

U.S. Army/German Army OV-1 Mohawk  
Evaluation program summary  
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After observing the OV-1 Mohawk operations by the U.S. Army in USAREUR the German Army requested that they evaluate the operational capabilities of the OV-1 B and OV-1 C for possible use along their northern borders with the east. Such an evaluation would not only help the Germans but also Grumman, the airframe and other sensor manufacturers. The attached article "The Mertz Marauders" addresses the international political side of the story related to both the German and French evaluation programs. Therefore I'm addressing only some of the operational highlights of each program and leave the politics to your imagination.

The U. Army Aviator Team consisted of myself, Major James R. Barkley Sir (Team Leader from Army Material Command (AMC) OV-1 Mohawk Project Managers office), Captain George Mikula and Captain Bill Simpson, both from Mohawk stateside operating units. In addition there were technical representatives from the airframe, power plant, SLAR, IR and camera manufacturers. Just prior to our departure from the states in September 1963, an additional officer was assigned without my prior knowledge. He was Major Frank Wilson from the Army Security Agency (ASA). He was a non aviator and initially I had no idea as to why he was assigned to the team.

Upon arrival in Germany we were to pick-up a new OV-1 B and OV-C and an L-20 support aircraft from the U.S. Army Aviation Maintenance Center (USAAMC), Sandhofen Germany and fly them to the German Army flying school (HERRESFLIEGERWAFFENSCHULE) located at Buckeburg in the British sector. Prior to departing Sandhofen, all U.S. Army markings were removed from both Mohawks. They were replaced with the German Iron Cross on the fuselage and HERR (Army) on the wings. The aircraft were identified as ABQ and ABW. Because of these unusual markings, I was instructed that neither aircraft could return to the American sector without prior Embassy approval, even should we require heavy maintenance at USAAMC. Keep in mind that the State Department, through the American Embassy at Bonn had done most of the political spade work prior to our arrival on site so initially we had wing it as fast as U.S. Military/German military was concerned.

Upon arrival at Buckeburg, I was very pleased to find that the German Commander, Colonel Abeling, (a very strict military man), the German Army Evaluation Team Chief, Major Henri Roaper and his assistant a captain whose name I don't recall, were not only fluent in English but all were Army Aviator graduates from the U.S. Army Aviation Center, Fort Rucker. As the evaluation got underway, true to German form, everything was planned and executed by the numbers. There were morning briefing to discuss each day's activities, an evening briefing to review how things went that day against what had been planned and if night missions were scheduled, what would expected.

During the next several months many SLAR missions were flown generally along the track indicated on the attached map. It was also then that we kind of suspected why Major Wilson was with the team. In addition to English, he spoke fluent French, German and Russian and frequently appeared in civilian clothing. He would leave us for several days at a time and usually upon returning, we would have a SLAR mission parallel to the border along an East German location.

The SLAR missions were usually flown at night between midnight and dawn. As soon as the aircraft landed the SLAR film package was removed by Major Wilson and we would never see or hear of the results. Because we were flying so called German aircraft with German markings we did not have to comply with the border intrusion restrictions imposed upon the U.S. Pilots flying in the American sector. We flew flight tracks that were given to us in real time from a highly classified (At that time) radar site. Hannover, terminal radar and approach control were in the loop so as to insure that upon departure and arrival at Buckeburg we did not conflict with civilian air traffic in the Hannover, Bremen, Hamburg.

For several reasons all of the night missions from Buckeburg were a challenge. The 2000m runway did not have lights or any approach radar or GCA. For lighting we would line the runway with lighted smudge pots and hope that they would still be burning when we returned. Night departures and arrivals were handled through Hannover radar. They would be advised when our aircraft would be ready to depart. Because of some rather high hills between Buckeburg and Hannover, we usually would not be acquired until reaching about 1500ft (they would say 500m). Upon acquisition, heading information would be provided to insure adequate separation with other traffic. We would then be handed off to our classified tracking radar. When returning to Buckeburg, Hannover approach control would align the aircraft up with the Buckeburg runway and as a radar track was lost he would say "Good Night" in perfect English. From there on to touchdown, we were on our own.

All of our IR and photo missions, both day and night, for obvious reasons, were flown ONLY in West German airspace. Many of the missions were held in coordination with West German military exercises. Following our first night photo mission over Munster, during which time we activated the flares, when each flare eliminated with a loud bang, the local civilian population thought that the Russians were invading. So, for all future flare missions, the location had to be preselected and the population in that region advised in advance.

There were several IR evaluation missions that are worthy of mentioning. First; it was about mid November and getting pretty cold in that region. The buildings in the military compound at Buckeburg were all heated by high pressure steam. The steam generating plant was located some 300/400m from the buildings to be heated and the steam pipes were buried some 3m underground. Although steam was being produced at the source, it was not reaching to garrison buildings. Our IR team tech Rep. suggested that an IR mission be flown over the compound to determine if an underground heat source could be detected. To insure maximum heat reflection the mission was conducted at night. On the very first pass, just outside of the steam generating plant between the plant and the compound buildings there was an IR reflection as big as a house. Excavation of the area the following morning revealed a large fracture in the steam pipe which was repaired and heat restored. So everyone was very pleased. Second: During a night IR evaluation mission over the West German Seaport of Kiel and surrounding harbor area, I was a mile or so out over open water and had just completed a 180\* turn south back toward Kiel. Abruptly the IR operator picked up a hot IR signature with a trail of heat. It was heading east at high speed toward the East/West German boundary. Later valuation of the IR data strongly suggested that the object was a foreign submarine accidentally detected on the surface before make a high speed dive. There was one unfortunate incident which occurred during the course to the German military evaluation. The German military had a number of very experienced enlisted pilots, most from WW-II days. The U.S. Army invited the German Army to select two fixed wing multi engine rated pilots to be sent to Fort Rucker (at U.S. expense) to attend Mohawk training. Two enlisted pilots with the required qualifications were accepted and attended Mohawk training commencing late September early October. Training went well until Sgt Watsonburg, one of the German student pilots and a U.S. army flight instructor went out on a night photo training mission. Both flare pods had been loaded full with flares prior to departure. Over the designated training area the camera and flare system were activated. When a flare was activated it should have ejected from the pod prior to elimination. Unfortunately it hung-up in the flare pod and there was a massive explosion which caused total breakup of the aircraft and instant death to both occupants. The tragedy resulted in a temporary shutdown of the program. The Sgt. received a funeral with full military honors. A lot of diplomacy took place behind the scenes before the program was reactivated.

A detailed investigation of the accident cause revealed that the flares being used for training at Fort Rucker were of a very early lot which used a paper wax impregnated material for the flare casing, similar to the outer casing of a shotgun shell. Earlier routine inspections of the flare casing revealed that after an extended time, the eliminating material within the flare casing could cause the paper outer casing to distort or swell, resulting when the flare was fired, it could jam in the casing resulting in a detonation of all of the flares while still in the dispenser. A design change incorporating a metal casing had been implemented and all flares of the earlier design were to be withdrawn from service. For whatever reason the flares used at Fort Rucker were of the old design but had not been withdrawn from use. It's noteworthy to mention that the flares we were issued and were using at Buckeburg were also of the old design. Somehow we were just plain lucky.

In mid November, shortly prior to the termination of the German evaluation, the French government, through diplomatic channels, expressed an interest in conducting an evaluation on the OV-1B and OV-1C. Arrangements were made for the team to proceed to a French Air Base at Metz France. We processed through USAAMAC, Sandhofen Germany where all German markings were removed from the aircraft and replaced with the French Tri-color. The probably reason for the German Army not obtaining the aircraft are addressed the "The Mertz Marauders" document. The French evaluation is addressed by separate enclosure.