Air and Space this Week

Item of the Week

A TALE OF TWO DEFECTIONS

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Military planners require intelligence to be successful. Not just the ability to process information and think critically and effectively, they need knowledge of their opponents' capabilities and intentions, especially when the opponent holds a stronger position. Such intelligence comes from many places, ranging from relatively-open sources such as military attachés and public displays to espionage and codebreaking of intercepted radio messages.

One of the critical things for a military force to know is capabilities of the weapons of their opponents. And there is no better way to acquire that information than to be able to examine and test them. This was especially true for new models of aircraft!

THE AKUTAN ZERO

A famous example of the value of examination of an opponent's airplane is that of a Zero fighter plane captured on Akutan Island in the Aleutians in June, 1942. The Japanese were on the attack in the central Pacific, sending the *Kido Butai* and the bulk of the Japanese Navy against the American naval base on Midway Island. Other attacks had been in the works, including one on the American base at Dutch Harbor on Unalaska Island, more as a defensive move to prevent an American attack from there and potential future bases against the Japanese home islands. Both sides overestimated the military value of the Aleutians, and underestimated the difficulties of conducting military operations there. As the plans for the Midway operation were in their final stages, it was decided to continue with the planning for an attack on Dutch, which would have value as a diversion of American defensive efforts.

Americans had broken the primary code used by the Japanese Navy, JN-25, and knew the plans for the Japanese attacks at both Midway and Dutch well beforehand, and worked to augment the meager defenses in both places. The codebreakers provide the information necessary for Admiral Nimitz to set an ambush that <u>resulted in the destruction</u> of four of Japan's largest aircraft carriers.

The attack at Dutch was a smaller affair. A small Japanese task force, comprising two light aircraft carriers and some supporting warships, launched an aerial assault on Dutch on the morning of June 3, 1942. The Americans were alert, but were unable to prevent some bomb damage at Dutch. Several planes were lost, too. An attack the next day was also semi-successful but not decisively so. But there was one minor event that had significance.

Copyright 2023 by Steven H. Williams Non-commercial educational use allowed Both carriers present, the *Junyo* and the *Ryujo*, were launching Kate level bombers and Val dive bombers, escorted by a number of Zero fighters as they had been on the previous day. The Japanese were still fighting in groups of three, and one particular trio of Zeros from the *Junyo* were active that day. Their mission was to escort the bombers and strafe defensive installations. On the way in, the trio of Zeros encountered a PBY flying boat search plane piloted by Albert Mitchell, and shot it down, strafing the survivors in the water. They then proceeded to attack anti-aircraft positions and shipping in the harbor area. [The U.S. named its airfield on Adak after Mitchell, and that name remains in place to this day, although the <u>field is</u> <u>no longer active</u>.]

One of the Zeros, piloted by Tadayoshi Koga, was hit by bullets, either from Mitchell's gunners or by ground fire. A single bullet severed the line between his plane's oil pump and engine, causing a large leak that would prevent Koga from flying long enough to make it back to the *Junyo*. The Japanese were prepared to rescue downed airmen by having a lifeguard sub stationed off Akutan Island, about 25 miles west of Dutch.

Koga made it to Akutan and got ready to land. He saw a flat area that looked solid, but it was really muskeg, a bog-like wetland too soft for a safe landing. Koga put his wheels down (the absolute wrong thing to do) and tried to land. His wheels dug in, flipping the plane quickly over its propeller and splashing down, inverted. Koga suffered a broken neck from the landing/flipping shock, and died in his cockpit.

His two partners aloft witnessed the crash. They were under orders to strafe any downed plane to prevent it from being used by the Americans, but they were concerned that Koga might still alive, and hesitated. Low fuel levels prevented them from tarrying, and figuring that the wreck would have little military value even if it were found, they flew back to *Junyo*.

Koga's Zero, Mitsubishi Type 0 Model 21 (A6M2), serial number 4593, lay in the muskeg for over a month before a passing patrol plane spotted it. It was difficult enough just to reach it, but the Navy did and with enormous effort managed to disassemble it partially. The wings proved to be an integral part of the fuselage and could not be detached, but the Navy eventually was able to remove the Zero and transport it first to Dutch and then to North Island NAS (San Diego), where it arrived on August 15. It was repaired enough to be flyable, and was studied in great detail.

Allied pilots had been in action against the Zero for eight months at that point, and had already worked out its basic flight characteristics and the best defensive tactics to use against it. But having a working model to test fly and study proved to be highly valuable, nonetheless. Ancillary equipment, the lack of pilot armor and self-sealing fuel tanks, and other aspects of the plane were important. So, too, was the finding that both the Zero's radio and its electrical generator had been made in the USA!

Flight test and close examination showed the best way to attack and defend against the Zero, and having that information at a major Naval base facilitated getting that info incorporated into pilot training programs, making the Zero less of a formidable foe it otherwise would have been.

DEFECTION #1

The Germans proved late in WWII that the future of military aviation was in jet propelled aircraft. Their Me-262 "Swallow" jet fighter made its first flight on July 18, 1942, about the time Koga's Zero was being recovered. It entered service in mid-1944, and had it had been used from the start as a bomber interceptor, and been available in larger numbers, it would have posed an enormous problem for the Allies' strategic bombing campaign. It could fly 100 MPH faster in level flight than any of the Allies' fighters! It's large turning radius precluded it being in any tight WWI-style dogfights, but with its speed and heavy armament, it was almost impossible to defend against. It was only really vulnerable when it was low and slow, taking off or landing.

After the War, both the Allies and the no-longer-Ally the Soviet Union, rushed to develop jetpowered fighter aircraft. The U.S. would develop and put into service the F-86 Sabre in 1949. Its swept-wing design made it faster than the first American jet fighters, but could barely exceed the speed of sound in level flight [Jackie Cochran became the first woman to fly faster than sound in one on May 18, 1953]. The F-86 would be America's air superiority plane during the Korean Conflict.

The USSR put the MiG-15 jet fighter into service in 1949, too, and made it available to Soviet satellite countries, including North Korea. A second-generation improved version, the MiG-15bis, entered service the following year. The MiG's flight performance was similar to that of the F-86, and it had three cannons for aerial combat (one 37mm and two 23mm).

The MiG-15 quickly proved that piston-engined airplanes were obsolete, to the detriment of a number of Americans flying B-29s over Korea. The B-29s were quickly removed from combat, and many of the WWII-era fighters were relegated to patrol, ground attack, and duties other than aerial dogfighting. The Americans hurried to get the F-86 into action, and wanted to get as much information as possible about the MiG-15. One tactic was <u>Operation Moolah</u>, <u>offering a bribe</u> (of what would now be over \$1M) to any pilot defecting to the U.S. with a MiG-15.

No Kum-sok was a 21-year-old North Korean senior lieutenant flying the MiG-15. His father had been killed in the Conflict and his mother defected to South Korea in 1951, but No was considered reliable, having made over 100 combat missions. But he, too, was dissatisfied with life in the North.

On September 21, 1953, No took off routinely, but then quickly turned south and applied full throttle. His 620 MPH could cover the distance to Kimpo Air Base in South Korea in less than twenty minutes, and he was so far ahead that the Russians didn't follow. The Kimpo radar system was under repair, and his approach went undetected until his Mig-15 roared into the traffic pattern and landed downwind, just missing an F-86 landing at the same time from the opposite direction. [Had the radar been working and No tried to land upwind, he no doubt would have been intercepted and shot down.] He was quickly surrounded by security forces, and debriefed by the CIA. He had never heard of Operation Moolah's offer, but he got the reward anyway.

No's MiG-15 was taken first taken to Okinawa, where it was test flown by H.E. Collins and Chuck Yeager, and studied in detail. The information gleaned was of considerable use in devising tactics to counter the MiG's capabilities. The plane eventually ended up in the collection of the National Museum of the United States Air Force in Dayton, Ohio.

The North Koreans were understandably irate, but there wasn't much they could do about it. Except retaliate against those they could reach. The top commander in the North Korean air force was demoted, and five of No's comrades were murdered by firing squad.

DEFECTION #2

The Korean Theater was the stomping ground of both the MiG-15 and the F-86. But more advanced jet fighters were continuously under development. By the mid-1970s, the American air superiority fighter was the F-4 Phantom, and its Russian counterpart was the MiG-25 "Foxbat." As was the case with both the Zero and the MiG-15, Americans had a pretty good general idea of the MiG-25's flight characteristics and combat strengths and weaknesses. However, getting our hands on one would be most helpful in fighting against the -25. The Republic of China offered gold to Chinese fighter pilots to defect with their planes, Israel offered Iraqi pilots a similar reward, and the U.S. tried an updated version of Operation Moolah called Operation Fast Buck, aimed at MiG-25 pilots in North Vietnam.

Victor Belenko was a MiG-25 pilot based at a primitive base in eastern Russia called Chuguyevka. Living conditions were terrible, morale was in the dumps, and every suggestion Belenko made to improve things was angrily rejected by the base's political officer. When his wife threatened him with divorce and the loss of his son, he decided he'd had enough of Russia and its repressive government. Like No Kum-suk before him, Belenko resolved to defect to the West, using his MiG-25 as his path to freedom.

Belenko and several other pilots from his squadron took off on a training mission from Chuguyevka on September 6, 1976. The group climbed out as planned, but Victor suddenly dove and rapidly headed east, hoping to land at Chitose Air Base in Japan. The weather was bad, and Japanese-flown F-4s could not find Belenko's plane, which was detected by air defense radar.

Chitose was socked in, so Belenko headed for Hakodate Airport, on the south end of Hokkaido. He was skosh fuel, and had to land quickly, even though the Hakodate runway was too short for his high-speed jet. He almost hit a B727 that was taking off, then ran off the end of the runway despite deploying his plane's parachute brake. His plane had enough fuel for 30 more seconds of flight.

Japanese civilians were first on the scene, and crowded around the Russian plane. Belenko scared them away by firing his pistol into the air. The local police quickly took charge, and moved Belenko to Tokyo on September 7. They arrested him and charged him with violating Japanese airspace and for discharging his pistol in public. In response, he requested asylum from the U.S. and it was granted on the 8th. On the 9th, a representative from the Russian

Embassy in Tokyo met with Belenko trying to get him to come home, but Victor refused, and left for the United States soon thereafter. The Russian captured several Japanese fishing boats in retaliation.

The Japanese government was worried that the incident would lead to an invasion of Japan. Needless to say, the ease with which Belenko got to Japan caused the Japanese Defense Force to beef up its radar and interception capability!

Belenko's MiG was trapped at an airfield with a runway too short for it to take off again. The aircraft was partially disassembled and transported by a C-5A Galaxy cargo plane to Hyakuri Air Base on Honshu, escorted by four F-4s.

The Japanese were somewhat in a bind. The Russians to their west were clamoring for the return of both Belenko and his aircraft. The Americans had already granted Belenko asylum and had taken him to America. Japanese and Americans disassembled the MiG-25 further and studied it in great detail; little was left to be learned apart from flight testing the aircraft, which wasn't possible. The pieces were eventually rounded up, crated, and shipped to the USSR on November 15. Russian charged Japan for \$10M for damage to Belenko's aircraft. Japan in turn charged Russia \$40K for damage at the Hakodate Airport and shipping costs. Neither bill has ever been paid.

The Russians went to Chuguyevka Air Base as part of the investigation, and were appalled at the conditions there. An immediate upgrading of the facilities was ordered, and the treatment of USSR pilots in that area improved markedly.

The good news for us was that while the MiG-25 was very fast (already known), it was less advanced than previously feared. What was learned about its strengths and weaknesses informed the development of the F-15, which was specifically designed to counter it.

Belenko, his MiG-25, and the operations manual he brought with him, all were a boon to U.S. military intelligence, at least until we captured a more advanced model of the MiG-25 after the 2003 invasion of Iraq.

CODA

The Akutan Zero was studied and tested against most of the airplanes in the U.S. arsenal. Alas, very little of it remains today. In February, 1945, Cdr. Richard Crommelin of the famed Alabama military family, was taxing on the way to take off on a training flight, when it was overrun by a Helldiver, whose pilot had a very limited forward view. The Helldiver's big prop ripped apart the Zero's fuselage from tail to cockpit; it never flew again. A few instruments and other bits were salvaged, but its days of usefulness are over. Some of the instruments are now at the museum in Washington Navy Yard and its manufacturers' identification plate is in the collection of the National Air and Space Museum.

No Kim-sok immigrated to the U.S., changed his name, rejoined with his mother, got married, and earned a degree in mechanical and electrical engineering from the University of Delaware. He worked for a variety of aviation-related companies for a while, and then was an aeronautical

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engineer at Embry-Riddle for 17 years, before retiring. No passed away on December 26, 2022, never once regretting his decision to defect. He was survived by his wife, two children, and one grandchild.

Viktor Belenko moved to the U.S. and was interrogated thoroughly by the CIA. He learned fluent English, became a consultant to the U.S. military and aerospace industry, married an American woman and raised two children, became a public speaker and businessman, and got divorced. He never saw his first son, and never officially got divorced from his first wife there.

Belenko was actually able to visit Moscow again in 1995, after the dissolution of the USSR.

He stayed out of the limelight in the U.S., and was happy with his new home country. He shunned publicity, but he did talk in a bar in 1996 to Karen Reedstrom, who reported it in the November, 1996, issue of a resource called *Full Context* (excerpted <u>here</u>).

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DIDJA KNOW?

The Crommelin Brothers

The five Crommelin brothers of Alabama mentioned in this week's Item were sometimes referred to as "<u>The Indestructibles</u>." All five attended the U.S. Naval Academy; four would become pilots and the fifth was an officer in the surface Navy.

John Crommelin served in carriers, ending up as the Chief of Staff on the escort carrier *USS Liscome Bay*, which was torpedoed and sunk. He was injured in the sinking but was rescued. After the War, he was involved in a public war with the nascent U.S. Air Force over aviation resources; the event became known as the "<u>Revolt of the Admirals</u>." He was retired from the Navy in 1950. His post-War life was much less patriotic; he was a staunch segregationist and anti-Semite, and ran several times for the U.S. Senate, and was the Vice-Presidential running mate with Orval Faubus of the National States' Rights Party in the 1960 election (they got 0.07% of the national vote). Faubus is most remembered as the Governor of Arkansas who refused to honor the 1954 Brown vs. Board of Education decision and tried to use the National Guard to prevent Blacks from attending a White High School. President Eisenhower federalized the Arkansas National Guard and ordered them to escort the Black children involved enter the school in spite of a hate-filled angry mob gathered to stop them. John Crommelin's outspoken opinions and racism <u>put him on the sidelines</u> when a Navy Frigate (FFG-37) was launched bearing the name <u>USS Crommelin</u> [although some of the snubbing of John C. has been removed in the past few years].

Henry Crommelin's poor eyesight prevented him from becoming a pilot, but he served with distinction on a variety of naval warships, ultimately commanding a destroyer group during the invasion of North Africa. He won a number of decorations after that, and eventually became a Vice-Admiral, the Commander of the U.S. Atlantic Fleet.

Charles Crommelin, mentioned in the Item as the pilot of the Akutan Zero when it was wrecked in a taxiing accident, won a DFC in the Pacific in August, 1943, for his fighting during the carrier raid on Marcus Island. He gained considerable notoriety soon afterward when he was peppered by broken glass when his Hellcat was hit by anti-aircraft fire. He landed, and hit the O-Club bar before getting treatment. Later in the War, he served on the USS Hornet, and was shot down over Okinawa on March 28, 1945.

Richard Crommelin was a fighter pilot on the *USS Yorktown* during the Battle of the Coral Sea and Midway. He was awarded the Navy Cross with Gold Star for those actions. By mid-1945, he was a senior squadron commander, in charge of *Yorktown*'s fighter unit. On July 14, 1945, his aircraft collided with another in flight, killing him.

The youngest brother was Quentin Crommelin. He was a junior officer on the USS Saratoga when Pearl Harbor was attacked. The Sara was at sea on December 7, and survived, but it played a big role in the Solomon Island campaign in late 1942. He retired as a Captain in 1970, and passed away on April 30, 1997.

Astronauts with Combat Victories

John Glenn shot down three MiG-15s over Korea, flying an F-86. He also flew combat in WWII.

Gus Grissom flew over 100 missions over Korea in an F-86.

Wally Schirra flew over 80 missions over Korea in an F-86, and shot down two MiG-15s.

Deke Slayton flew combat during WWII.

Buzz Aldrin, also flying the F-86, shot down two MiG-15s and his <u>gun camera film</u> of one of the pilots ejecting made a splash in the U.S. media. He would be awarded with two DFCs for his service in the Korean Theater.

There are others....

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