following website:

<http://www.abwem.wpafb.af.mil/viewchild.cfm?id=107>

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