The 66th Tactical Reconnaissance Wing in Europe.
By Doug Gordon

From the time when man first went aloft in a balloon to report on enemy movements below, tactical reconnaissance has played a vital part in warfare. We have come a long way since those far off days. Today supersonic aircraft fly with sophisticated cameras and electronic listening devices designed to probe every secret of the enemy's strength, disposition and technology.

Major and minor wars from 1914 to the present day have relied heavily on the skill of pilots and the relative sophistication of their hardware and technicians to collect and process data from the battlefield and it's environs.

Europe has so often been the battlefield and in the two major conflicts the United States (Army) Air Force has played a significant role: from the artillery spotting of the 2nd Balloon Squadron in France in 1918; to the intensive aerial reconnaissance of the 10th Reconnaissance Group during and after Normandy landings of 1944.

That Europe has for so long seen a period of comparative peace is due, not only to the oft quoted nuclear deterrent; but also to the skill, dedication and readiness of the western alliance's conventional forces; not least those who have been responsible for constantly updating all the available data on the enemy's ground forces, and for developing the tactics to be forever one step ahead in conventional terms: the tactical reconnaissance units of the United States Air Force in Europe (USAFE) and their counterparts in NATO.

Before the advent of the Cold War, peacetime reconnaissance in the European theatre had been primarily the responsibility of Strategic Air Command; the emphasis being on reconnaissance for strategic planning. As the possibility of war in Europe grew there grew a need to introduce tactical reconnaissance to support the army and air force in the battlefield arena: in photographing battlefield targets, visual reporting of troop and armour movements and artillery support.

One of the USAFE units in the front line of the Cold War in Europe was the 66th Tactical Reconnaissance Wing (TRW)

On the 19th July 1953, Colonel G.H. Fulcher landed at Sembach in Germany in a Lockheed T-33. He was accompanied by thirty-two Lockheed RF-80As, four T-33s and eighteen Douglas RB-26 Invaders. The 66th TRW had arrived!

The wing had been activated at Shaw AFB, South Carolina, on the 1st January 1953; replacing the 118th TRW the title of which reverted to the Tennessee Air Guard. The 66th had three operational squadrons: the 30th Tactical Reconnaissance Squadron (TRS), Night Photo; and the 302nd and 303rd TRS', Photo Jet. The 30th flew the RB-26, and the Jet Photo squadrons flew the RF-80A. Just prior to the move to Europe, in February 1953, the 302nd and 303rd had relinquished the RF-51 Mustang for the RF-80A-10. Prior to the move to Europe these aircraft were being rotated or changed for the RF-80A-15 models modified

with the J-33A-35 engine and 230 gallon centreline wing tip fuel tanks. There was no ejection seat in these aircraft; but there was an improved canopy emergency removal system; something that had been problematic in the early RF-80s.

The movement from the States to Germany took place without incident for the wing. In fact, apart from the inevitable delays for bad weather at Keflavik, the exercise was the most successful ever accomplished over the Northern Route. The order of flight was the T-33s followed in their turn by the 302nd TRS, the 303rd TRS and the 30th TRS. The 303rd TRS departed Shaw for Maine on the 5th July, 1953. On arrival at Sembach all aircraft were reported to be in commission and operational. In similar fashion the Atlantic voyage of wing personnel was without significant problems. The ocean remained calm and the men and women arrived at Bremerhaven on the USS Leroy Eltings feeling refreshed and eager to settle in to their new homes.

The RF-80A pilots of the 302nd and 303rd TRS' were amongst the most experienced tac recce drivers in the USAF. For example of the 20 pilots assigned to the 303rd TRS, twelve, possibly more, had seen action in Korea. The commander of the squadron, Maj. Jean Woodyard had been one of the three pilots who had flown the first ever combat air refuelling mission into North Korea. Approximately eight of the pilots had flown the RF-80 in combat with the 8th/15th TRS out of K14. Two others had flown RF-51 Mustangs with the 45thTRS and two had flown the LT-6 Mosquitoes. Bob Sweet of the 302nd TRS had flown all three aircraft in Korea.

The 66th was ready to commence operations from Sembach virtually on arrival at the base. On the 22nd July, just three days after arrival, the RF-80s of the 302nd TRS began involvement in an operation requiring continuous oblique coverage of the Rhine River; and a small mosaic of the Munich area. July, August and September were to be particularly successful in mission terms. Relatively fine weather allowed a significant number of missions to be flown. The 85% success rate in Operation Coronet, which commenced on the 23rd July, was remarkable. The three squadrons of the 66th in this exercise flew a total of 327 sorties: 261 day and 66 night. However, the pilots of the 66th found the even reasonable north European weather difficult to contend with at times. On the 16th August 1953, an RF-80 of the 302nd TRS made a forced landing in a field near Augsburg. The pilot had been cleared into marginal weather; but had got lost and had run out of fuel. This accident prompted a grounding of all the wing's aircraft while an intensive training programme was initiated updating all pilots on what to expect from the weather in northern Europe. This turned to be time well spent. For the remainder of the year only one major accident occurred in the 66th TRW; when an RF-80 skidded off the runway at Landstuhl. In this accident, however, pilot error was deemed not to have been the cause.

The RF-80As flown by the 66th were the final versions of this aircraft. Powered by the higher thrust J-33A-35 engine they also carried the 230 gal Fletcher wing tip tanks. Thus were range and altitude performance enhanced. The 302nd aircraft differed from the 303rd in the radios they carried. The 302nd had 15 channel VHF sets and the 303rd the later UHF sets. The latter would normally have been the preferred option; but many areas in Europe did not have the UHF capability and the 303rd was limited in the operations it could undertake. Bob Sweet flew with the 302nd:

"With the appropriate crystals the 302nd TRS could fly to almost anyplace in Europe and North Africa. The 302nd took full advantage and was tasked for some choice missions….The sqdn kept a 3-4 aircraft detachment operating from Vaerlose for most of the Spring and Summer of 1954. Danish AF photo interpreters would plot every photograph so any miscue on a flightline was readily apparent……..During 1955 the 302 sent a detachment to Madrid to photograph the bases being constructed by SAC in Spain"

By late 1954 the 303rd TRS was able to pick up more of the choice missions as more areas became UHF capable. Ed Stoltz, a Korean combat veteran in the RF-80A flew with the 303rd TRS and remembers:

" Bob Sweet never missed an opportunity to dig me about the restrictions placed on UHF equipped aircraft on our arrival in Europe. By late 1954 the numbers of UHF capability had improved across most of Europe and the 303rd joined on the choice mission assignements to Copenhagen and Madrid. Both RF-80 squadrons kept the choice missions going on as long as possible. I saw my first and last bullfight in Madrid. And I visited the Tuborg brewery in Copenhagen on more than one occasion. We also flew the UHF equipped planes to Italy and North Africa"

The 66th TRW was not the only tactical reconnaissance dedicated unit of USAFE at this time. The 10th TRW, based at Toul Rosiere had arrived in the theatre in 1952. Having two similarly equipped wings at their disposal did pose problems for USAFE command: how to avoid mission and operations duplication. In September it was decided to confine the 10th TRW to operations in the allied zones of Germany; and the 66th would work in the allied zones of Austria. As part of this arrangement, on September 2nd, the 30th TRS with it's RB-26s was tasked with the long-term mission of mapping all the British, American and French zones of Austria. The 303rd was requested to undertake a mosaic mapping of the Austrian Alps. This latter mission had to be completed with some urgency before the agreement with the Soviets necessitated the removal of all occupation forces from Austrian soil and resulted in the banning of overflights of that country.

The RB-26s of the 30th TRS were, as we shall see shortly to be scheduled to be replaced by the Martin RB-57. However they were an efficient aircraft quite capable of performing the mission with which they were tasked; which was predominantly night photo. They were equipped with Shoran, Loran, a multiband radio and an 8 channel radio for plane to ground communication. On arrival at Sembach the radios were modified to take sixteen crystals instead of eight. It was in April 1954 that Ron Lang, an electronics technician was sent for training on a new UHF radio that was to be fitted to the RB-26s. The 'scuttle' mechanisms in the responders were interesting.

"The old ones had a small thermite bomb that would explode and melt all the wires and components so the 'enemy would not discover the frequencies being used. The new ones had a small calibre bullet that shot through the tuning mechanism to destroy the frequencies. We had to set the frequencies to the frequency of the day before each mission."

Ron also remembers a particularly traumatic night landing by an RB-26 after a nocturnal mission:

"We were to meet all returning aircraft to note any radio or radar problems. On one occasion an RB-26 returned after a mission to photograph a target, but did not use all the photo bombs. After the pilot left, the crew chief was in the cockpit and for some unknown reason, hit the switch the dropped the remaining bomb onto the tarmac. He thought the bomb rack was empty. The fuel truck was refuelling. There were about six or seven men attending to the plane. It was at night and the photo lab people were removing the cameras and I was about to check the radios. For about twenty or so seconds after the bomb hit the ground there was no movement from anyone, and not a sound. It did not ignite, but we were all very shaky after that."

Late autumn and winter of 1953 brought appalling weather to Northern Europe and a multitude of problems to the tactical units of USAFE. The 66th TRW initiated further intensive flying safety programmes for the pilots; and the mission backlog over this period became acute. The mosaic mapping in Austria was shelved until early spring; and the exercises undertaken in conjunction with the 7th Army were severely compromised in air support terms because the aircraft simply couldn't get off the ground. The problem was particularly for the 30th TRS and their RB-26s. In *Exercise Harvest Moon* commencing on 13th October, the squadron was to fly visual reconnaissance and simulated atomic bomb missions. In the event there was very little participation in this or in *Exercise Power Play* in November, when the 30th had a similar mission. The problems with the Invaders were mainly concerned with severe icing and a review of the cold weather operation of the aircraft was undertaken at this time.

In both of the above exercises the 302nd and 303rd TRS' fared marginally better than the 30th; but all the missions had to be undertaken at low level. Exacerbating the situation for the 66th TRW was the fact that there was no approved instrument let down system at Sembach. Four this reason four RF-80s of the 303rd TRS deployed to Neubiberg for *Operation Mudlark*

The weather played havoc with not only the aircraft but also the cameras. RF-80 cameras had to be rotated to ensure that each spent one day per week in the hot box to thoroughly dry it out. Excessive condensation between the lenses, because of the extremes of temperature had the potential of creating a fungal growth which forced the lenses apart and impaired the cameras effectiveness.

It was at this time that USAFE looked to warmer climes to provide it's pilots with the time to practise their missions intensively without being constantly inconvenienced by the weather. Regular deployments to sunbases in North Africa began for all tactical units. It was also a time when the presence of state of the art Soviet fighters across the iron curtain prompted the US Air Force to commit itself to the re-equipment of its own forces in Europe to counter the threat. In late 1953 it was announced that the 30th TRS was to exchange its RB-26 Invaders for the twin jet Martin RB-57A Canberra. As the year drew to a close pilots from these squadrons were being checked out on their T-33s prior to temporary duty at Shaw AFB to convert to the RB-57A.

For the six months from December 1953 to June 1954 the 66th was unique in that it was the only jet equipped unit in USAFE to remain accident free. 1954 was also the year when,

not only the 30th TRS was to convert to a new aircraft, but the 302nd and 303rd TRS' were scheduled to receive the Republic RF-84F Thunderflash. Pilots from these squadrons attended courses at the Mobile Training detachment (MTD) at Spangdahlem in Germany; headquarters of the 10th TRW, two of whose squadrons were also to convert to the 'Flash.

Operations during 1954 were adversely affected by the weather in the early part; but by Spring the conditions had improved sufficiently to allow a relatively high number of successful missions to be flown. By June the 30th TRS had completed 65% of it's Austrian mission. The 302nd TRS took part in Exercise Blue Danube that involved 28 sorties being flown. The 303rd TRS took part in a 5 day exercise commencing on the 6th May. For the purpose of this mission the squadron deployed to Giebelstadt; and in addition to photographing some 21 army required targets and 15 weather reconnaissance missions; the unit was given the task of taking oblique pin-point photographs of castles and other places of interest in Germany for publicity purposes. The taking of these 'happy snaps', sometimes clandestinely, was something which was a welcome relief from the run of the mill targets.

The maintenance of flying hours was always a high priority for 66th pilots. Bob Sweet:

"Cross country flights were available to anyone who took the trouble to submit a foreign clearance. There were always photo missions or a parts pick up at some obscure Air Base. For those of us who liked to fly it was a wonderful time to be a TAC Recon pilot."

One of the exploits of the 302nd pilots met with disapproval from superiors. Bob Sweet and Bob Kilpatrick decided on an experiment. Bob Sweet recalls:

"There was a long standing debate on how long you could keep an RF-80 airborne. On 19th November, 1954, Bob Kilpatrick and I in a two ship formation stayed airborne for an honest 4:00. We must have flown from the North Sea to Munich a half dozen times and I near froze to death. We also received a glorious ass chewing since we had filed out a local clearance showing 2:45 fuel on board!"

In the latter part of 1954 the weather played havoc with mission rate. In addition to this serviceability of the RF-80s was becoming a problem. The 303rd TRS took part in Exercise West Wind and was reduced to a primary task of visual reconnaissance; in this instance spotting the 280mm cannons used by both the friendly and aggressor forces. In an unofficial competition Captain Edwin D. Stoltz located six cannons of the twelve spotted by the squadron. He remembers the occasion:

"Comments on the Army's 280mm cannons: These were the first designed to fire an atomic shell. Twelve of the 280s were deployed to Europe and as I recall there were six on the friendly and six on the aggressor side during Exercise West Wind. The 66th TRG CO, Col. Harvey Henderson, was flying my wing when the six aggressor weapons were located. What was not reported is that we also located four of the friendly weapons as well. The huge 280mm cannon was very heavy and very difficult for the army to manoeuvre and hide. Off road they left deep ruts and were easy to track across the fields. Although Col. Henderson was impressed by the sightings I should point out that had there been AAA in the area locating the weapons would have been hazardous and far more difficult."

In 1954 the 302nd formed an aerobatic team. The pilots of the team were Capt. Bob Sweet, Lt Russ Tansey, 1st Lt Tim Whitworth and Capt. Robert Kilpatrick. The team, nicknamed the 'Bald Iggles' performed at the Armed Forces day on the 21st May. Although the weather prevented them from going through their rehearsed routine the display was nonetheless deemed a success.

On the 30th November, 1954 the first of the RB-57A aircraft arrived at Sembach for the 30th TRS. Early 1955 saw the RB-57 and RF-84 MTDs set up at the base; usefully, because, yet again the weather had severely restricted flying; and the opportunity for ground training of all kinds was a welcome one. March produced uncharacteristically fine weather and the 66th squadrons flew a high number of missions. The 302nd and 303rd TRS' broke all previous records for missions flown.

The RB-57s continued throughout 1955. The first accident in the wing concerning these aircraft occurred on the 9th February, 1955 when a 30th TRS' aircraft suffered considerable damage on taking off from Sembach. It slid along the runway to a long stop. The pilot had raised the landing gear before the aircraft had become completely airborne! Ron Lang was a radio and radar technician working on the RB-26s at the time and recalls the incident. Prior to the crash the pilot had had some difficulties taxiing!

"He taxied so much that the brakes had to be replaced. When they were most of the personnel on the flight line lined up to watch him take off. Of course to start the plane, black powder canisters were inserted into the nacelles of the engines, ignited and started the jet engines with much black smoke streaming from the rear. He taxied to the runway, lined up for take off, pushed open the throttles and roared down the runway. It was said that he had raised the landing gear handle to the up position so that when the plane reached flying speed and lifted off the runway, it would allow the landing gear to immediately fold up into the plane for a show off hot take off. Unfortunately, the trim tabs were in the 'down' position; the plane immediately belly landed because the landing gear was retracted. The plane suffered damage to the undercarriage and ruined the special paint that was supposed to be somewhat radar proof."

In June, 1955 there occurred one of the largest exercises ever staged by the NATO powers. *Exercise Carte Blanche* took place between the 20th and the 27th June and was designed to test the latest concepts in dispersal, tactical air control and execution of alert plans in the event of an atomic war. For the purposes of this exercise the 12th Air Force and the 4th Allied Tactical Air Force (ATAF)of NATO were pitted against the forces of the 2nd ATAF. The 66th TRW was tasked with providing reconnaissance on behalf of the former antagonist.

Condition Alpha was called on the 20th June. The simulated posturing and threats were enough to put all squadrons on immediate alert. The 303rd TRS deployed to Echterdingen near Stuttgart; while the 302nd remained at Sembach. In these initial days the function of all these units was picket duty. The RB-26s and RF-80s patrolled an arbitrary bomb line and reported all aircraft crossing that line. In the early morning of 23rd June *Condition Coco* was declared. Hostilities had broken out at precisely 0450 hours! Within minutes the

first reconnaissance missions were being flown. Throughout the exercise the squadrons of the 66th flew a total of 613 missions. The 303rd flew 242 of these; 94 photo and 148 visual.

The benefits of this exercise in terms of experience were profound in tactical terms. One of the most significant of these underlined just how much needed was the eagerly awaited RF-84 by the RF-80 squadrons. Throughout Carte Blanche the RF-80s were frequently and fatally intercepted by the Venoms and Meteors of the 2nd ATAF; and, on the pilots own admission, some fourteen of their aircraft could have been shot down. The intercepting flights usually attacked in pairs or fours; and the single ship reconnaissance flights were clearly doomed in the face of such opposition. Also, because the RF-80s often had to work at a considerable distance from home, significant fuel for any significant evasive manoeuvring was not available. Running for home was often the only tactic available to the hard pressed pilot, with its attendant and extremely risky consequences. The practice of sending unarmed reconnaissance aircraft to photograph or visually report on the status of enemy airfields was called into question as a result of the experiences of *Carte Blanche.* Ordering a pilot to fly over or alongside a heavily defended airfield was tantamount to ordering his death.

As a result of the exercise the 303rd TRS made certain recommendations regarding the RF-80. In light of the fact that the arrival of the RF-84F was imminent these may sound superfluous; but it must remembered that at this time of high tension the squadrons may have had to go to war in their Shooting Stars. The RF-80, it was recommended, should have a total combat radius of 400 miles. This would guarantee sufficient fuel reserves to enable a reasonable degree of evasive action to be taken in the event of interception. The reconnaissance should always be taken in pairs, thus enabling a satisfactory of sky searching for enemy aircraft to be accomplished by both pilots, each looking out for the other. Finally it was considered vitally necessary for some aggressive training in evasion tactics to take place with pilots as a matter of urgency.

Significantly, in the event of a real war having been fought the 303rd would have been in no position to make any recommendations. On the 24th June, enemy reconnaissance flew over Echterdingen and with their departure came the likelihood of an atomic strike. The squadron commander immediately dispatched a message to HQ, 66th TRW announcing his intention to move the entire squadron to an autobahn strip south of Stuttgart. In a simulated exercise the aircraft would fly along the autobahn until a suitable dispersal site was found; and the vehicles would follow by driving along the route until they found the aircraft. According to the timing the last RF-80 would have been airborne when the expected A Bomb struck. However, the umpires, while congratulating the ingenuity of the commander, declared the squadron annihilated!

Other exercises later in the year intensified he frustrations felt by the RF-80 squadrons concerning the shortcomings of their aircraft. *Beware* in September was an exercise testing the air defences of the United Kingdom. The RF-80s were hopelessly outclassed by the defending Royal Air force interceptors which wreaked havoc amongst the aging Photo jets.

The long awaited RF-84F Thunderflash began to arrive at Sembach from August, 1955 onwards. One pilot from each of the squadrons was sent to Shaw AFB to the 363rd TRW for checkout on the aircraft and they would be the IPs (Instructor Pilots) for their

respective squadrons on their return. Bob Sweet was the 302nd TRS pilot and Ed Stoltz was the 303rd. They both spent most of March and the beginning of April flying the RF-84F. Back at Sembach in April both Bob and Ed were back flying the RF-80 when the RF-84 delivery dates began to slip. On June 16th they were both sent to the England to maintain currency by flying the F-84F. By the end of that year the 66th TRW had received four RF-84Fs; two for the 303rd TRS and two for the 302nd. The 10th TRW at Spangdahlem was also converting two of its squadrons to the RF-84 at this time. Conversion to the RB-57A was moving slightly faster. The 30th TRS had fully converted to the type by the end of 1955. In addition to receiving the RB-57A the 30th also received the B-57C dual trainer.

Of the new aircraft only the RB-57 was to see operational flying during 1955. The aircraft took part in *Operation Fox Paw* from the 1st to the 4th October acquitting themselves well in the night reconnaissance missions. The RF-84 pilots contented themselves with transition sorties of familiarisation, navigation and instrument training flights.

On the 11th September the transition programme for the 302nd TRS suffered a serious setback when one of two RF-84s, piloted by squadron CO. Major Aloysius P. McHugh suffered a loss of power at height. With exemplary skill major McHugh succeeded in recovering the aircraft and made a dead stick landing at Landstuhl. Bob Sweet was riding chase in an RF-80:

".....it was tough just keeping visual contact. However the traffic pattern and landing were the main events to monitor. At around 15k Mac called out that he had flamed out. I close up and we went through three air start attempts with no response. Mac indicated he was going to eject. We were at a point which would be a high downwind leg forLandstuhl AB. I told him to turn base leg and Landstuhl tower, aware of the emergency, cleared him to land either direction but downwind was the only option left. I made sure the airspeed stayed up so the '84 wouldn't sink from under him. The gear came down on short final and he touched down just short of the runway barrier, going through it the wrong way. The '84 sliced through the tape and roll out was just great until the nose came down and the nose gear folded. It had not extended quite all the way."

As 1956 dawned the 30th TRS was experiencing the first of many problems with the RB-57. On the 29th January all these aircraft were grounded due to a faulty jack screw in the elevator trim control. This grounding lasted until 20th February. The squadron was on detachment to Wheelus in Libya at the time engaged on *Operation Sunflash.* They had to be relieved by the 303rd TRS who sent out four RF-80s to complete the mission which involved supporting guided missile squadrons and reporting on weather, range clearance and photographing missile impact. 99 missions were flown between the 31st January and the 24th March. Later in the year the RB-57s were grounded again. This grounding lasted for two months and was caused by faulty actuators, which had to be replaced.

In September,1956, *Exercise Whipsaw* took place. This was a major NATO exercise similar in purpose to Carte Blanche: to test practise and evaluate current plans for the employment of nuclear weapons and the allied forces of Northern Europe. Whipsaw took place between the 25th and the 28th of the month. All squadrons took part. The principle mission profile was to fly pre-strike, post-strike and weather reconnaissance missions. Poor weather took it's toll of many of the missions; but in spite of this the 66th notched up

a total of118 sorties. The 30th TRS with it's RB-57s deployed to Echterdingen for this exercise, which was, for them as much a test of their mobility capabilities as their mission capability. During the four days of the exercise the squadron flew 33 bombing sorties against 54 targets all of which were successfully hit. Approximately a third of the missions were flown at night. The only problem that arose for the 30th TRS was the means of transport for their deployment. At the last minute air transport was made available for the move in the form of four C-123s and one C-124 of the 322nd Air Division; and two C-47s of the 66th Wing Flight. Contrary to expectations this provision actually slowed up the deployment; and one of the main recommendations of the 30th following the exercise was for such moves would be more efficiently managed if they took place wholly by road. Following the problems that had been encountered with the RB-57s the success of *Whipsaw* was a boost for the 30th TRS; but, in any event, the days of the aircraft were numbered as the Douglas RB-66 began to go into production; arriving in the European theatre during late 1956.

October, 1956 saw the first of what was to become a regular annual event for the 66th TRW. The *Royal Flush* reconnaissance competitions were inaugurated. *Royal Flush* was a NATO exercise which brought together recce units from both the 2nd Allied tactical Air Force (ATAF) and the 4th ATAF. The 1956 event was staged at Lahr in Germany from the 17th to the 19th October. USAFE was represented by the 30th and the 303rd Tactical Reconnaissance Squadrons flying for the 4th ATAF. The 303rd TRS' RF-84F flown by 1st Lt. John Robertson won the low level competition; and 1st Lt. Ronald A. Krzan from the 30th TRS came second in the high level competition flying a RB-57A. The 4th ATAF was the overall winner. John Robertson, "Robbie" was later shot down over Vietnam flying an F-4C and remains missing in action. He is remembered affectionately by Paul Hodges who flew alongside him in the 303rd:

"He was a hotshot who I loved to fly with since we always got into a rat race and were pretty even. He was also an excellent recce pilot."

On the 1st January, 1957 a fourth squadron joined the 66th TRW. Flying the RB-45C Tornado, the 19th TRS was resident in the United Kingdom; where it was attached to the 47th Bombardment Wing. The squadron did not move to Sembach, remaining based at Sculthorpe. This presented many problems to the 66th HQ; not least of which was communications. Direct radio contact was invariably impaired by static and weak signals. This severely upset operations of the 66th at this time.

At the time of it's attachment the 19th TRS had 12 RB-45s assigned; but on the 1st February, three Douglas RB-66Bs arrived. By the 31st March 12 of these aircraft had been received and the squadron had transferred 5 of it's Tornadoes. Unfortunately, disaster struck the 19th early in the career of the RB-66 when aircraft 54-420 aborted take off, left the runway and sheered the nose wheel. Extensive damage occurred to the whole nose section of the aircraft; and it had to spend some time with the 47th Field maintenance Squadron for repairs. Corrosion was also found on several of the RB-66s and an extensive 'wad poling' programme was initiated.

At the same time as the 19th was converting to the RB-66 so also was the 30th at Sembach. Prospective pilots had to complete 15 hours on the Sembach simulator in preparation for the aircraft, which were due to arrive in the summer. The first RB-66 to arrive at Sembach

was , in fact, a 19th TRS machine on the 26th February, 1957. The purpose of this flight was to test out the Sembach runway for RB-66 operations. There was some doubt about whether or not the runway was long enough. In the event the 30th was sent to Landstuhl to transition because of that airfields longer runways and overruns. An additional factor, if one was needed, was that the heat wave experienced in the summer of 1957 buckled Sembach's runway. Not only the 30th TRS, but also the 302nd and 303rd were deployed elsewhere: the 303rd to Landstuhl and the 302nd to Cazeaux in France.

Cazeaux was a regular venue for all tactical day squadrons of the USAFE. The range was the principle one used for gunnery practise. The 302nd and 303rd TRS had been in December, 1956 and repeated the exercise in 1957. All units underwent a basic familiarisation course in ground strafing against mesh nylon targets. The RF-84F was the last recce plane to be fitted with internal guns; ostensibly for the purposes of target designation for fighters or artillery. The reasons for abandoning them in later aircraft is conjectured by Paul Hodges:

"……later arguments in the air force went something like, if you put guns in a recce aircraft the pilot is going to look for something to shoot rather than take pictures, guns being more fun than cameras. (Quite true) In addition, it costs more, complicates training, increases aircraft weight, and recce aircraft are supposed to be light, fast and dedicated. So who needs guns?"

In January, 1957 the 30th TRS while still equipped with the RB-57A were heavily involved in *Operation Sunrise.* This operation, in support of the 11th Tactical Missile Squadron, took place in Libya; the RB-57s being based at Wheelus. The 11th TMS was involved in target practise. The job of the 30th Pilots was to find the missiles after they had been fired and photograph them. The target was a large **T** in the desert. Later in the year, in November the 30th was to repeat this exercise using its newly acquired RB-66s and in support of the 701st TMS in *Operation Blast Off.* At this time the squadron also took advantage of Wheelus' long runways and the good weather in the region, to transition more pilots onto the new aircraft. The 19th had taken four of its RB-66s to Wheelus in July in support of the 701st TMS in *Operation Proof Test*.

The second *Royal Flush* took place in May, 1957 at RAF Laarbruch in Germany.This year no prizes were taken by the 66th TRW represented by the RF-84F and the RB-57. The wing reported that the probable reason for this was he slower nature of their machines when compared to their competitors. Bearing in mind that the other competitors included RAF Canberras and Swifts and RF-84s of other NATO powers this was stretching the bounds of incredulity too far.

During November, 1957 the 302nd TRS was struck by disaster when, on the 13th of that month , whilst flying formation over Manston in the United Kingdom; two of their RF-84s collided. Unfortunately both 1st Lt.Orville O. Buck Jr and 1st Lt. James R. Bulgar were declared missing, presumed dead, when no trace of them was found. Similar incidences in the 303rd TRS and a rigorous formation flying training programme was initiated. Selected pilots were expected to fly a satisfactory flight in a T-33 before returning to their respective squadrons as instructors. Each squadron pilot was required to complete six formation flights before requirements were satisfied; in addition to attending numerous lectures on flight safety.

Routine missions for the RF-84F were similar to those flown in the RF-80s. Generating flying hours was all important as were the exercises designed to maintain and improve recce proficiency. Paul Hodges:

"We were always in competition with the 302nd to generate flying time and our ops officer, Jack Coghlan, was almost infallible in second guessing the weather forecaster and getting us aloft often when the official forecast was horrible.....Great experience for guys like me, newbys who got a lot of confidence quickly without hanging onto the wing of a more experience flight lead as in the fighter business. Training missions at low altitude used all the cameras in the aircraft to acquire the targets, and often required the most difficult mission of all, the mosaic.....Object is to cover a plot of ground at a certain scale, overlapping the photos at sixty per cent longitudinally and forty per cent laterally so they can be put together as one big mosaic without much distortion. It was a skill that was hard to acquire. By comparison, the acquisition of pinpoint targets like a bridge, commo site or road intersection was a piece of cake."

As 1957 progressed USAFE HQ decided to reorganise its tactical reconnaissance assets. Both the 66th and the 10th TRWs were flying dissimilar types of aircraft: the RF-84F and the RB-66. This was counterproductive not only in terms of operational efficiency; but also in terms of maintenance. On the 6th December, 1957 HQ, USAFE issued General Order 88 which assigned the 32nd and 38th TRS' both resident at Phalsbourg in France to the 66th TRW; and the 19th and 30th TRS to the 10th TRW. Movement Order 57-9 ordered the 30th TRS to Spangdahlem; while the 19th TRS was to remain at Sculthorpe. Thus the 66th became a four squadron RF-84F wing.

The RF-84F was not a popular aircraft with the pilots who flew in it.. Although a robust machine, capable of taking a lot of punishment, it was nonetheless underpowered and had many teething problems requiring various mods throughout it's short career. One of the huge disadvantages requiring modification was the inability of the early aircraft to fly in clouds due to the shrinkage of the shroud ring around the compressor blades in moist air conditions! Scotty Schoolfield flew the RF-84 at both Shaw AFB and at Phalsbourg.

"The fix for this problem was to shave the compressor blades to provide adequate clearance. Unfortunately this fix further reduced the engine thrust of an already underpowered flying machine. There were still hydraulic problems and long take off rolls. On one very hot July day, at Kirkland AFB in Albequerque, N.M. (field elevation – 4000') I experienced a TO roll of approximately 11,000'. That was dicey."

The Thunderflash could never have served in the European theatre if the 'visible moisture' problem had not been sorted. Scotty recalls his first flight from Phalsbourg with the aircraft when he joined the 32nd TRS:

"In the interim I became reaquainted with the old Super Hog. After the breathtaking performance of the a/c I became keenly aware of why the F-84 acquired this nickname. My local area checkout was conducted entirely under IFR conditions with each checkpoint being identified by the swinging of the pointer on the 25 watt low frequency radio. My steel trap mind told me this type of flying was to be the norm for the next three years., so I had better be prepared."

The flying qualities of the 'Flash are further recalled by Paul Hodges:

"Its thrust to weight ratio left a lot to be desired.....It was an easy airplane to fly, although frustrating when the Canadians in their Mark V1 Sabres would bounce us from 45,000' perch positions while we're struggling to stay at 35,000' on a cross country flight (happened constantly- the Canucks were at Gros Tenquin, Zweibrucken and Marville, all near the routes we always took to go south from Sembach. They waited for the turkeys to appear, then had target practice for 15 minutes while we sat there with clenched teeth...just trying to remain airborne at that altitude).

In January of 1958 the announcement was made that the 32nd and 38th TRS were to receive the McDonnell RF-101C Voodoo. The 66th HQ and the 302nd and 303rd squadrons were to move to Laon where they would displace the 38th Bombardment Wing.

Early in 1958 the conscious decision was made to utilise the North African base of Nouasseur, Morocco to its limits in detachments of USAFE aircraft. Indeed it became debatable whether there was more time spent at the North African base than at home. The troublesome winter weather had really played such havoc with the training schedules. At Nouasseur all training missions were accomplished as required. The very favourable North African weather provided the ideal environment in which new pilots could be transitioned on to the squadron aircraft in the minimum of time. The 38th TRS, later in the year, used Nouasseur to transition all its pilots onto the RF-101C.

The 302nd TRS deployed eight RF-84s and fifteen pilots to Nouasseur for six weeks on the 16th January. The reconnaissance training undertaken on this detachment was even higher than anticipated. Specific tasks included low level navigation, all phases of photography. Instrument flying, formation, aerobatic and evasive tactics and night flying. Every air station and every port in Morocco was photographed by the 302nd at this time. The squadron returned to Sembach on the 27th February. During March and April the 303rd TRS spent 30 days in Morocco overlapping with the 38th TRS which deployed there for 45 days on the 1st march. The 32nd detached in January and June.

However, there were problems. Although able to accomplish a very efficient mission rate the North European weather did not entirely relinquish it's influence over events. Bad weather at Phalsbourg and Sembach often interfered with the inspection cycle when the RF-84s were routinely returned to their parent bases. Bad weather regularly prevented the aircraft from gaining access to the base, and, furthermore, often delayed their return to Nouasseur. When the 303rd returned to Sembach from one sojourn in April they were prevented from making a grand entrance by a heavy fall of snow at the German base. The RF-84s were compelled to divert to Phalsbourg. The pilots left their aircraft at this base and were smuggled to Sembach to celebrate their return over the weekend; returning to Phalsbourg to retrieve their Thunderflashes on the Monday. Deployments to Morocco from Phalsbourg refuelled at Zaragoza in Spain; whereas those from Sembach paused at Chateauroux in France.

In July 1958, following the deactivation of the 38th Bombardment Wing , the 66th HQ and the 302nd and 303rd TRS' moved from Sembach to Laon in France. This move was in accordance with USAFEs plan to realign the posture of various bases in anticipation of

aircraft conversion. The 66th was to convert to the RF-101 Voodoo. Paul Hodges was involved in this move:

"The runway at Sembach was designed by a Roller Coaster engineer, barely okay for the RF-84, absolutely unsuitable for the higher performance Voodoo."

The two Phalsbourg squadrons: the 32nd and 38th were to remain at their French base for he time being. The RF-101C Mobile Training Detachment had been resident at Phalsbourg since March and training was already well under way.

Considerable construction was necessary at Laon before and during the transition phase; in particular the preparation of runway overuns. In August and September respectively the 302nd and 303rd TRS' moved from Sembach to their new base. Just prior to the move, in a public relations exercise, the 302nd engaged in some large scale oblique photo coverage of all towns and cities within a 30 mile radius of Laon. The processed photos were presented to the various town and city officials as a means of introducing the newcomers to the community.

At the very time the 66th was moving house there occurred an incident which prompted a sustained alert status for all the tactical units of USAFE. What has become known as the Lebanon Crisis affected the US Armed Forces when the Lebanese government requested the assistance of the United States because of a political crisis in the country. On the 15th July President Eisenhower put all the US Armed Forces on the alert. Operation Post card was put into effect and the 66th was put on standby to deploy to the Lebanon and remain there until relieved by units from the USA. In the event, the deployment never took place. The 18th TRS from Shaw AFB did in fact deploy to Turkey at this time for 99 days in support of the US build up in the area.

From the 24th August to the 12th September Spangdahlem hosted the third *Royal Flush* event. The 66th again took part, flying for the 4th ATAF and flying the RF-84. Both the French and the Belgians flew the RF-84 and the RAF, the Swift and the Canberra. The latter took the high level trophy and the French RF-84, the low level. Paul Routhier recalls the event for a different reason:

"*Since I had most time on the Voodoo, Lt Col. Houser C. Wilson who was commanding the Reconnaissance Center (ROC) asked me to demonstrate the performance of the Voodoo....I was of course extremely delighted to perform the first European Aerial demonstration."*

By the end of 1958 the 32nd TRS had completed transition to the RF-101C and conversion for the 38th TRS was well under way. The programme , which took place at Nouasseur, proceeded very smoothly; mainly because both squadrons collaborated to draft the training schedule. Neither squadron experienced an accident during the transition. RF-101 aircraft were delivered direct to Morocco, where a technical team from McDonnell were among the maintenance personnel awaiting them. One of the problems experienced was that, when they arrived at Nouasseur, the Voodoos had only 25hours remaining before having to enter the inspection schedule. An intensive work programme on the 50 hour cycle and some unscheduled maintenance ensured that the problem did not adversely affect what turned out to be a highly successful and effective transition for both the squadrons.

1959 was heralded by the not unexpected news that the 302nd and 303rd TRS were to be deactivated and their places in the 66th taken by the 17th and 18th TRS from Shaw AFB. These two units arrived at Laon in May, 1959, with the 302nd and 303rd officially deactivated on the 20th June. All the RF-84s were ferried to the IRAN facility at Naples for eventual distribution to NATO forces. Many of the pilots of both these squadrons were transferred to the new Voodoo squadrons; converting at Nouasseur. The passage of the 17th from the USA, code named *Fox Able 89* was a considerable contrast to the long and time consuming route taken by the RF-80s and RB-26s when the 66th had originally deployed in 1953. The RF-101s flew direct from Shaw refuelling en route. There was a minor hiccup when one flight of eight aircraft was prevented from making a refuelling rendezvous because of a thunderstorm and had to divert to Bermuda. The 18th TRS' passage was more fraught. Two of the Voodoos collided over the Atlantic and were lost. The pilots, Paul Carrodus and Lee Skinner ejected safely and were picked up from the water. Paul Carrodus recalls that fateful day:

"Lt. H. Lee Skinner was the flight leader and we were to join up with a flight of eight from Shaw passing over head as were took the runway. Normal procedure was to take off in after burner until we cleaned up the aircraft. We stayed in afterburner until we caught Capt Stavast and his flight at approximately 35,000 feet. Needless to say we consumed a lot of fuel and were ready for the KC-135. After the refueling John said "Spread it out and eat your lunch". I was on Lee's left wing about 4000' out and checking out my lunch of yesterday's candy bar and a soft drink. I removed my oxygen mask to eat and drink and the next thing I saw was the rear end of the biggest jet exhaust with my acft tucked under the right side of his fuselage. speculation is I may have momentarily passed out. The nose of my aircraft contacted his right wing and folded back towards my canopy. We heard Stavast broadcast 'May Day'. I ejected at 35,000 feet and my parachute opened since the low altitude bail out lanyard had not been disconnected. I was unconscious after the ejection and regained consciousness in a cold white mist with a loud ringing noise in my ears……..I evaluated my situation the best I could and said to my self, " you have a survival kit with a life raft, water, fishing equipment, first aid , etc." We were told to release our survival kit before we landed so as to take any guess work out of our distance from the ground or water. I activated my survival pack at a fairly high altitude and held on to the strap. We were told the survival kit hung down 20 feet and was attached to our parachute harness. Mine hung down about 20, 000 feet as the stitching came loose when I let go of strap. As I watched my raft floating downward, I decided I had to go after it as it was essential to my survival. We had been told how to 'slip' our 'chute to manoeuvre and descend rapidly. My 'chute promptly collapsed into my arms. I threw it up into air and it opened with a loud pop. Still seeing the raft my next thought was to get out of the harness and dive after the raft. When the raft became the size of a quarter, the thought of a high dive left my mind. as I entered the water my bladder let go and my parachute fell on me head and started to pull me under the water. I activated my life jacket (LP-2) which had a comma shaped pillow under each arm. The left flotation device just fell out since the CO2 cartridge failed to inflate it. The right side worked

fine. Lee's situation was more normal as his 'chute opened at 14,000 per tech order, but he kept getting hit in the head by the seat which snagged on his parachute harness. He saved his raft and lit flares when he heard an aircraft fly over head. Now Lee was about 5 miles upwind of me and his smoke drifted over me at the same time a WB-50 from North Africa on WX patrol appeared on the scene. Major Swanson the WB-50 pilot circled the smoke and vectored the US Coast Guard cutter 'Mendota' (ocean station echo) to me."

The fact that most of their survival gear had malfunctioned prompted the 66th to run a comprehensive check on all such equipment. In addition a series of water survival courses was initiated in which all aircrew were expected to take part. The aptly named Jayne Mansfield water wings were among the suspect items.

There were problems with the RF-101s in those early days. From the 15th to the 28th August, 1959 all aircraft were grounded due to hydraulic problems. In the first six months of the year the RF-101s were involved in three major accidents in addition to the two that were in transit from Shaw. All three accidents occurred in the 32nd TRS. On the 22nd January an RF-101C touching down at Phalsbourg with the nose wheel raised to gain aerodynamic braking, lost the main gear wheel and, crabbing violently to the left, came to a stop some 210 feet from the side of the runway. No pilot injuries were sustained as a result of this accident the cause of which was deemed to be maintenance error; the locking mechanism being improperly installed on the left axle. It is of note that the concept of aerodynamic braking was very new at this time and not encouraged. Although it was not a contributory factor in this accident; certainly a number of minor incidents did occur with pilots dragging the afterburner cans along the runway in their efforts to master the skill.

The other accidents in the 32nd occurred on the 23rd February and the 13th April. In the February hydraulic failure was the cause when the main landing gear failed to come down. The pilot ejected safely. The accident on the 13th April unfortunately resulted in the death of the pilot, Bob High. The aircraft nose dived shortly after take off and burst into flames. Maintenance error was again the cause. A nut was found to be missing from the bolt connecting the actuator to the stabilator.

Paul Routhier was accident investigating officer with the 66th and recounts the details of a spectacular accident that occurred at Torrejon in 1959. What is significant about Paul's painstaking investigation of this accident is the conclusions he came to:

"First there was another spectacular Accident at Torrejon Spain, involving a flight of four RF-101s. The practice at the time was to have a ten second interval between the first element #1 and #2 and the second element #3 and #4 for the take off roll. In this particular accident, Walt Ray was leading the second element using the standard 10 second separation interval between flights. Almost immediately after lifting off, he experienced an abrupt nose-up which he could not control. Cal Adolphe was flying his wing and reported that he could not raise his nose to match Walt's. He said he pushed forward on the stick and continued straight ahead while Walt's aircraft went out of control and crashed into the runway. As I recall in the accident report, Walt did not achieve over 50 feet of altitude. It was truly a miracle that Walt survived that crash and of course

important from the aspect that I had actual pilot testimony regarding what had occured. I had discussed the whole matter with Walt and Cal on many occasions and was totally convinced that he did not inadvertently pull the aircraft out of control with back-stick pressure. This lead me to investigate other factors that could have caused the accident. I made an indepth study of the problems occurring with civilian and military airlines encountering the phenomena of wing tip vortexes. Little was known about wingtip vortexes in that time frame. After acquiring studies from the wind tunnel test studies on the F-100 and other civilian aircraft contractor studies, I learned that the phenomena of wing tip vortexes could generate narrow turbulent airflow bands (with an order of magnitude of 400 knots) behind aircraft flying at near takeoff speeds and high angles of attack. From these studies I concluded that these high velocity tornado like airflow bands was the factor that caused the control problem Walt experienced. I submitted an accident report charging the primary cause of the accident to be wing tip vortexes generated by the leading element #1 and #2 aircraft, which Walt Ray flew into, but Cal Adolphe missed because of his position. This turned out the be a rather famous investigation with which most RF-101 pilots are familiar. As you might imagine I did not complete the investigation in the standard two week period, it took two months. Following that accident, the take off interval between flights was increased to 30 seconds. This really made it tough on keeping flights of four together."

However, in spite of the problems, the 66th succeeded in maintaining a high mission rate; the weather not being so much of debilitating problem to the Voodoos. The wing received the accolade of the 7th Army for it's commitment to Exercise Free Play from the 2nd to the 7th February, 1959 when sixteen day reconnaissance missions were flown under very adverse weather conditions. The pilots of the 66th prided themselves on their low level, high speed recce techniques. One such mission requiring this skill was a request from Commander in Chief USAFE (CINCUSAFE) for photo coverage of the Suippes gunnery range. The first photo had to be taken ten miles from the target at a height of 1,500 feet. At intervals of a mile thereafter and with ever decreasing altitude the RF-101s had to take further photos. Within two miles from the target the aircraft were down to 500 feet. The purpose of this exercise was to aid in orientation training for tactical combat crews using the range.

Royal Flush 1V took place at Eindhoven in the Netherlands from the 2nd to the 4th June, 1959. The 66th entered an RF-101C for the low level part of the competition for the first time. Both the 32nd and 38th TRS' were involved and enjoyed marked success in the event. Dick Vaughters flew in the competition for the 32nd TRS:

"I was lucky enough to participate in that one. We at least scared everyone and didn't score too badly. A little known fact about the competition was that those airplanes weren't exactly 'stock'. The Pratt and Whitney J-57-P13 ran at 92-93% RPM (That was all the power the Air Force had paid for and that was all they got) Our birds were tuned to run at 102% RPM and 715 Degrees Centigrade. My Voodoo would indicate an honest 645 knots on the deck. Naturally fuel consumption was sky-high and we would arrive back at Eindhoven with little but fumes left."

In July, 1959 the 32nd and 38th TRS' were amalgamated into one unit sharing maintenance, Intelligence and photo lab facilities; while retaining separate identities and squadron commander. The composite squadron maintained a cell of three aircraft at Nouasseur from the 1st November, 1959 for the purpose of keeping a constant combat ready posture during the European winter.

Throughout 1960 the 32nd and 38th continued to operate as a single unit. In October the two squadrons moved to Toul from Phalsbourg under *Operation Young Gal*. It was a sign of the developing times that the base was ill equipped to receive the Voodoos and much preparatory work had to be done prior to the move to update the base's facilities. Even the housing as inadequate for some time and many of the personnel were obliged to commute from Phalsbourg daily; not a great distance but, nonetheless inconvenient. At Toul the operational demands on the two squadrons was effectively doubled; but because of the administrative and organisational success of the amalgamation, they chose to retain this instead of reverting to independent unit status.

Earlier in the year, in April, the 17th and 18th squadrons had temporarily detached to Toul when the runway at Laon was closed for resurfacing. The codename for this detachment was *Dim View.* Whether this somewhat unusual name reflected the attitude of the personnel to the prospect of spending a long time at Toul or was simply a refection of the feeling regarding the operation as a whole is not clear! While based at Toul the 18thTRS lost two pilots when Voodoos 56-0076 and 56-0077 collided during a night formation take off. Captain Park H. Baker and 1st Lt Jimmy P. Duren were killed instantly when their aircraft crashed and burned. This was an accident which was witnessed by many of their fellow pilots awaiting takeoff on the runway. The squadron was commencing a mass night intruder mission to test the air defences of the United Kingdom.

Royal Flush V took place at Bremgarten, Germany, a French base with Mysteres. Paul Hodges flew the '101 for the 66th TRW and recalls the event:

"The French team was flying the RF-84 ,we were in the Voodoo, Brits in a little airplane whose name I can't remember, Italians in the 84. The competition was replete with sometimes scandalous behaviour by teams in an effort to win, and this excluded no one. For example, one mission flown by a French 84 was at low altitude, got all the targets and made the route in a time that our team captain calculated had to be Mach 1.2, not easily done in an aircraft that was supersonic only going straight down at high altitude.....As I remember the French won."

The 18th TRS was involved in two desert operations during 1960. When the Agadir earthquake devastated Morocco; aircraft were dispatched to photograph the stricken areas. Many of these photos were used in the fund raising for financial and medical aid and found their way onto the front pages of national newspapers in Europe and the United States. On the 6th April four aircraft of the squadron were dispatched to Wheelus to photograph and map approximately 8000 square miles of the Libyan desert. The search had been instigated for the ill fated survivors of the World War 2 B-24 *Lady B. Good* which had crashed in that area of desert. The difficult and sensitive mission was completed on the 28th April.

When the Berlin Crisis of 1961 blew up the Voodoos of the 66th were given a specific role. George Cowgill who was with the 66th detachment at Spangdahlem at the time, though he didn't fly any of the missions, recalls:

"The 66th sent 8 RF-101s to Spangdahlem, Germany..... flew single ship sorties to Berlin. Flew in one corridor, turned over West Berlin and came out another corridor. On most missions MiGs joined up and flew formation with our single RF-101 and tried to push them out of the corridor into East German airspace. Needless to say, it was exciting."

Regular detachments to North Africa were very much still part of the 66th's mission schedule. Don Karges who flew with the 38th TRS remembers these excursions with affection:

"Some days we flew sightseeing missions over the desert taking pictures of anything that looked alive.....These were carefree days- no restrictions- very low and very fast- bad maps and a lot of long distance stuff."

In fact those carefree days were shortly to be taking a back seat. In August, 1962 the Cuban missile crisis placed every tactical unit in USAFE on alert. The nuclear fighter bombers were armed and ready to go; no less the tac recce 66th TRW. 50% of the pilots sat alert in their cockpits on first light to last light readiness. Thankfully the crisis ended with the climb down of the Soviets. USAFE was however prompted to add the nuclear delivery mission to the 66th Voodoos. The RF-101s had always been nuclear capable but up to this time the pilots had not trained specifically for this mission. The 38th TRS deployed to Ramstein in Germany. Aircraft had to be modified with the fail safe code devices and an intensive training programme was initiated. Don Karges was with the squadron at this time:

"The RF-101 had a very rudimentary delivery system based on high speed low level tactics which we were very good at. We had the capability of lay down delivery or low altitude drogue delivery. Two different weapons but both had a parachute retarding device for arming and to (hopefully) allow the aircrew to escape before bomb detonation. The Mk 43 was designed for laydown delivery and the Mk 28 for a LADD. These were visual deliveries with approach to the target at 100 feet and 480 – 600 knots. Since these were visual only – no radar – we could be very accurate."

The ranges at Wheelus and Suippes were used extensively for practice deliveries.

Royal Flush V111 in 1963 was marred by tragedy when, prior to the event, Captain Wes Brooks was killed practicing for the low level part of the competition. On the 28th April whilst flying under very low cloud Brooks flew into a blind canyon in the French Alps. On realising his predicament he had lit the burners and gone into a maximum climb. He hit the vertical cliff only 60 feet from the top. George Cowgill was on the accident board covering this crash:

"A farmer in the valley told us the ceiling was near 200 feet when he saw the aircraft pull up with 'flambe rouge'. While we were at the accident site three of us went down the cliff about a hundred feet where some of the wreckage was hung up. Some wreckage went

over the top, some to the bottom of the 2000 feet cliff and a little was caught on the ledge about a 100 feet down"

In 1964 Modification 1181 was carried out on all Voodoos of the 66th. This substantial upgrade was designed to enable the aircraft to continue in service for many more years including with the Air National Guard. In the event, the upgrading of the camera and sensor systems gave the RF-101 the capability to acquit itself extremely well in SE Asia, where it began to operate in 1965. Many of the most experienced of the 66th's pilots went to Udorn in Thailand at the commencement of hostilities in SE Asia to fly the RF-101 over North Vietnam and Laos. They will freely acknowledge that the experience in Europe equipped them well to effectively do the job over North Vietnam.

In 1965 there occurred an event that was to have significant repercussions for the 66th TRW and was to trigger a move to RAF Upper Heyford in the United Kingdom. On April 16th Captain Joe Smith took off from Ramstein on a routine mission over the French Alps. During the flight he was intercepted by French fighters: two Mirages and a Vautour 11N. There was nothing unusual in this and Joe gave them the slip and returned, having completed his photo run, to Ramstein. When he arrived he was greeted by US and French top brass, the latter being very agitated indeed! It seems that he had overflown and photographed the French nuclear facility at Pierrelatte. The French insisted this was a restricted zone. The Americans insisted it was not indicated as so on their maps. However, the US Air Force was the guest of the French and their hosts had to be appeased. It was the unfortunate Captain Smith who became the scapegoat. However it was one of the excuses which Charles de Gaulle needed. The 66th was scheduled to leave French soil during 1966.

In July 1965 a new Tactical Reconnaissance Wing joined USAFE. Based at Toul Rosiere the 26th TRW took over the 32nd and 38th TRS from the 66th TRW. The 32nd had been resident at Toul for a time and remained there. The 38th remained at Ramstein and was joined there by the wing HQ in September, 1966. Both squadrons converted to the McDonnell Douglas RF-4C Phantom. The 32nd joined the 10th TRW at Alconbury in 1966.

In the summer of 1966 the 66th participated in Royal Flush X1. Captains Nick Pishvanov and 'Doc" Cramer of the 18th TRS notched up the highest scores of any USAFE recce pilots in the daylight competition. The Commander of the 18th, Lt Col. Alfred C. Simmons was clearly proud of his 'braves' achievement:

"Everybody pulled together, from the pilots to the ground crews to just about any job you could think of.....It was a max effort all the way and we're proud of the results."

The 2nd ATAF won the overall Greunther Trophy in the competition

The 17th and 18th TRS' flew 36 Voodoos to RAF Upper Heyford on September 11th 1966 and soon settled into their routine. Missions from Upper Heyford were very different from those out of Laon. Indeed the pilots had to fly further in order to exercise efficiently. Controls for missions over Europe came under the jurisdiction of Heathrow, and subsequently, Southern radar. Most practice missions not flown over the UK were flown over Germany and the Low Countries; the French being characteristically uncooperative in

allowing low level training and, indeed, imposing many alarming restrictions on entry into their airspace.

In May, 1967, the 18th TRS again took part in a *Royal Flush* competition. The 18th achieved a great success. Major Ed Satterfield, the squadrons assistant operations officer won the individual award in the daylight division. Nick Pishvanov, now Major, was in the team again:

"To rub it in we did a fly by over Alconbury (RF-4Cs) a week or so later. During the flyby we activated our vulgar looking refueling probes and gave them the famous horse dong salute. They did horribly."

The reaction of the pilots of the RF-4Cs of the 10th TRW is unknown!

During 1968 it was announced that the 17th TRS was to convert to the RF-4C in the following year. Duly on March 27th 1969 the first two Phantoms flew into Upper Heyford. and the 66th became a mixed reconnaissance force; the 18th RF-101Cs limited to the daylight role and the RF-4Cs capable of an all weather day and night operation.

The advent of the RF-4 gave the 66th TRW a longer arm in terms of target access. In the event of a 'hot' war the longer reach of the wing's aircraft would have made many previously inaccessible targets behind the iron curtain easily acquired from the bases in West Germany to which they would have been deployed. The Phantom was certainly a popular aircraft with the pilots who flew it; albeit regarded with some disdain initially by the RF-101 jockeys. Nick Pishvanov:

"We didn't even use a back seat navigator"

The 17th TRS took it's Phantoms to Zweibrucken in early 1970 to join the 26th TRW; and the 18th returned stateside to rejoin the 363rd TRW at Shaw AFB.

The 66th TRW was deactivated on the 1st April, 1970.