

# A History of NASIC

NATIONAL AIR AND SPACE INTELLIGENCE CENTER

WRIGHT-PATTERSON AIR FORCE BASE, OHIO

## Foreign Technology Division and the F-15

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I was assigned to the Foreign Technology Division (FTD) as a captain in 1963. Prior to that, I had worked at the Aircraft Lab at Area B of Wright-Patterson Air Force Base, gone to graduate school at the Air Force Institute of Technology, finished pilot training, and had flying experience in both jet bombers and fighters.

My first duty at FTD was to analyze Soviet fighters in the aircraft division. I later became chief of the fighter branch at about the time I made major. During my first year at FTD, I became the primary analyst of the MiG-21 and prepared a briefing that I gave to a wide audience, including numerous parts of the air staff at the Pentagon, Tactical Air Command headquarters, parts of Systems Command, various fighter wings, and units serving in Vietnam

During my briefing tour, I met Major John Boyd, who was doing innovative work at Eglin Air Force Base in developing energy maneuverability as a concept for comparing the combat capability of fighters and determining tactics for successful engagement. During one of our discussions, John Boyd expressed concern that some of his audiences did not believe the capability of fighters the Soviets were projected to have about 10 years in the future. I suggested to him that he should use only aircraft that were currently in the inventory, in particular the MiG-21, about which we had good information. He accepted this without hesitation.

It should be understood that this was at a low point in fighter development for the Air Force. The F-100 was the last true fighter developed. The F-105 was really a low-maneuverability fighter-bomber that had been optimized for a low-level nuclear delivery role, and all development in the late 1950's had been air defense

interceptors like the F-104, and nuclear bombers such as the newer model B-52, the B-58, and the B-70. As the Vietnam war increased in intensity, the Air Force swallowed its pride and adopted the Navy F-4 as its primary production fighter to meet combat needs.

John Boyd attacked this situation with zeal that some considered fanatical, and saw himself as a messiah sent to enlighten the people who were in a position to guide new procurement of a fighter with true air superiority. He briefed widely, passionately, and loudly. I supported his efforts and made sure that he had current and credible data on Soviet capability.

My briefing on the MiG-21 was synchronized with his on energy maneuverability and the need for a new airplane, and we sometime presented them at the annual Fighter Symposium at Nellis Air Force Base. I incorporated some of his energy maneuverability diagrams into my material, and FTD produced and published energy maneuverability data on Soviet fighters long before it was done for friendly aircraft. John Boyd calculated his own friendly data and used that provided by FTD for the threat.

I ran into some bureaucratic enlightenment when I first wanted to compare the MiG-21 to US fighters in my briefing. I was told that this was not the function of an intelligence organization; so I asked who was doing it. The answer was nobody. Air Force Studies and Analysis was just being born in the Pentagon, and our sister division, the Aeronautical Systems Division at Area B, considered it outside the scope of their functions.

I suggested to my division chief that we make the comparisons, and if any other organization asserted that it was their function then



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we would give it to them. My chief approached Brigadier General Arthur Cruikshank, the FTD commander, with this proposal and got immediate approval. General Cruikshank, who had been a fighter pilot dating back to the Flying Tigers, was not about to let bureaucratic niceties get in the way of doing something that made sense. Interestingly, no other organization came forth to assert that they should be doing comparisons, and many generals in the Pentagon were happy to see useful decisionmaking data for the first time.

The work that John Boyd did, aided by credible and timely data from FTD, led to the development of the F-15, for which the requirements were pretty well defined by the late 1960's. Detailed specifications continued to be refined using threat data, and it is no coincidence that the twin vertical fins of the F-15 resemble those of the MiG-25/FOXBAT, which preceded it in development.

After my tour at FTD, I was assigned to intelligence at the Pentagon and, among other functions, served as the primary point of contact for ensuring that current threat data was used for the F-15.

The specifications for the F-15 were pretty well frozen, but there was an onslaught of critics from various agencies who tried to use threat information to kill the program. Some asserted that it was not capable of coping with an advanced Soviet threat, while others asserted that it had too much capability and was too expensive.

All attempts to kill the program were successfully countered, and FTD was frequently called on to provide specialized threat data in various formats. The organization was always responsive and provided information that could be credibly defended before any aircraft manufacturer, intelligence agency, and research and development organization.

Little of what is presented here will be found in any written history of the F-15 and its development. By nature, intelligence agencies are secretive and have a low profile, and the good that they do is frequently obscured by the more visible fruits of their labor. However, FTD played a significant and important part in the acquisition of the F-15 and its contemporary, the F-16.



*MiG-21SM*