A SHORT HISTORY OF THE FOREIGN TECHNOLOGY DIVISION (AFSC)

Technical Data Laboratory

AFSC's Foreign Technology Division traces its lineage directly from the establishment of the Technical Data Laboratory in December 1942, at Wright Field, Dayton, Ohio, as part of the Army Materiel Command. Although certain intelligence functions within the Materiel Command and its predecessors date back to 1917 with the establishment of McCook Field, another Dayton airfield, the work of scientific and technical intelligence in the Air Force began much later.

During World War II, the Laboratory's operations included the evaluation of foreign aircraft and related equipment. As the shipments of captured equipment increased, the intelligence data soon occupied six buildings, a large outdoor lot on Wright Field's hilltop area and part of a flight line hangar.

T-2 Intelligence

With the merging of the Materiel and Air Service Commands on 31 August 1944, The Army Air Forces Air Technical Service Command was formed. When the "Army Air Forces" prefix was dropped on 1 July 1945, T-2 Intelligence replaced the Technical Data Laboratory under the T-System organizational concept. This organization played a major role in the continued exploitation of captured materiel, documents and manpower.

During the summer of 1945, General Henry H. Arnold directed that the millions of captured German aeronautical documents be processed and indexed. The task began in London, but was transferred to T-2 Intelligence, Wright Field, in December. When completed in November 1947, this operation became one of the outstanding accomplishments in documentation history; the evaluation, classification, cataloging, indexing and microfilming of Nazi Germany's aeronautical R&D literature from 1933 to 1945.

Two organizational changes also occurred during this period. One change was in name only when the Air Technical Service Command became the Air Materiel Command in March 1946. However, the second change in August 1947, was a major reorganization. At that time, the Air Materiel Command headquarters replaced the T-System with a directorate/department type of organization. T-2 Intelligence then became the Technical Intelligence Department.

Technical Intelligence Department

With the post-war rise of world communism, the Technical Intelligence Department intensified its efforts to produce technical intelligence

reports and estimates on foreign air weapons. At this stage, however, background information on foreign scientific and technical progress was very inadequate in both quality and quantity, and the Air Force had no adequate data base to confirm or deny the information that it received. Therefore, a determined effort to exploit foreign published literature during the late 1940's was the beginning of the Technical Intelligence Department's technical data base. It was also during this period that a photo analysis capability began to develop.

By 1950, the department was able to predict, from all available information, the performance limitations of the MiG-15, the capabilities of its engine and various manufacturing techniques. These proved of inestimable value during the Korean conflict when United States fighter aircraft more than held their own against the Russian-built MiG fighters, because valid performance characteristics estimates had already been established on these weapons.

Air Technical Intelligence Center

Another reorganization in May 1951, changed the name of the Technical Intelligence Department to the Air Technical Intelligence Center, and assigned the new organization to the Directorate of Intelligence, Headquarters USAF, as the 1125th Field Activities Group. With this move ATIC became a fully recognized member of the intelligence community, and was able to integrate its production schedules more efficiently with the overall United States intelligence effort.

By the mid-1950's, ATIC's emphasis on documentation had produced an impressive file of retrievable scientific and technical information, including the developing Soviet missile program. An important contribution to the center's data bank occurred in 1953 when a North Korean defector flew a MiG-15 to South Korea and collected a $100,000 reward. In fact, a great deal of foreign materiel was acquired between 1950 and 1954, and this wealth of raw intelligence required modern methods and techniques in reducing it to usable data. In order to accomplish this task, ATIC became a pioneer in the use of computers in intelligence analysis. Also during the mid-1950's, the center established radar intelligence, electronic intelligence and machine translation capabilities.

Meanwhile, worldwide technology also advanced, and due to the progress of foreign aerospace programs, the Air Technical Intelligence Center was renamed the Aerospace Technical Intelligence Center on 21 September 1959.

Foreign Technology Division

The following year a major Air Force realignment transferred the Air Research and Development Command into the Air Force Systems Command in April 1960, and the Aerospace Technical Intelligence Center was added to AFSC on 1 July 1961. At that time, the name of the center was changed to the Foreign Technology Division to correspond to AFSC's division structure.

As a part of AFSC, FTD functioned in a dual role. The division retained its responsibility for producing aerospace scientific and technical intelligence for the Air Force and other national agencies, while supporting Air Force research and development.

As the acquisition of foreign materiel and data from all sources continued to expand, so did FTD's scientific and technical capabilities. In 1961, the division's photo analysis process became automated, utilizing a first generation on-line system with a second generation capability added in 1967. Since that date, the system has been upgraded even further. Also upgraded from the early to mid-1960's to their present capabilities were the radar intelligence and computer systems.

In 1963, FTD added a telemetry capability to its intelligence arsenal which provided invaluable information on foreign aerodynamic, ballistic missile and space vehicle systems. That same year, the division upgraded its machine translation system with the addition of the Mark II Russian Language Processor which provided a Russian-to-English computer translation print-out. But the real breakthrough came in July 1970, when the FTD machine Translation system became operational. Whereas the Mark I and Mark II machines were literal translations and reflected the word order of the Russian sentence without the articles and prepositions required in English, this system made a comprehensive analysis of the Russian sentence and had a larger dictionary capability. It also translated from 100,000 to 300,000 words per hour compared to 50,000 to 100,000 words per day for older systems.

Also in 1963, FTD's data base became automated. The Central Information Reference and Control (CIRC) system represented a computerized library of scientific and technical information from many sources and available for instant recall. CIRC I satisfied FTD and command S&T intelligence requirements until 1969, when it then began serving the entire Department of Defense. Further updating of the system was completed in 1974 with the conversion to CIRC II, a much expanded and more versatile all-source data base.

Other capabilities acquired during the 1970's included Human Intelligence Targeting in 1970, a modernization program in 1972, which was upgraded from the informal project status it had had since 1967, and Laser Signal Analysis in 1973.