Ducimus Heritage

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KC-135A on the ramp at LRAFB.

The Good Ole' Tanker Days And Our Fifth Patch

In the mid 1970's, the 189AW was notified that their mission was going to change by a magnitude which the unit had not seen since its inception. Our unit was going to lose its long held mission of tactical and weather reconnaissance thereby leaving Tactical Air Command…and the days of smaller one or two seat fighter style recon aircraft. We would be going to the large multi-engine, and multiple crewmember airframe, the KC-135A aerial refueling tankers. Additionally, there were concerns about transitioning to the tough "no-nonsense" Strategic Air Command, or SAC.

The first crews for the KC-135 were sent to Castle AFB, California in July of 1975. This initial cadre would include pilots, navigators, and boom operators (or boomers). In addition to the initial cadre, the Air Force sent advisors and qualified crew members to help the unit with the conversion to the tanker. The tankers had not arrived to the base yet; therefore, to help the crews still learn their jobs and become proficient on their new platform the cadre of newly qualified crews and the Air Force crews would go up to Blytheville AFB in northeast Arkansas to fly on their KC-135s. Blytheville at the time was a bomber base with B-52Gs and supporting KC-135As. Even though tankers had not yet arrived at LRAFB, newly-qualified crews and Air Force crews were sent to Blytheville to fly on their KC-135s to learn their jobs and become proficient.

The 189AW started to pick up their new tankers from various bases in November of 1975. The KC-135s arrived one or two a month, cumulating in eight total aircraft. These KC-135s came from bases such as Carswell AFB, Texas, Loring AFB, Maine, and McConnell AFB, Kansas.

Our first actual refueling mission took place on November 6, 1975. The mission was to refuel four of our own RF-101C Recon aircraft. It was a ceremonial type mission with some of the commanders flying in the soon to be retired RF-101s which were being refueled by our new crews and new KC-135s. The last of the RF-101s were to leave the unit by the next spring.

By the end of 1975, the initial cadre was helping other crew members become qualified on the new tanker, and the 189AW was ready to take on its new mission. A new challenge for the unit also arose…setting on alert status.

189AW crew scrambling to their KC-135 during an alert.

The first real world alert for the 189AW and its crews occurred on New Year's Eve, 1975. Alert status required one aircraft be moved to the Strategic Air Command alert facility located at the end of the runway on the east side of the base. The crew and

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maintenance support personnel would be required to stay at the alert building just feet away from the fully-fueled and ready to launch tanker. These shifts would last for two full days. While the aircraft sat alert, it belonged to SAC (much like how our aircraft are "chopped" to AFCENT upon arriving in theater for a deployment) and was considered a war time asset as a nuclear deterrent. The aircraft, if launched from an alert, would have had a refueling mission providing fuel to a SAC asset (i.e., a B-52) on its way to drop a nuclear bomb against an enemy target. Thankfully, that mission never came and the US does not normally sit aircraft on nuclear alert anymore.

However, the 189AW crews setting on alert in those days got plenty of practice from SAC. It was normal to have at least one alert Klaxon (the horn that would go off to notify the crew to scramble to the planes) a few times a week. Once they heard the alarm, the aircrew and maintenance personnel had mere moments to get the tanker started and quickly taxi out for an immediate takeoff. The crews would never know if it was really war or just another exercise to test their readiness. They would only know it was real if they were allowed to actually takeoff. Usually they would get engines started or make it to the runway and be told it was just an exercise. The KC-135A had the old J57 engines and to get them started quickly for an alert they would have to use an old starter cartridge. These cartridges were like a big shot gun shell that would blow air into the engine to help get them started faster than using a ground power unit.

In the early 1980's, it was decided that all the Air National Guard KC-135As would get new engines. These engines would be more fuel efficient, have more power, thrust reversers, and would not require the water injection in the engines that the A models had in order to get the heavy tanker off the ground during its take off run. So in January of 1984, our tankers were sent to have their new TF-33 engines put on the planes and the aircraft were re-designated as the KC-135E.

KC-135E on the ramp at LRAFB.

The 189AW performed many missions and exercises other than setting on alert for SAC. They flew numerous daily missions practicing refueling various aircraft from around the region including Fort Smith's F-4C Phantoms, Barksdale's B-52s, and Blytheville's B-52s. The unit participated in numerous TDYs and Operation Red Flag; in addition to many deployments to support the European Tanker Task Force out of Mildenhall England. These missions would help drag fuel thirsty aircraft across the Atlantic on their way going east and west. The KC-135 tanker days were well liked by the crews and by the unit. The 189AW had the KC-135 for a little over ten years before converting to the C-130. The unit had a good safety record with the tankers and they transferred millions of pounds of fuel with no major incidents. The KC-135 was a great plane and a great mission for the 189AW.

Our History patch of the month is the 189AW Wing patch: the Ducimus Badge. This patch was worn on the flight suits of the crews for the RF-101 and the KC-135, and was also worn during the early days of the C-130. The 189AW adopted this emblem

in 1962. The subdued version was worn by unit members on all green fatigues and on the BDU camouflage uniforms. "Ducimus" is Latin for WE LEAD and our motto adorns our C-130s as part of its tail flash.

Special thanks to former Boom Operator, Chief Master Sergeant Richard Green (Ret), for all the help and information for this article.

Written by MSgt Bobby Dugger

The Tale of the RB-57 Canberra

Upon returning from the Korean Conflict in 1952, the 154th Fighter Bomber Squadron's mission was changed to tactical photo reconnaissance and the unit was equipped with RF-51 aircraft, which was a dual purpose aircraft, that is, it was equipped with 50 caliber machine guns in the wings and could drop bombs, and could also be used as a photo reconnaissance aircraft. The reconnaissance mission was limited in that the aircraft had only one camera station. The lone aerial camera could be mounted looking vertically, to the right or left, positions that are called right oblique and left oblique. In the photo to the top right, camera windows can be seen on the lead aircraft.

The unit flew the RF-51 until 1954, when it transitioned to the RF-80A aircraft, a pure photo reccy airplane. Following the RF-80A, in 1957, the 154th transitioned into the RF-84F.

While the RF-84F aircraft was a great photo reccy bird, equipped with high and low altitude cameras which could be installed in any configuration needed to accomplish a multitude of missions, however it had drawbacks that made it unsuited for operation at Adams Field in Little Rock. The aircraft was somewhat under powered and in summer, operations using the 7000 foot runway at Adams constituted marginal safety issues. There just wasn't enough runway. All eighteen RF-84F aircraft were transferred out of Adams late in 1957 and early 1958.

Lacking the availability of a replacement reconnaissance aircraft, the 154th TRS in late 1957 began receiving the B-57B, a tactical bomber aircraft. The Air Force and the National Guard Bureau immediately began conversion of this aircraft to a reccy version. This conversion was accomplished a few aircraft at a time at Warner-Robins AFB, Georgia. The camera installation was a limited position however, that being single vertical oriented K-22 camera that could be installed with a wide angle lens or a narrower angle lens, giving the camera a little more of a telephoto version. This installation was very limited and restricted the squadrons ability to accomplish much in a meaningful way.

The 154th operated the RB-57B during 1958 and most of 1959. In August of 1959, while the unit was at annual field training at Gulfport, Mississippi, nine RB-57A-1 "Heart Throb" aircraft were delivered to the unit. And, shortly thereafter, three RB-57A aircraft, known within the unit as the "straight A", were assigned. Additionally, because the RB-57A and A-1 were single control aircraft, the unit was equipped with two B-57E dual control aircraft for training and check ride purposes.

Camera maintenance technicians upload film in an aerial camera on a RB-57B aircraft.

The original intent of the RB-57A aircraft was for night time photography, with the secondary option for photography during the daytime. During the Korean Conflict it became obvious to the Air Force that the aging RB-26 aircraft was unsuited for the mission. It was not only too slow, it didn't have the capability to operate at high altitude. There was at that time, development of the RB-45 but this wasn't going to be available soon enough to affect the war effort. A few RB-45s did make it to Korea.

The British however, already had in production and in operation, the Canberra, which later was to become the USAF B-57 series aircraft. The DoD negotiated to license the Canberra for production by the Martin Aircraft Corporation in the United States. The first production runs were to build the RB-57A.

The RB-57A flight crew consisted of a pilot and a photo-navigator. Control of the aerial cameras could be accomplished by either the photo-navigator or by the pilot. Additionally, during daytime operation, the aerial cameras could be operated from the nose of the aircraft with the photo-navigator in a prone position looking out of a clear plexiglass nose cone.

The RB-57A's primary mission was for night time photography, with the secondary mission of high altitude daytime photography. Night time illumination was accomplished by flash cartridges for lower altitudes and flash bombs for high altitude imagery. Since navigation at night was rudimentary, a system known as LORAN was used. This system was problematic in that LORAN required navigation transmitters to be set up prior to flights, usually behind enemy lines. The RB-57A did not see service during the Korean Conflict.

The RB-57A-1 "Heart Throb" variant is an interesting story. Long before satellite imagery and the now legendary U-2 began service, the DoD and our country's intelligence services recognized that our ability for high altitude aerial surveillance was severely limited. Certainly, there were USAF surveillance aircraft being flown over Eastern Europe, Soviet Russia and China by older World War II aircraft but little was being gained due to their age and altitude limitations. What the USAF quickly needed was a high altitude, long range spy plane. As a result, ten RB-57As were modified to a very high altitude, daytime operating aerial photography aircraft. These aircraft were re-designated as the RB-57A-1 and code named "Heart Throb".

These ten aircraft were stripped of all components possible to lighten them, including the rotating bomb door and flash cartridge equipment. Also removed was the photo navigator's seat and the LORAN navigation equipment. A precision optical ground viewing scope was added to allow the pilot to accomplish photo navigation by the pilot. Also, to provide a higher operating ceiling for the aircraft, "souped up" J65 engines were employed which permitted operation as a high as 50,000 feet. Special telescopic camera lenses were employed allowing magnified ground images, while a wide angle camera provided coverage of a wide swath of terrain.

In the lower right corner of the photo is the camera control panel which can be raised to afford the pilot better access. In the upper left, the round shaped object is the viewing scope. This scope incorporated a rotatable reticle and other indices which allowed the pilot to make drift adjustments and photo computations.

During its service by the Air Force, the RB-57A-1 "Heart Throb" was, according to reports, used over China, Eastern Europe and Soviet Russia. One Heart Throb and its pilot was lost over China.

Colonel L. O. "Doc" Savage, the Commander of the 154th TRS and later to be the Commander of the 189th TRG, charged this author to come up with a way to add more capability to the RB-57A-1 Heart Throb. Specifically, he wanted to aircraft to have the ability to acquire forward and side looking imagery. After a lot of research, trial and error, and with the help of our unit's airframe metal workers and electricians, as well as others, a compact camera system was locally designed and built as a Class 1 modification, which by definition means that the modification must be undone before transferring the aircraft to another unit.

The cameras used in this installation were U.S. Navy surplus P-2 strike recording cameras. They were installed in the left wing in the unused photo flare door. The pilot's photo controls inside the cockpit were locally designed and fabricated out of readily available materials from normal supply sources or from local commercial sources. The entire nine aircraft modification was accomplished in six months, just in time for the 154th to support a U.S. Army operation in Georgia. This camera installation was used until the 154th lost the RB-57s and gained the RF-101 in 1966.

RB-57A-1 aircraft tail number 464. Barely distinguishable under the wing is the housing for the forward and left looking P-2 cameras.

As previously mentioned, the Heart Throb models did not have the photo navigator's seat. There were many times while the aircraft was assigned to the 154th that long cross flights were made, requiring maintenance personnel. Air Force and National Guard Bureau approval was sought to reinstall the seat. This was approved with the stipulation that the seat would not be ejectable, rather, if bailout was required by the passenger, it would be through the fuselage access hatch. Thankfully, this was never necessary.

The RB-57A aircraft was a well built and one that was fairly easy to maintain. Accidents that did occur were few. While it was not the most versatile recci bird in the Air Force arsenal, it got the job done. Maintenance personnel loved it, and some would say, "…it could be crewed with a screwdriver and a rag".

Written by Colonel Roger Taylor (ret.)

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