

Combat Talons in the Son Tay Raid.

Colonel John Gargus USAF (Ret)

This story was published in the Air Commando Journal in the Fall of 2013.

Our 1970 attempt to rescue American POWs from Son Tay in North Vietnam started out as a small joint ground and air special operation that grew into what, up to that time, became the largest nighttime air battle of the Vietnam War. To appreciate how this event evolved, we need to recall the aircraft capabilities of that day.

North Vietnam had the most formidable air defenses of that time and we were losing many aircraft in our daytime bombing missions. Son Tay POW camp was well inside this heavily defended air space just 23 miles west of Hanoi. Daytime rescue attempt would be suicidal. Successful invasion had to be done at night with undetected intrusion into their air space.

Stray Goose Combat Talons had been sneaking into North Vietnam at night for four years, executing a variety of clandestine missions on the periphery of their formidable defense umbrella without getting shot down. They had the planning, navigation equipment, electronic countermeasures, and crew experience to do this with a single aircraft employing terrain following tactics that avoided early warning radar detection. They always managed to accomplish their targeted goals before the enemy responded to their surprising presence in their well-defended and lethal zones.

Our search and rescue capabilities of that day were conducted by Jolly Green Giant helicopters and supporting Skyraider fighters. Jolly Green Giant HH-3s were being replaced by a longer range, more powerful, and faster Super Jolly Green HH-53s. The A-1E Skyraiders were not air refuelable, but they had sufficient long range endurance and loiter time. But, like the helicopters, they did not have the navigational capability to fly in at night, avoid enemy radar detection, and then find the prison camp. By themselves, they were not survivable in the formidable North Vietnamese air space. To carry out a successful raid, they would have to get in undetected, rescue the prisoners and then run for the hills toward Laos, out of the air defense hornets' nest they would surely provoke.

Consequently, the initial plan presumed that a Combat Talon C-130 would have to fly as pathfinders for the Jolly Greens and the Skyraiders. Because the early planners wanted sufficient back-ups for everything, they opted for two combat Talons. This way one could escort the helicopters and the other the Skyraiders. There would be two formations flying at different airspeeds. That basic plan appeared simple enough.

Secrecy of this daring rescue was of utmost importance. Much needed nighttime training for this operation could not possibly be conducted in Vietnam. A task force had to be trained in the USA and then inserted secretly into the war zone just for the raid. Obvious place for training that would not cause undue attention was Eglin AFB where experimentation of all kinds was always on-going. So that is where the Joint Contingency Task Group, headed by Brig. Gen. Manor, commander of the USAF Special Operations Force, assembled.

One Combat Talon, #64-0558, came from the Detachment 2 of the 1st Special Operations Wing at Pope AFB and the other, #64-0523, from the 15th Special Operations Squadron at Nha Trang. Nha Trang aircraft was already in California at Lockheed Air Service undergoing modification. Its squadron in Vietnam was simply informed that the on-going modification needed more and more time. Combat Knife Detachment from Pope AFB provided one volunteer crew and a complement of maintenance people. Combat Arrow squadron from Ramstein AB in Germany provided another full crew. Heavy Chain unit from Norton AFB in California, that had the same navigation and electronic countermeasures in their special mission C-130s, was tasked to provide 12 maintenance personnel for this unique equipment.

General Manor briefed selected members from both Talon crews who became the air operations planners. From the Pope AFB crew they were: Lt. Col. Albert (Friday) Blosch, aircraft commander; Capt. Harry Pannill, first pilot; Maj. John Gargus, navigator; and Lt. Col. Cecil Clark, EWO. The Ramstein AB crew was represented by aircraft commander Maj. Irl (Leon) Franklin and navigator Capt. Tom Stiles. Gargus and Clark served as mission planners during their tours in Vietnam. Flying as regular crew members and serving as unit's mission planners they were well exposed to the capabilities of North Vietnamese air defenses.

The very first thing they concluded was that the terrain following option for sneaking into North Vietnam was out. The APQ-115 radar could not operate at speeds below 160 knots. It could be used only for mapping and for terrain avoidance operations. Because of extremely slow formation flying, aircraft's nose high attitude would exceed the antenna tilt even for the terrain avoidance flight. Navigators would have to compensate for that, knowing that terrain at or slightly above the flight level and dead ahead of the aircraft would not be seen and that terrain to the left and right would be shown higher in relation to the aircraft's true horizon.

Radar limitation was not the biggest problem faced by the Combat Talons. It was the consequences of the slow flight. Original plan had the raiders use UH-1H "Huey" helicopter for insertion of the rescue force into the prison courtyard. Maximum airspeed of that helicopter at anticipated altitudes and atmospheric conditions encountered in Southeast Asia was 87 knots. The only way a Huey could be escorted to Son Tay was by drafting off the C-130's left wing. Experimental flying proved that this could be done if the C-130 flew at 105 knots with nose up 10 degrees with 70% flaps. Huey could drop down just aft of the left wing and flying with 5 degrees nose down stay in tow gaining 20 knots in air speed. It was very difficult, strenuous and hazardous flying that was reluctantly abandoned after the first dress rehearsal. Bodies of eleven battle dressed men crammed inside of the small Huey for more than 3 hours could not execute the swift attack to subdue the guards inside of the prison.

We had to settle for insertion by HH-3 which required 14 more feet of rotor space than the Huey. The HH-3 would have to chop down some tree limbs in its landing inside of the courtyard. Good thing was that HH-3 could fly faster than 105 knots on its own. It was air refuel able and had room for 14 men as well as extra equipment that could be carried on the raid. In spite of that advantage, we decided to stay with the 105 knot air speed for the helicopter formation. This was because we wanted UH-1H as a possible option if we could not get an HH-3 from a rescue unit in Southeast Asia. HH-3s were being replaced by HH-53 at that time. So a UH-1H was flown to Thailand in a C-141 as a possible back up.

Combat Talon that led the helicopter formation was called Cherry One. Super Jolly Green Giant HH-53s were Apples One through Five. HH-3 was called Banana. The whole Cherry one entourage, bringing in the ground troops, was the “Assault Formation”. Extensive nighttime flying training with helicopters was necessary. At that time in the war, helicopter operations, including their air refueling, were conducted only in the daytime. Night time helicopter refueling was just entering its initial training phase at Eglin. There were no nighttime helicopter refueling tanker crews in Southeast Asia. The raid would employ the first nighttime operational refueling of helicopters.

Formation flying with the Skyraiders was not a problem. We flew at 145 knots. Our only problem was that we had to make very gentle heading changes to ensure that the Skyraiders in the V formation did not lose the sight of our guiding wing tip lights that were visible only from above. Call sign for the Combat Talon leading the “Skyraider” Strike Formation” was Cherry Two. Skyraiders were Peaches One through Five. They were needed to provide air cover for the ground operation. The whole 13 aircraft ensemble was called “the Fruit Salad”.



Cherry One with Apples.



Cherry Two with Peaches.

We tried hard to keep flight plans for each type of aircraft as simple as possible even though we had to orchestrate a pretty complex and carefully timed arrival into the objective area at different air speeds and altitudes. Everything depended on the open ended arrival time for the Assault Formation into the objective area. Arrival times and altitude separations of others had to be based on that critical time. The assault time was based on the prison guard shift change that occurred regularly at 2:00 AM. Ideal attack should take place 15 minutes later when the new shift was just getting ready for a boring, monotonous night and the retiring one was getting to bed. We also needed to establish a critical distance from the prison where the formations would break up and each aircraft proceed on its own to complete the mission. With all that, each aircraft would still have a very simple fixed flight plan to follow that would fit in into a more complex objective area scenario.

Both formations would fly the centerline of six mile wide corridors that gave them 1,000 ft. clearance above the terrain. This wide corridor was dictated by the possibility of a helicopter formation break up in which case the helicopters would spread out and the C-130 would make a circle coming back under the helicopters and reestablish the original formation. If Cherry One lost an engine, or could no longer continue leading the Assault Formation, Cherry Two would abandon

the Skyraiders and speed in to take over the helicopter formation. In order to do this, Cherry Two had to be not more than 10 minutes away at the start of the dog-legged low level flight and 2 minutes away at the initial point upon entry into the Red and Black River Basin. Because the Assault Formation flew at 105 knots and the Strike Formation at 145 knots, the two routes had to criss-cross each other to keep them that close to each other without the faster one overtaking the slower. Keeping this up in flight was a navigational challenge for the Strike Formation. No matter what kind of timing problem happened to the Assault Formation, Banana's arrival time at the prison was the time to which all had to adjust their objective area orbits and work.

There were many new innovations we planned to use in the raid. Some involved the Combat Talons. We were concerned about positive identification of our formation turning points to ensure that we remained in the center of our corridors. To accomplish this, we had the only two existing experimental forward looking infrared instruments (FLIRs) installed at Lockheed Air Service in California on both aircraft. These two devices had been tried before by the Heavy Chain unit from Norton AFB. That more than compensated for the mapping inadequacy of our terrain following radar. A 12x10 inch TV like screen turned the night imagery into day and we were able to see landmark features, especially those of rivers and creeks that were concealed by the jungle foliage. Contrast between the water and foliage temperatures made them easily discernible. This new imagery ensured that Cherry One would be able to see the prison camp and guide its flight directly over it. The FLIR monitor was installed to the right of the navigator's console in the space occupied by one of the cockpit passenger seats. It required another navigator to operate it. Because the Ramstein crew came in with a spare navigator, there was no problem. A recently returned navigator from Nha Trang was brought in from Pope AFB. He was Capt. Norman Mazurek, who was promptly added to the mission planning staff because of his recent work in mission planning. Lt. Col. Bud Neville, who had used the FLIR at Heavy Chain, was summoned from his assignment at Tactical Airlift Center at Pope AFB to come to Florida to give us instructions on its use.

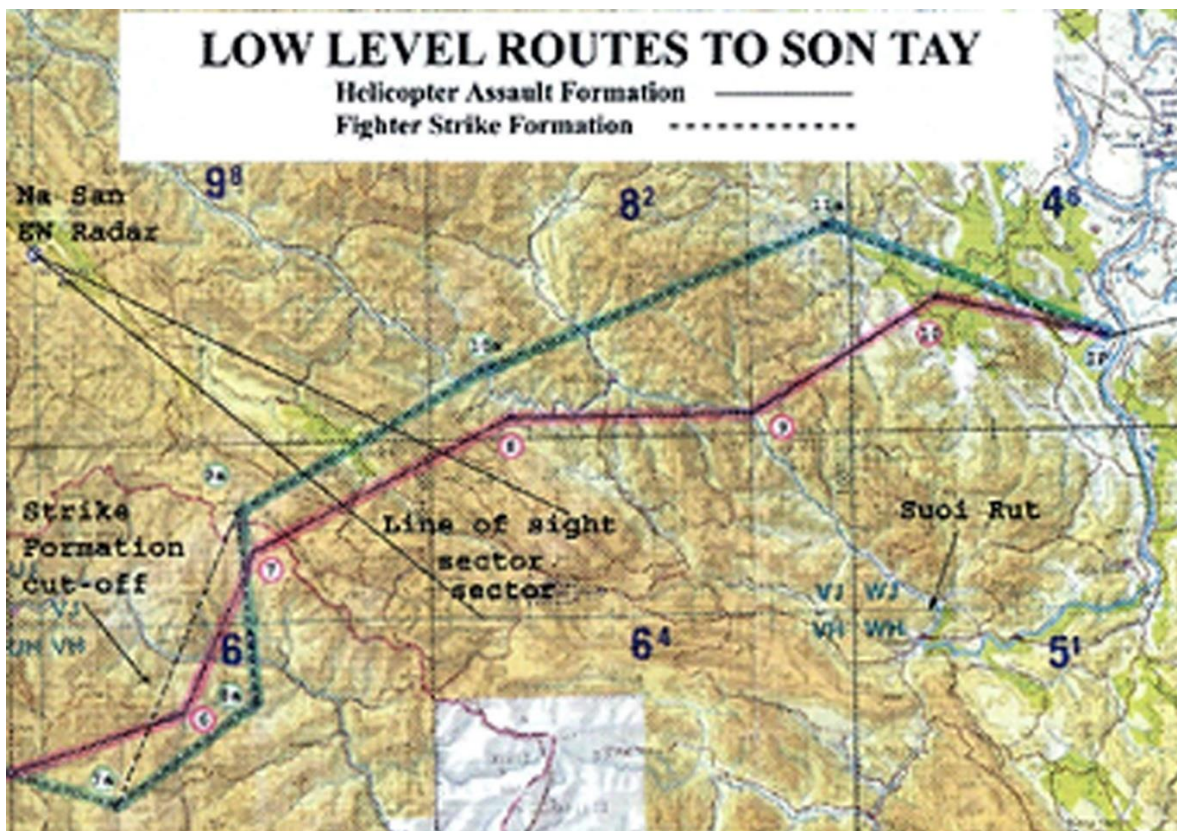
We also experimented with the first six night vision goggles that were being developed at Ft. Belvoir. They also turned night into day, but one had to move his head slowly because of excessive image smearing during scanning along the horizon. They were unusable in the cockpit because of their tunnel vision and the instrument panel lights glare. They were used successfully by the helicopter crews on the ground to scan the terrain around them for any enemy movement in their direction. Capt. Jim McClam, Army marshaling officer used the goggles to locate and identify the late returning team that provided security at the canal bridge. We were the first ones to use these prototype goggles in combat. They are now standard issue to our troops in Iraq and Afghanistan.

Next, we employed the ground to air transponders to locate the Banana and two other helicopters during formation break ups. They were small boxes normally used for ground target identification by bombing aircraft. Our terrain following radar would trigger them to send back coded signals that would be displayed on our radar scopes.

We also turned our C-130s in to bombers. We designed special cradles for parachute dropping of napalm bombs that would ignite upon contact with the ground and provide up to sixty foot high flames to help the Skyraiders in their orientation in the objective area. We had no idea what kind of local electrical lighting would be available, so we would bring in our own that was very distinct from anything that would be burning on the ground that night. Our loadmasters would

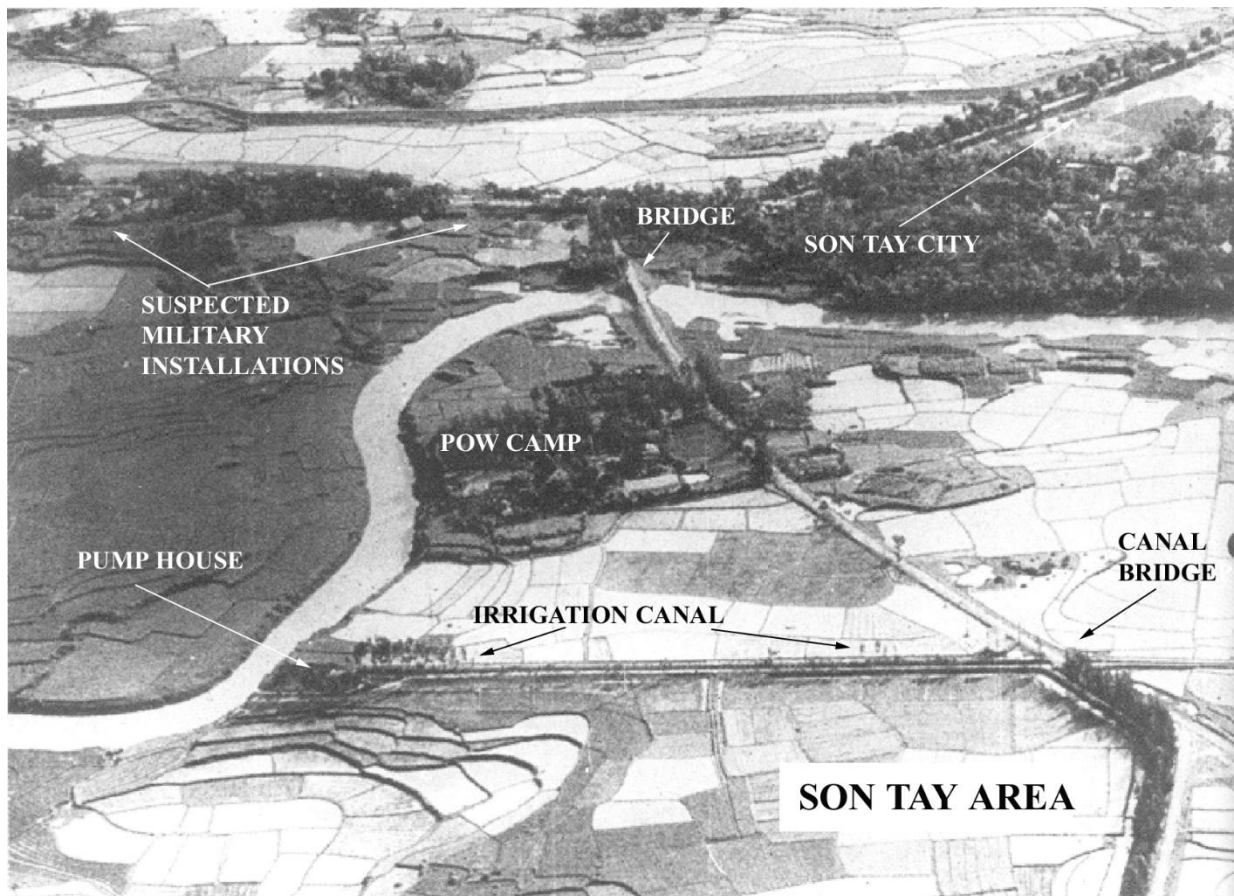
also drop 4 improvised battle simulators and several railroad log flares to confuse the enemy on the ground. The Skyraiders were equipped with jammers of radio frequencies used by the MIG ground controllers. We wanted to create as much enemy confusion on the objective area as we could deliver.

Our two formations had to fly higher than we would like. We had to sacrifice some altitude for the width of the corridor we had to have to keep us at safe levels during possible formation break ups. There was no way for us to avoid exposure to the western North Vietnamese early warning radar at Na San. Calculated exposure to its rotating beam came out to be just over four minutes for the Assault Formation and three minutes for the Strike Formation. All this would occur while the formations were from 39 to 26 minutes away from Son Tay. We hoped that during this period of time Na San radar operators would be preoccupied by reports from the east, where the air defense radars were tracking Navy's intrusions from the Gulf of Tonkin, as well by what they saw happening in their own area in the west. There were the F-4s and F 105s from Thailand converging on their air refueling tankers that were high behind us over Laos. These high flying jets, MIG killer F-4s and SAM suppressing F-105s, were scheduled to be over Son Tay by the time we descended from the mountains into the Red and Black river valley basin. They were to remain there keeping the enemy defenses focused on their high altitude intrusions until we exited the valley about 45 minutes later. The Green Berets planned to accomplish the prisoner rescue in under 30 minutes. Hopefully, high altitude jets would draw all the SAM and AAA fire and divert attention from our on the ground assault and the low level flying support by Skyraiders and Jolly Greens.



Initial point for the Assault Formation was over a small dam by the Black River that was 10.9 miles out of the POW camp. This is where the helicopter formation would descend to 800 ft. and head straight for the camp. At 3.5 miles out, Cherry One would abandon the formation, accelerate and climb to its flare drop altitude of 1,500 ft. Two helicopters, Apples Four and Five, would follow as back-ups for the flare drop. Cherry One would drop four flares precisely over the compound and begin a slow teardrop turn dropping one battle simulator over a highway intersection, another one over a river bridge followed by a napalm bomb marker between the ammo storage and SAM training school.

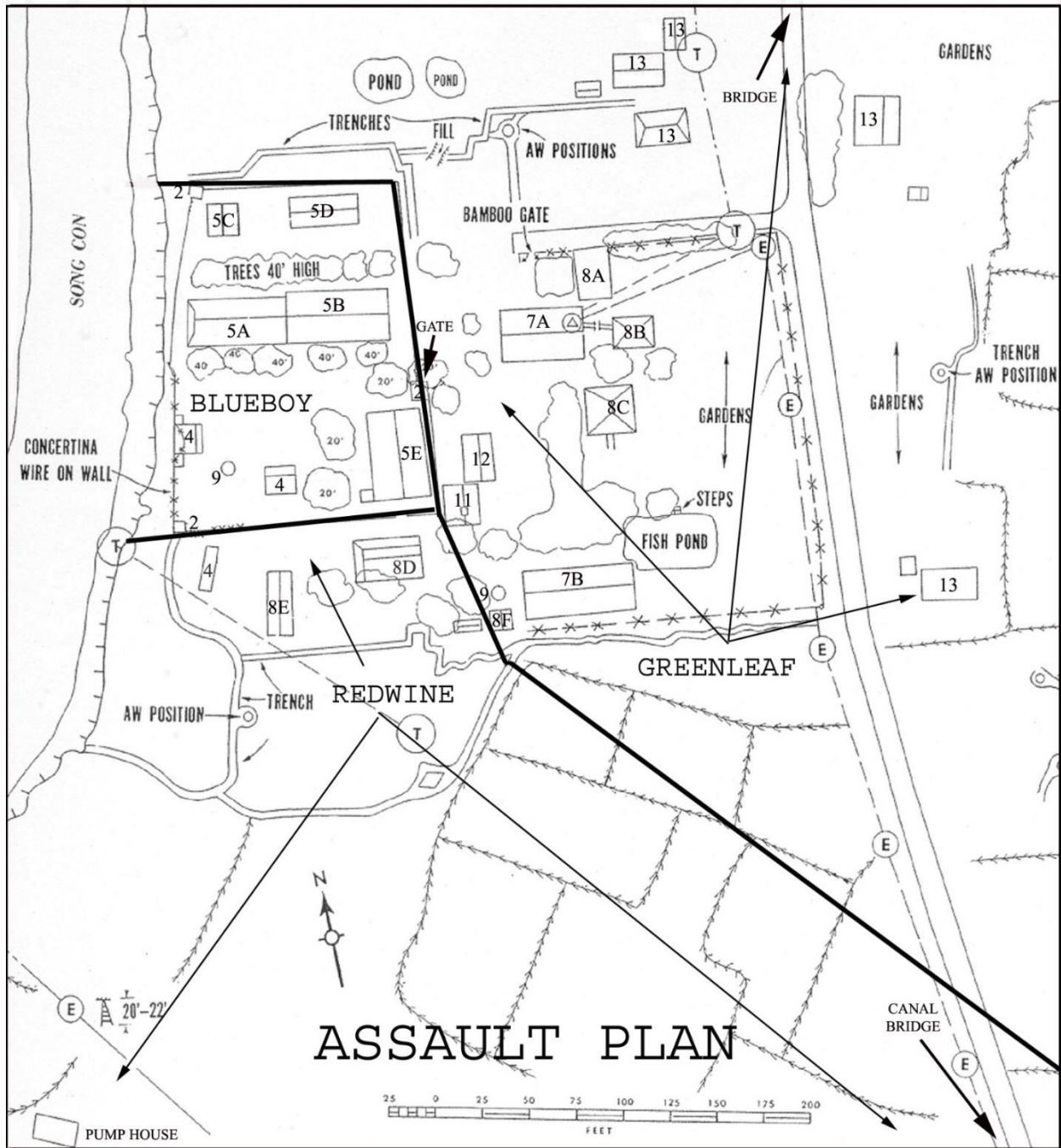
After Strike Formation break up, the helicopters would re-form in trail after Apple Three that served as the gunship. Banana and Apples One and Two would follow at different reduced airspeeds, giving themselves enough special separation for sequential landings. Apple three would fly over the camp, take out the guard towers with its mini guns and attack the guard barracks before turning left to land in a rice paddy. Banana would land inside of the courtyard as soon as Apple Three cleared out of there. Apple One and Two would land outside the camp and secure the area.



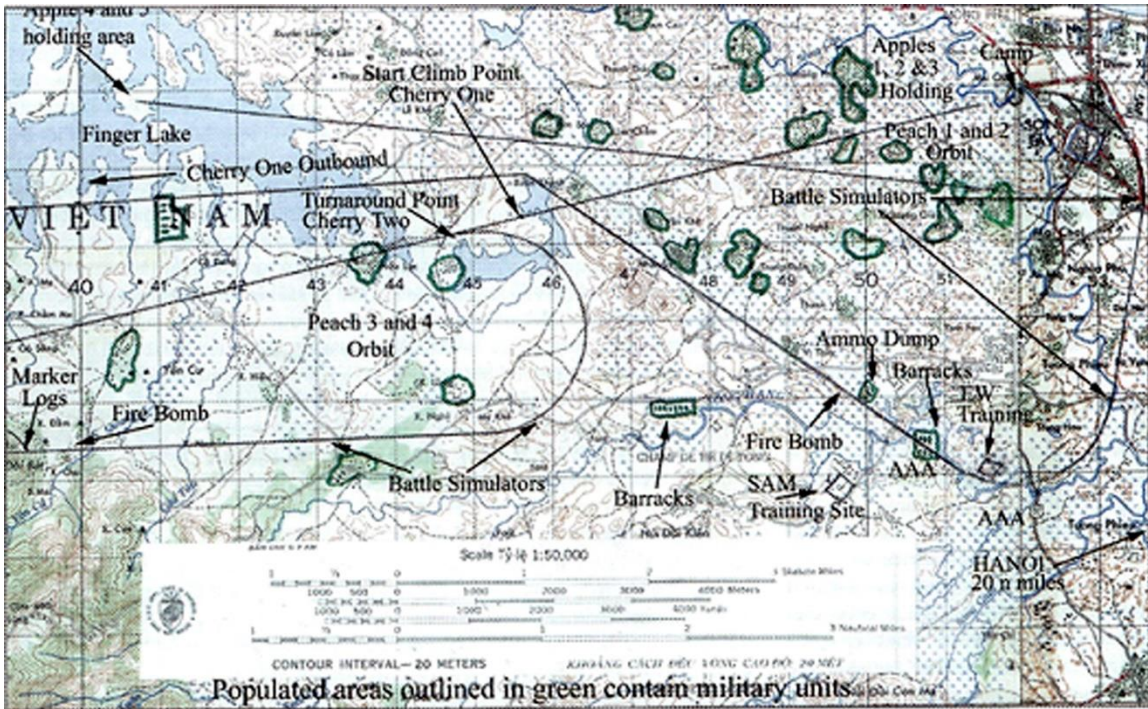
Aerial view of the approach to the Son Tay POW camp.

HH-3Banana would land in the camp's courtyard with 14 Green Berets code named Blueboy. These were the men who would clear the inside of the camp and free the prisoners. HH-53 Apple One with 22 men, code named Greenleaf, were to provide defense east of the camp along the road and destroy the Song Con River Bridge. Apple Two with 20 men, code named Redwine,

contained the command element. They were to provide defense south of the camp and security for the exfiltration of freed prisoners.



Redwine and Greenleaf landing locations and arrows for the dispersal paths of their designated elements.

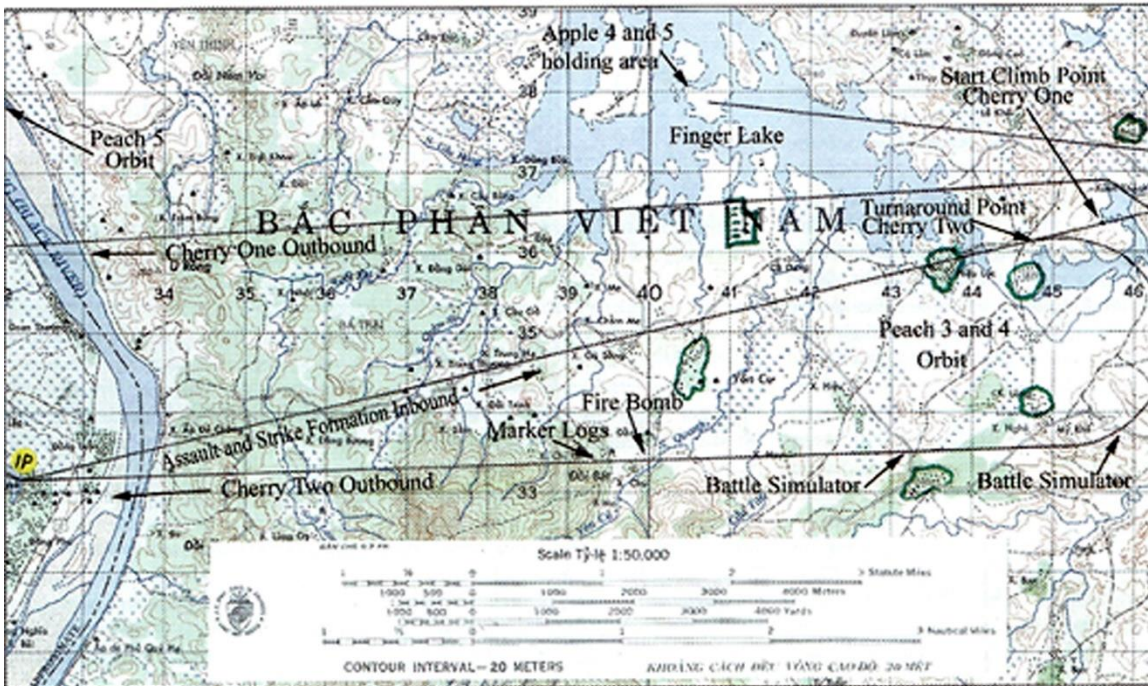


▲ CHERRY ONE IN THE OBJECTIVE AREA

Cherry One's orbital track in the Son Tay area showing drop locations for flares, battle simulators and napalm bomb markers.

▼ CHERRY TWO IN THE OBJECTIVE AREA

Cherry Two's orbital track west of Son Tay showing drop locations for battle simulators, napalm bomb markers and railroad log flares.



Cherry One was planned to fly to the Laotian border from where it would provide direction finder steers for the Apples and Peaches returning from the raid. Apple Four and Five would land on the island in a large lake and respond to the events as needed.

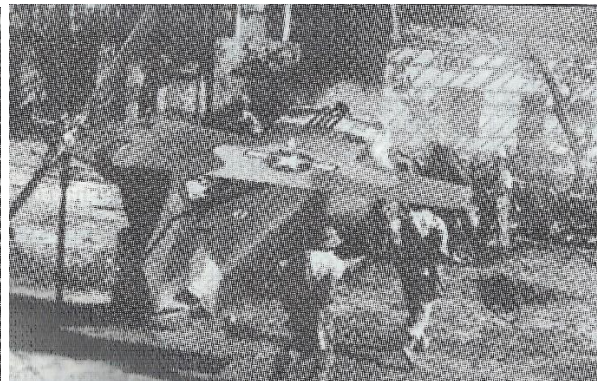
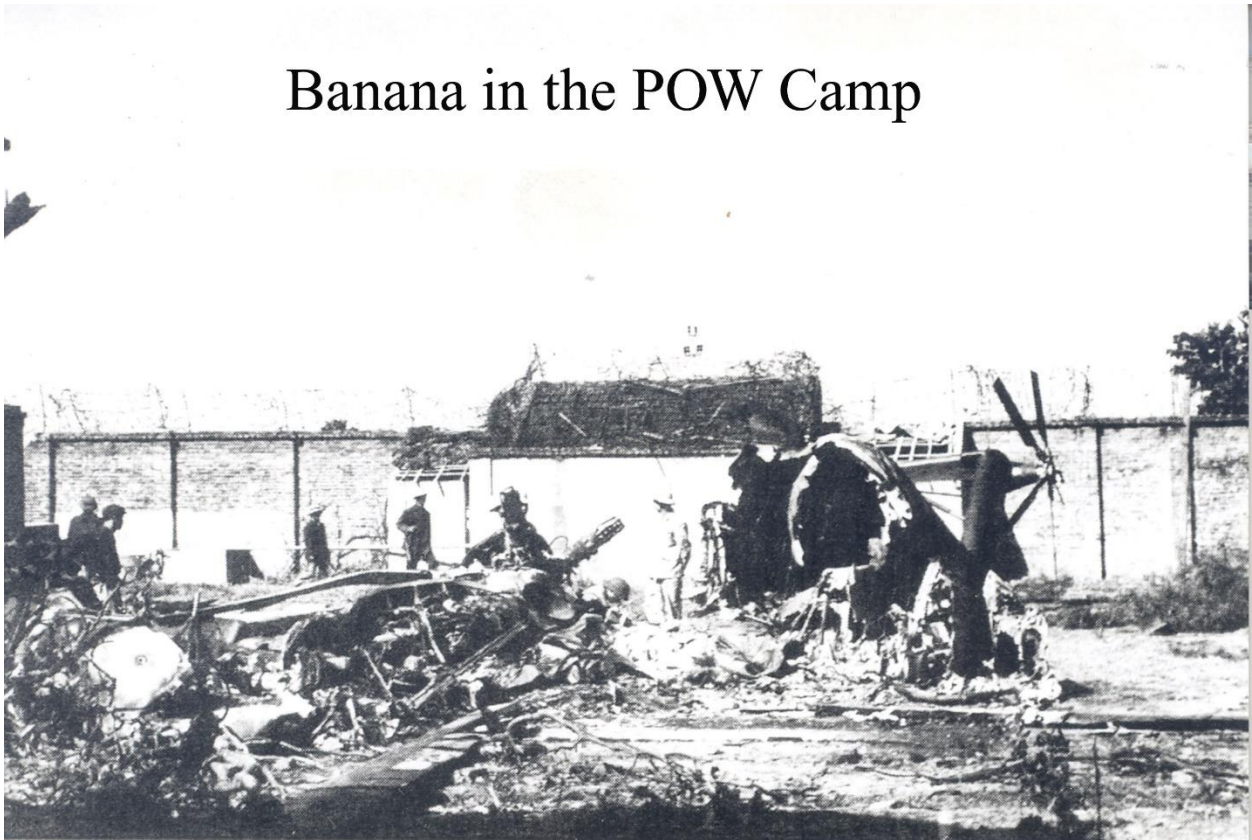
The Strike Formation was planned to reach the same initial point two minutes behind the Assault Formation at 3,000 ft. This was also the initial orbiting altitude for the Skyraiders. They were to fly the final heading toward the flares over the camp on their own. Fire from the napalm bombs would provide them with orbital points once the flare light was gone. Cherry two would descend to 1,500 ft. at 4 miles out to execute a slow right hand turn back to the initial point. During the turn and continuing after, it would drop two fire simulators, two napalm bomb markers and several railroad flares. After crossing the initial point it was planned to establish an orbit and record all radio transmissions (relay any of them if necessary) and monitor exit of the raiding force across the Black River. Once everyone was out an across this river, Cherry Two was to proceed to the Skyline TACAN and monitor everyone's exit toward Thailand.

In our early planning we hoped that we could get the US Navy from the Gulf of Tonkin create a diversion for us so that the enemy's focus would be toward the east while we approached Son Tay from the west. We didn't get a commitment from the Navy for this until Gen. Manor and Col. Simons visited the Yankee Station two weeks before the raid. They began launching aircraft at 1:00AM and provided a hell of a show with three attack tracks dropping flares around the port of Haiphong.



We started in Florida planning air operations for thirteen "Fruit Salad" raiding aircraft. We knew that more support aircraft would be added to the force once we got ready for the raid in Thailand. We wanted some F-4s to protect the raiding force against the Mig interceptors and some F-105s to provide protection against the S-A2 missiles. We didn't think that it would escalate to 57 Air Force aircraft that eventually participated in the raid. We never envisioned that the Navy would respond by using 59 aircraft. Consequently, it turned out to be the biggest nighttime operation of the Vietnam War up to that time. Twenty SAMs were fired against the Navy. Sixteen against the USAF. That was also the biggest missile battle up to that time. We lost only the HH-3 Banana that was destroyed by departing Blueboy group and one battle damaged F-105 that ran out of fuel before reaching a tanker over Laos. We started it all believing that we could do it all with only 13 "Fruit Salad" aircraft lead by two Combat Talons.

Banana in the POW Camp





57 USAF Aircraft

- | | | |
|---------------|-----------|---------|
| 2 MC-130E (I) | 12 KC-135 | 2 HH-3 |
| 1 HH-3 | 10 F-4 | 4 A-1E |
| 5 HH-53 | 5 F-105 | 3 C-130 |
| 5 A-1E | 2 RC-135M | 1 T-39 |
| 2 HC-130P | 1 RC-135 | |
| 2 EC-121T | | |



59 US Navy Aircraft

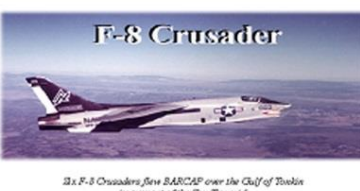
- | | |
|--------|----------|
| 27A-7 | 6 EKA-3B |
| 10 A-6 | 2E-1B |
| 6 F-8 | 1KA-3B |
| 6 F-4 | 1EP-3 |





57 USAF Aircraft

- | | | |
|---------------|-----------|---------|
| 2 MC-130E (I) | 12 KC-135 | 2 HH-3 |
| 1 HH-3 | 10 F-4 | 4 A-1E |
| 5 HH-53 | 5 F-105 | 3 C-130 |
| 5 A-1E | 2 RC-135M | 1 T-39 |
| 2 HC-130P | 1 RC-135 | |
| 2 EC-121T | | |



59 US Navy Aircraft

- | | |
|--------|----------|
| 27A-7 | 6 EKA-3B |
| 10 A-6 | 2E-1B |
| 6 F-8 | 1KA-3B |
| 6 F-4 | 1EP-3 |

