

## Flying Legends and War Stories

By: John Towler

Over the years, at their passing, I have heard many men say they wished they had taken the time to listen to their father's stories. I made a promise to my three sons to write as many of mine as possible.

The first of these stories was "The History of the 4<sup>th</sup> ASTA." This is available on Google as "4<sup>th</sup> ASTA."

The 4<sup>th</sup> ASTA consisted of 4 "C" and 2 "B" Model OV-1 Mohawks which arrived at Vung Tau, Viet Nam on December 23, 1964 after a 4-hour flight from Cubi Point Naval Air Station in the Philippines. My crew member in the right seat was Sgt Chuck Davis who was one of the most accomplished OV-1 mechanics. I was fortunate to have him on this particular flight.

When we departed Cubi Point that day, each aircraft was carrying 300 gallon external drop tanks. Our pre-takeoff procedure was to check each drop tank to insure that the transfer was operating efficiently. There were no problems with any of the systems prior to our departure.

With 300 gallon drop tanks it was imperative to ease into takeoff ; otherwise, the fins could drag the runway, creating sparks. Sparks and jet fuel are not a good combination. At this time, the OV-1s had L-7 engines and would not fly with this added fuel load if an engine was lost. At takeoff, one of the duties of the right seat person was to place their left hand on the external jettison handle and be ready for the pilot's command to drop the tank in the event of engine failure. It was understood that if the pilot said "drop now" that was exactly what he meant. Fortunately, this procedure was not required at this time.

The climb to our assigned altitude of 8000 feet seemed to take forever. A Tennessee Air National Guard C-97 was assigned as our escort. The C-97, by prearranged briefings and takeoff times, had departed Clark AFB and was to be overhead Cubi Point at the time of our takeoff. The C-97 would then head west towards Viet Nam which was 900 miles across the South China Sea.

As flight leader, after leveling at 8000 feet, I opened my orders from their sealed envelope. Inside was the frequency of the Automatic Direction Finder (ADF) transmitter for the homing device on the C-97. (Note: Our aircraft did not have long range navigation equipment to fly that distance.) Included in the packet was the frequency of Phan Thiet, a radio beacon on the coast of South Viet Nam. Our flight pattern had pre-set times: I was to turn right 90 degrees for one minute, then left 90 degrees for one minute, left 30 degrees one minute, then right 30 degrees. Radar controllers on the ground at Saigon Airport had the same information. (This signal was developed by the Navy to penetrate a combat zone when there would be more than one aircraft flying in formation.)

About 3 hours into the flight, we passed our halfway point – the point of no return, and discovered the left drop tank was not transferring. There was no way to determine how long this had been going on, so I attempted to check the fuel in each tank. The left tank indicator was inoperative. Since we had leveled off at altitude several hours back, I was still on auto pilot. I told Sgt Davis that I was disengaging the autopilot. Immediately, the left wing dropped. After a 2000 foot drop, I was able to recover to level flight. We realized at this point that we might not have enough fuel to make Vung Tau.

When we were able to pick up Pan Thiet ADF, we saluted our Mother Goose, the C-97. Waving goodbye, we watched her turn towards Saigon.

With 300 gallon drop tanks, we knew we could not land with one tank empty and one almost full. We decided to see if we could trim the aircraft to level flight by turning the left aileron trim all the way to the right, then see if we could hold wings level with the stick. This confirmed that we could not land safely, and flew out over the ocean to jettison both tanks.

I instructed Sgt Davis to be prepared to pull the jettison handle, dropping both tanks. He replied “Ready.” I said “Pull” then I said “Wait”. He said “sorry sir, the tanks are gone.” It was true that the full tank did drop away; however, the right tank stayed with the aircraft. Now we really had a problem. By this time I was talking to tower and maintenance people on the ground: one suggested rocking the wings which we tried. The tank stuck to the wing. Then we tried moving the rudders swiftly, left and right, which did the trick; however, the remaining tank did not drop away. The left and right movement caused the nose of the tank to change positions, relative to the wind. Breaking away from the release, it tumbled across the wing. Fortunately, it tumbled up and over the wing instead of side to side which would have hit the right prop.

Free of the two tanks, we made a great landing at Vung Tau. I had begun leading this flight and in end, landed last! But safely!

Vung Tau, so named by the French, was to be our home for the next year. Cape St. Jacques was a small coastal city at the end of the mainland. It was also classified as an island. All pilots lived downtown with the 4<sup>th</sup> ASTA pilots housed at Hotel Magnific, an air conditioned two-story hotel one block from the beach. Vietnamese mamasons and papasons took care of our needs.

When we first arrived, there was no security – none seemed to be necessary. In this hot climate there was either months of monsoon rains, everyday, or six months of dry, hot, weather.

Every day we flew different types of missions. The day crews or the gun-ship platoons, would fly the “A” model OV-1’s, all with the short wings fitted with a combination of ordnance. The ordnance was based on the mission requirements. If the “A” model gun ships were supporting a Special Forces Operation, they wanted close-in support. One aircraft might be equipped with 4 rocket pods each, containing 18, 2.75 inch rockets. The

other aircraft might be equipped with 4 - 50 cal machine gun pods. Some missions required each aircraft to be armed with the same. Each aircraft with 4 - 18 round rocket pods. Some other missions required 2 - 50 cal rocket pods and 2 rocket pods with a cluster of 9 - 2.75 rockets in each pod.

I was the only pilot who came over with the 4<sup>th</sup> ASTA to be checked out in gun ships. As Assistant Operations Officer conducting briefings on various missions, it was determined that I should be qualified in each of our aircraft. In early January 1965, Capt Dave Gray gave me a short introduction to the mission of aerial ordnance delivery (so-named by the Army.) After a few hours of practice on one of the islands near the base, Maj David B. King, our Company Commander, gave me a check ride and presented my certificate: "Qualified to Deliver Aerial Ordnance."

During the rest of 1965 I either flew day gunship missions, night SLAR or night IR missions.

The first time I received fire from the ground, it also was the first time in my life I had someone shooting at me. This occurred on my first operational gun ship mission.. Capt Freeman Howard was flight leader. We were supporting a Vietnamese military operation in the South Delta region. Flying in formation at 4000 feet, Capt Freeman received a request from one of our ground observers for help. They were being surrounded by a Viet Cong force. Capt Freeman rolled in on the target.

(Note: the procedure for rolling in on a target was as follows: Flight Leader would radio "In and Hot" meaning that he had armed his rockets by flipping a switch in the cockpit to arm the electrical system in the wings and out to each rocket pod. "Rolling In" meant that you turned the airplane almost inverted to keep positive G's on the wing mounting pods. Then you would roll the aircraft upright, diving at the target at a 45-degree angle.)

The aircraft would be building up speed in this dive which required all the pilots' skill with stick and rudder to line up gun sights on the target. Once the target was lined up, the pilot would determine how many rockets would be selected to be fired from each pod. We could watch rockets all the way to the target and, if you had enough time, you could make some minor corrections and depending on altitude, it might be possible to get off another burst.

Diving towards the ground at a 45 degree angle, with the airspeed building fast, we always started our pull-out at 1200 feet. Four thousand to 1200 feet at 250 mph did not take long. When we pulled back on the stick we watched the G meter which measured the amount of forces being placed on the aircraft during pull-out. The stick would be held back until the amount of G forces reached 4.

Starting the pull out at 1200 ft, with a 4-G pull would mean that you would clear the ground by 500 to 600 ft. We would hold these G's until we again reached 4000 ft, where we would roll over into another dive.

If the flight leader rolled in on a 360 degree heading, then the number 2 man would roll in 45 degrees later; however, the 2<sup>nd</sup> pilot would never roll in and say 2's "In and Hot" until the flight leader radioed "Off & Safe."

When two pilots worked well together, timing could be good. When he rolled off, you would be rolling in. This would keep the enemy guessing as to which way you were coming.

On my first mission, Capt Freeman rolled in. When he said "Off & Safe" I rolled in with "In & Hot." Rocking the stick and kicking rudder pedals to get my sight lined up, I could see white puffs of smoke coming towards me. My rockets were going directly into the tree line where these tracers were coming up from. Then I heard the first of several bullets hit the nose of my aircraft. It is nearly impossible

When I was rocking the stick and kicking the rudder pedals to get my sight lined up. I could see white puffs of smoke coming at me. My rockets were going directly into the tree line where these tracers were coming from. Then I heard the first of several bullets hit the nose of my aircraft. It is nearly impossible to explain the sound of bullets crashing into metal. There was metal flying all over the cockpit. I pulled off the target and called to the flight leader that I was hit and "Hit Bad."

Neither I nor my observer were wounded. Capt Freeman flew up alongside me and looked over my aircraft but could not see any damage. Then I realized I did not have any rudder control, like they were partially jammed. There was a small support airfield near where we were, Soctran. We notified them that I had sustained battle damage, with only partial use of the rudder. Landing safely, we got out of the aircraft to observe the many hundreds of bullet holes we thought we would find. It took nearly five minutes to find one single bullet hole. That bullet came up through the nose near the mounting bracket of the ILS antenna. Penetrating the skin, it hit the rudder bell crank and jammed it against the mounting post. Pieces of the bullet then split up and landed behind the ejection seat.

Men from our maintenance section flew down, repaired the rudder bell crank and we flew the aircraft out.

When we had 50 cal machine gun pods attached to the bottom of our wings, we would use a different approach. It was possible to shoot yourself down because of ricochet; therefore, we approached our target at low level, pull up to 1000 feet, roll inverted with the nose down until sights were lined up on the target. Then we would roll upright and begin firing. Fifty calibers were almost always fired at low level because any high angle could cause a pilot to fly into his own bullets.

When pulling off the target from these gun runs, we would, if possible, bank left into a sharp turn. Turning left was always better because you could see any future targets out of the left window, instead of the right side.

When a mission was completed, and/or all the rockets and 50 cal ammo was depleted, we would head for home base at Vung Tau. We would fly in formation at least 1500 ft above the ground, with a straight-in approach, in tight formation, directly over the end of the runway and at 1500 ft above the numbers. The flight leader would bank sharply, at least a 90 degree bank, to the left, and call out, "number one is on the break." Number 2 would count to 3, then he would break left and call on the radio, "number two is on the break." (This was called a 360 overhead approach.) The procedure was to be flying at cruise throttle, 180 knots at the break, reducing the throttles to flight idle, activate the speed brakes, at the 180 degree point above the runway, speed would now be at 150 knots. We would drop landing gear, go full flaps, point the nose down to keep 120 knots, and continue the turn to arrive over the end of the runway at 100 knots, with gear down, full flaps and speed brakes out. The leader would land on the left side of the runway, so the number two plane could land on the right side. You would roll out together, and taxi to the end of the runway.

When flying armed aircraft, it is very dangerous to land directly behind another aircraft. For this reason we landed on either side and never taxied to a hangar directly behind another aircraft. Each aircraft, starting with the flight leader, would taxi to the de-arming area. One of the armament enlisted men would direct the aircraft towards him. Stopping the aircraft and setting the brakes, the pilot would place both hands on the cockpit console as a signal that armament personnel could approach the ship and manually de-arm the wing mounted gun and rocket pods. An "all clear" signal would be given by ground crew for Flight Leader to proceed to the hangar. The next aircraft would follow the same procedure.

Each pilot and crew member/observer would deplane, removing all their flight gear, Mae West's, and flight harnesses. They would then proceed to Operations for a debriefing with Intelligence.

Before take-off this procedure was reversed. Each system had to be armed from the ground at the end of the runway. Should any electrical malfunction occur, it protected hanger and operations buildings from damage.

When visual missions were completed, many pilots would be assigned to night IR or SLAR missions.

During the 1965 time frame, the 73<sup>rd</sup> had three platoons of flying operations:

- The Armed Platoon with 8 OV-1A models.

- The IR platoon, with 4 OV-1 C models

- The SLAR platoon had 4 OV-1 B models.

These numbers and company configurations changed many times over the next several years of the Viet Nam conflict.

The OV-1 C models flew both day and night Infrared, known as “ IR” missions. When the first C models were assigned to the 4<sup>th</sup> ASTA and for the first few months of 1965, we did not have any liquid nitrogen generators on board the aircraft. The IR sensors would get extremely hot, and the only way to cool them was with liquid nitrogen. The IR operators, along with our maintenance personal would operate a liquid nitrogen generator on the ground to make liquid nitrogen. This was a bad way to do it. Thankfully, the IR system’s factory developed an on-board liquid nitrogen generator. The liquid nitrogen would then keep the IR sensors cool through the transfer process within the airframe.

Prior to an IR mission, both the pilot and IR operator would attend a briefing usually conducted by our own intelligence officers. The information they had was based on what the ground commanders needed.

Ground commanders would send in requests through various military channels requesting an IR mission in their sector. They were concerned about enemy activity near their area of operation, giving map coordinates of the sector they wanted observed. These map coordinates would be given to the crews who would also look for any other suspicious activity while in the area. The IR operator was responsible for checking the system equipment prior to flight.

After a pilot receives his briefing, he would file a flight plan (local VFR or IFR) based on weather conditions. At night in South Viet Nam, there were very few lights on the ground, so most pilots preferred to be on an IFR flight plan. This provided radar following so that in case of emergency or, if shot down, there would be a radar track to your immediate position.

On every mission each crew member wore a flight suit, combat boots, flack vest, Mae West, and a side arm with extra ammo. Each carried a personal survival kit with a larger survival kit and first aid kit in the parachute harness. Once you both were strapped into the ejection seats, and all harnesses tightened, you would indicate to the ground guide that you were ready to start engines. The left engine was usually started first because once the systems were up and running, any problems were usually associated with the IR systems. It was safer to ground personnel to approach from the right side so assist the IR operator with any adjustments required.

After both engines were started, helmets on, intercom checked, and aircraft systems checked. the pilot would ask the tower operator for taxi clearance for take off. Each aircraft call- sign was usually based on the missions to be flown. Once in the run-up area, each pilot conducted a run-up of the engines to insure each was operating satisfactorily. The pilot would ask for take-off clearance, with a guidance hold on the active run way. The purpose of the guidance hold was to align the runway heading with the on-board Doppler navigation equipment. The Doppler system was based on the longitude and latitude of the present position. This information was dialed into the computer, along with the first waypoint of the mission, with wind and drift information. Once the system was slaved with other computers, then the pilot would start the take off.

Throttles would be brought to full power, rotation starting at 100 knots, depending on the runway length and temperature factors, with rotation around 110 knots. Then gear and flaps up. There was not much climbing on an IR mission. The optimum altitude was 300 to 500 ft above the ground which was the best altitude for IR sensors.

While the pilot was aligning the Doppler navigation system for the aircraft, this same information was being inserted by the IR operator into his systems.

The pilot would then follow the Doppler navigation track across the ground to arrive at the first checkpoint. This is the point where the IR operator basically takes over control of the aircraft, not actually piloting, but giving the pilot which course to fly. The IR operator concentrates on his scope searching for anything that would cause a hot spot on his screen. These missions were the most dangerous of all the OV-1 missions flown in Viet Nam for these reasons: the aircraft was alone; there was no escort aircraft. In order to get accurate information, many of these IR missions would be flown between 200 and 500 ft above the ground, at night, in all kinds of weather, in the valleys, with mountains on all sides.

The aircraft would be radar vectored to the general area by Air Force controllers; however, when the IR ship then descended below the level of the mountains, they were out of radar range. The pilots and the IR operator depended solely on the on-board Doppler navigation system to give them an accurate position.

There were many aircraft lost from actually flying into the sides of mountains. The Doppler Navigation system was very accurate if it had been programmed correctly and there were no systems that shut down during missions. When a light on the Doppler appeared, this gave the pilot information that they were in a very dangerous situation, with last-known information. In many cases this proved fatal. Generally, when this light came on, pilots would instantly apply full power to both engines, pull back hard on the stick and climb to an altitude that would clear mountain ridges.

There were a few very aggressive pilots who wanted to stay on target and gather the information. This, again, was the sole discretion of each pilot. Many of them paid the ultimate sacrifice for this decision.

IR missions flown in the flat Delta region were termed "a piece of cake" because there were no mountains. Flying IR missions in the Delta were not without hazards. One such mission, was flown by Lt. Charles A. Dale and in the IR seat was SP-4 David Demmon. They disappeared somewhere in the Delta, on the night of 9 June, 1965. There has been no discovery of the aircraft and the two crew members to this date.

Generally, the enemy could tell when one aircraft flew a certain track on one night, another aircraft would follow the same track the following night. During the past 40 or so years much conversation has occurred considering that perhaps Lt. Dale was shot down with a missile. Small arms fire would not bring down an OV-1, even if they got off

a lucky shot, hit an engine, or fuel line. The crew would still have time to send out a distress call and eject.

I flew many of these same IR missions, both in the Delta and in the mountains and could see that we were being fired upon by watching the tracers come up from the ground. This was also great intelligence information, so the enemy usually would not fire on the night mission aircraft unless they were sure they could get a direct hit.

When a mission location was completed by flying a mission grid, or "Bingo Fuel" it monitored the time flown then you could calculate how much fuel was remaining to reach an airfield with JP-4. When this occurred, the IR operator would begin shutting down his equipment while the pilot was flying the aircraft to the nearest airfield. In some cases, we would fly all the way back to Saigon where debriefings were conducted.

Both the pilot and the IR operator would be a part of the debriefing process. The IR operator would hand over IR film and answer any questions by Intelligence regarding the size of "black spots" on the film. The size of these spots would indicate the concentration of the heat source. Many times this may mean several vehicles or the size of the cooking operation.

We also learned not to fly the same route or course two nights in a row. The first night may be a surprise to the enemy; however they learned that if they fired at you and missed, or just filled the airplane with bullet holes, this information was recorded by the IR operator. The exact coordinates would be sent to the B-52's and their bombardiers would put the coordinates in their computer, and that would be the end of the VC's operation in that area.

We also lost another crew on July 4<sup>th</sup>, 1965. This was a daylight visual recon mission. Capt James R. Schrieff was the pilot and in the right seat was a South Vietnamese officer. Capt Schrieff was shot down during a gun run on a VC target, and he never pulled out of the gun run, flying straight into the target.

We also had OV-1 B models. These missions were flown at a safer altitude than IR missions. The best altitude for the B model was 4000 ft above the ground. This allowed the radar signals to penetrate into enemy territory and the aircraft could stay over friendly areas. This was based on a conventional war. In a war such as South Viet Nam, there was nothing conventional..