U. S. NAVY
in the Son Tay Raid

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Historians will remember the Son Tay raid as a well planned, carefully rehearsed and expertly executed military operation that succeeded in all of its tactical aspects, but failed to attain its principal objective of rescuing American soldiers held in captivity by North Vietnam. Plans for the prisoner of war (POW) rescue began under tight security with a small number of carefully chosen Pentagon planners in an abandoned building at Arlington Hall Station. Their initial plans continued to evolve at Eglin AFB in Florida where a special Joint Contingency Task Group (JCTG), consisting of volunteers from Air Force and Army Special Forces, trained secretly and intensively for a raid that would take place in the war zone half way around the world. Once ready, the raiders sneaked cleverly into Southeast Asia (SEA) under various pretexts and then executed their plan with unsuspecting assistance of many in theater units whose members were not briefed on the POW rescue objective of the operation in which they participated. Such strict secrecy and deception was necessary to ensure that the raid did not get compromised and that the well-prepared raiders were not sent out on a potentially suicidal mission.

Navy's Inclusion in the Raid

The U. S. Navy played a vital part in the Son Tay raid by staging a diversionary attack from the Gulf of Tonkin that caused the North Vietnamese air defenses to focus their attention away from the U. S. Army and Air Force raiders who sneaked in from the mountain ranges in the west. Navy's role began as a postscript to a briefing of the Joint Chiefs of Staff (JCS) and evolved into what became the largest nighttime naval operation of the Vietnam War. It involved many ships and 59 aircraft. Their crews were not aware of the purpose of the mission they were supporting.

U. S. Army Brigadier General Donald D. Blackburn, who served as the Special Assistant for Counterinsurgency and Special Activities (SACSA) to the Chairman of the Joint Chiefs of Staff, briefed the Chiefs on the Son Tay POW rescue plan on July 10, 1970. At the end of this briefing, a member of his staff, Air Force Major Larry Ropka, who was a principal player in Blackburn's feasibility study group for the raid, tossed in the idea for a possible diversionary naval operation in the Gulf of Tonkin. Admiral Elmo R. Zumwalt, Jr., who had just succeeded the new Chairman of the JCS Admiral Thomas H. Moorer as the Chief of Naval Operations (CNO), questioned the need for the diversion. Because he was so new at the helm of the Navy, the briefers did not know how to interpret his comments. They did not abandon their suggestion and soon learned that Admiral Zumwalt would defer to his commander in the Gulf of Tonkin, Vice Admiral Frederick A. Bardshar, with the caveat that the force generated for the diversion would have to fit within the available resources at the Yankee Station. Since the raiders planned

to bring in all the necessary personnel for the ground rescue operation, they were planning on mission support from in-theater forces with the same caveat that all provided assistance should not disrupt the normal conduct of their air war. Consequently, the follow on training and planning counted on the Navy to become a diversionary participant in the raid.

The Plan

The raid would be executed under the direct control of the JCS by a Joint Contingency Task Group (JCTG) led by Air Force Brigadier General LeRoy J. Manor. He was the Commander of the USAF Special Operations Force at Eglin AFB, Florida. His deputy was Army Green Beret Colonel Arthur D. "Bull" Simons from the Headquarters of the XVIII Airborne Corps at Ft Bragg, North Carolina. Planning and training for the raid began at Eglin AFB in late August 1970.

Date and time for the raid was very carefully selected to provide the raiders with optimum advantages for surprise and nighttime illumination. It would be executed 15 to 20 minutes after the 2:00 A.M. prison guard shift change when the rising moon provided about 35 per cent illumination. This lunar event would occur between the 20th and the 25th of October and then again during the same time frame in November. The first window in October lapsed because presidential approval for the raid could not be secured in time for the raiders to deploy and execute. Consequently, November became the target month and the raiders at Eglin AFB gained more time to train and polish up their tactics.

The raiding force would consist of 56 Special Forces and 62 airmen who trained at Eglin AFB and flew in two MC-130Es, five A-1E fighters, and six helicopters. One of the helicopters was a Jolly Green Giant HH-3E and five were Super Jolly Green Giant HH-53s. One of the C-130s would escort the low flying helicopter formation with Green Berets from Udorn Royal Thai Air Force Base (RTAFB) to the Son Tay prison. The other would guide the A-1E fighters from Nakhon Phanom RTAFB into the objective area where they would provide close air support protection for the raiders while they engaged the enemy on the ground.

Air Force Raiders

Air Force raiders had to resolve several significant air tactics problems before they could produce realistic plans and conduct appropriate crew training. Rescue of POW demanded stealth and maximum surprise to ensure that the enemy guards would not have time to harm any of their captives. Rescuers had to be flown to a pinpoint spot on the first pass of their flight. That required precision navigation that the C-130 Combat Talons could provide by leading formations of helicopter and propeller driven fighter aircraft. Their navigation was enhanced by the installation of a developmental forward looking infrared system on board of both Combat Talons. This ensured that the C-130 which would lead the helicopters to the POW camp (call sign Cherry One) would fly directly over it and drop four illumination flares to light up the area and destroy the night vision of the tower guards.

Nighttime formation flying over dark mountainous jungle terrain under blacked out conditions and without radio communications had not been done before. Yet, to arrive into the target area undetected by the enemy's radar required flying through the valleys and hiding behind mountain peaks. That type of flying was challenging enough for the Combat Talons. They had demonstrated it successfully over North Vietnam flying as single aircraft. But contemplated six and seven ship formations were something else. This new tactic required meticulous planning and an unprecedented aircrew discipline.

That was not all. Formation lead C-130s had to fly at minimum speeds to accommodate their slowest escorted aircraft. These air speeds were below the design limits of their terrain following radars. The first helicopter candidate that was small enough to make a landing inside of the prison courtyard was the U. S. Army's UH-1H Huey. It could cram in eleven combat ready Green Berets and fly on its own with a top speed of 87 knots. No C-130 can stay in the air flying that slow. So the Army and Air Force pilots experimented with a new drafting technique. They learned that if the UH-1H pilots could position their helicopter in a 5 degree nose down attitude and just above and little behind the left wing of a C-130 that flew at 105 knots with 10 degrees nose up and 70 % flaps, they could stay in a drafting mode and maintain the lead aircraft's airspeed. That amounted to old fashioned air show exhibition flying performed for holiday crowds. They made it work at night, eventually blacked out and without radio communications. But the first full dress rehearsal that had eleven troops flying for two and a half hours under these conditions convinced the planners that the UH-1H was not the proper way to go. The troops were so cramped up after the ride that they couldn't performed their well rehearsed roles inside of the courtyard within the prescribed times that had to be carried out in mere seconds. So the Air Force HH-3E that is 14 feet longer and has also a 14 foot

Assault Formation: MC-130E (Cherry One) with HH-3 (Banana) and HH-53(Apples).

greater rotor blade span, had to be substituted for the smaller Army helicopter. This meant that the HH-3E would have to chop up some tree limbs during its landing in the small 60x80 foot courtyard. On the plus side, this helicopter did not need as much drafting help from the C-130 and it could comfortably accommodate 14 troops that were actually needed inside of the yard. HH-3E's call sign was Banana. The other five helicopters of the Assault Formation, all HH-53 Super Jolly Green Giants, were called Apples One through Five.

Combat Talon that was to lead the A-1Es was called Cherry Two. The A-1E fighters were Peaches One through Five. This formation, known as the Strike Formation did not have a big air speed problem. It would fly at a fully fueled and combat loaded fighter speed of 145 knots. The only problem here was the 40 knot airspeed differential from the helicopter Assault Formation. Timing was critical. Both formations had to arrive at Son Tay at the same time as the slower helicopters. So, during the low level penetration into North Vietnam the fighter formation had to make sharper dog leg tracks along its route than the one with helicopters. There was also another reason why both formations had to stay close together. Cherry Two, escorting the fighters, was a backup ship for the helicopter escorting Cherry One. Should anything go wrong with Cherry One, Cherry Two would have to assume the helicopter lead in a hurry. Because of the fruity call signs the Joint Contingency Task Group's air fleet earned the name "Fruit Salad".

Strike Formation: MC-130E (Cherry Two) with A-1E (Peaches).

The rest of the air operations planning was much simpler. Cherry One would leave its formation 3.5 miles out of the POW camp, accelerate, and climb to 1,500 feet for a four flare drop directly over the compound. Apple Three became the Assault Formation's gunship. Her gunners, firing 4,000 rounds per minute Gatling guns, would arrive over the illuminated camp first, assaulting the guard towers and the main guard barracks. Then the Banana would land inside of the courtyard with fourteen raiders while Apples One and Two landed in a rice paddy south of the site with their Green Berets.

Both Combat Talon Cherries were tasked to provide distractions to the enemy on the ground by dropping napalm bombs, battle simulators and railroad type flares. Specially rigged napalm bombs would be dropped in pairs by parachute. They would explode on contact with the ground and their fuel would pool, providing 40 foot high flames that would attract attention of the North Vietnamese troops and serve as readily visible markers for orbiting A-1E Peaches. The specially designed fire fight simulators were targeted for bridge and highway intersections. They would also attract attention of enemy soldiers, causing them to believe that there were several areas under simultaneous attack. The long burning railroad flares would also produce unusual crimson fires that the enemy would have to check out. This would add to their confusion and cause delays in organizing their defensive response to the real target that was under attack by the raiders. The whole river basin, near and west of Son Tay, was the principal North Vietnam's military training area full of military installations of various sizes. During peak periods there could be as many as 80,000 troops within easy access to Son Tay. Raid's planners anticipated over 12,000 of them in the fall of 1970. Army planners estimated that they needed about 30 minutes to complete freeing the prisoners. Anything that could distract

the enemy from realizing what was actually taking place at Son Tay and delay their coordinated counter attack would help to give them this precious time on the ground.

The return home would be without a formation escort. Cherry One was programmed to orbit on the Laotian border from where it could provide direction finding radio steers to guide the departing Apples and Peaches out of the country. Banana would never fly again. Special demolition charge would ensure that this damaged HH-3E could never be made air worthy by the enemy. Cherry Two would become a radio monitoring, recording, and if necessary, transmission relaying platform orbiting west of the Red River within the line of sight of Son Tay. It would be the last one to depart after all the Fruit Salad aircraft were safely over the mountains and heading out of North Vietnam. From this location Cherry Two would high speed to another orbit over central Laos and provide direction finding steers for the slower Fruit Salad aircraft heading for recovery at Udorn.

Air Force raiders exercised their detailed plans and tactics in night flights over Florida, Georgia, and Alabama. They would be well prepared to execute the raid that was to take place with assistance of as yet unsuspecting friendly forces in the war zone that was half the world away. They needed area based helicopters and A-1E fighters without crews because they planned to bring only the two Combat Talons with them. Their helicopters would have to be borrowed from the 40th Aerospace Rescue and Recovery Squadron at Udorn and the A-1E fighters from the 56th Special Operations Wing at Nakhon Phanom. This, as well as the requirements for other supporting aircraft and crews, had to be engineered with very delicate care and secrecy after they deployed to their staging base at Takhli in Thailand.

Two HC-130P refueling tankers from the 39th Aerospace Rescue and Recovery Squadron at Cam Rahn Bay AB in the Republic of Vietnam had to deploy to Udorn to provide the helicopters with night time refueling over Laos on their inbound and outbound tracks.

Ten F-4s from the 432nd Tactical Reconnaissance Wing (TRW) at Udorn were needed to fly a two orbit MIGCAP (MIG Combat Air Patrol) high over Son Tay. Their high altitude presence was designed to accomplish two things. First, they were to be detected by the enemy early warning radar as they approached from over Laos. This early detection would focus attention on their intruding high altitude tracks while the low flying raiding formations would be sneaking into their country. Second, once in their designated orbits, they would deter the North Vietnamese from launching their MIGs during the raid's progress. Task Force's helicopters and A-1Es would be highly vulnerable to them.

Five F-105 Wild Weasels from the 388th Tactical Fighter Wing at Korat RTAFB would establish a surface to air missile (SAM) suppression orbit west of Hanoi and provide protection for the MIGCAP F-4s. They were to fire Shrike missiles at any SAM and anti aircraft artillery (AAA) radar sites that engaged them.

Eight KC-135 tankers from the 307th Strategic Wing at U-Tapao RTAFB would be in refueling orbits over Laos to support the fifteen F-105 and F-4 fighters. Two more tankers would provide refueling for Air Force and Navy aircraft over the Gulf of Tonkin.

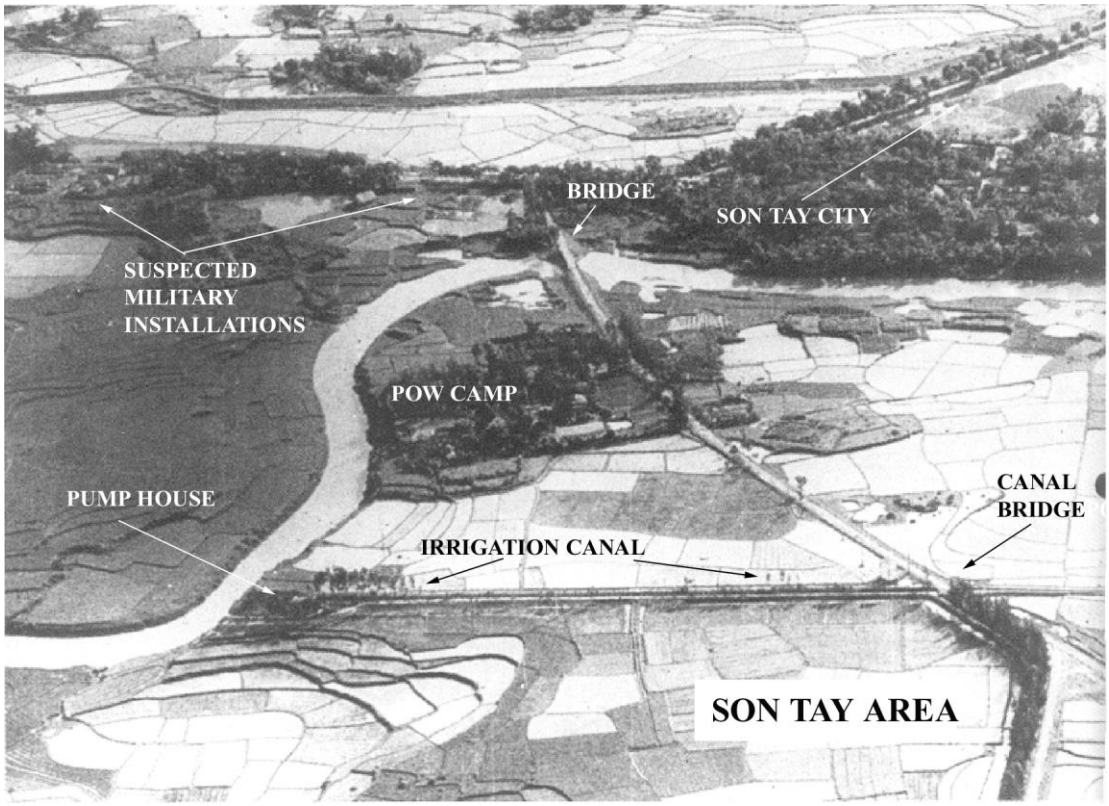
The Search and Rescue network with Jolly Green helicopters and HC 130P tankers at Udorn and with A-1E Sandys at Nakhon Phanom would be put on extra alert to anticipate earlier than normal first light rescue effort. (See Table 1 for the listing of all participating Air Force aircraft.)

To ensure that the China and North Vietnam Cross Border Air Defense System was placed in a state of confusion that would divert attention from the raiders, the planners incorporated Navy's Task Force 77 (TF-77) into the overall raid plan. It required the Navy to stage a fake attack against the city and the harbor of Haiphong by illuminating the sky with high altitude flares and simulating mining of the harbor with low flying aircraft. This diversion was scheduled to begin in the east before the Air Force fighters surfaced on the North Vietnamese radar screens entering from the west. The North Vietnamese would see evidence of two coordinated attacks that would cause them to defend with SAMs instead of their few night combat capable MIG-21s.

It must be pointed out that there was an ongoing bombing restriction on NVN territory that was declared by President Johnson on October 31, 1968. Hanoi and all of Vietnam north of the 19th parallel was off limits to our bombers. However, the Task Force's rules of engagement for the raid permitted the Air Force and the Navy to utilize air to ground missiles against enemy radar controlled SAM and AAA radar sites. Navy in the Gulf of Tonkin was specifically advised that there was no authorization for its aircraft to drop live bombs.[1] Consequently, the fully armed Air Force F-4s and F-105s and their Navy counterparts were not to initiate any attacks unless they acquired positive indications that they were targeted by the enemy and that they had to defend themselves.

Army Raiders

Son Tay POW Camp's geographical location made it an ideal target for the raid. Even though it was just outside a major city in a countryside that was replete with military installations, the camp was isolated enough to invite a daring rescue attempt. It was located between the Song Con River and a paved road that led into the town of Son Tay. It was just far enough west of the road to be easily disguised as a small farming settlement surrounded by rice paddies. A curve in the river blocked access to it from the west and north. A canal that went from the river and across the road provided isolation from the south. Enemy reinforcements would have to use the road on the east to respond to the attack on the camp. The site just begged to be invaded. If the raiders could get there without detection, they could clear the place in about twenty minutes and be out with rescued prisoners before any of the surrounding military installations could mount an organized opposition.



Aerial view of Son Tay POW Camp area.

The Army Special Forces plan proposed to form three groups to execute the rescue. The first group, code named Blueboy, would land in a helicopter inside of the POW compound, eliminate the guards and free the captives from their cells. This approach seemed imperative because it was the only way to ensure that guards, alerted by an attack on their camp, would not have time to execute any of the prisoners. The second group, Redwine, would seize the road bridge over the canal and secure the area south of the camp from which the helicopters would exfiltrate the raiders and rescued prisoners. The third group, Greenleaf, would provide security for the other two groups. Its troops would clear the area east of the POW compound and blow up the Song Con River Bridge. This would deny the enemy reinforcements' access to the raiders from the north and east. (Figure on page 9 depicts the basic assault plan.)

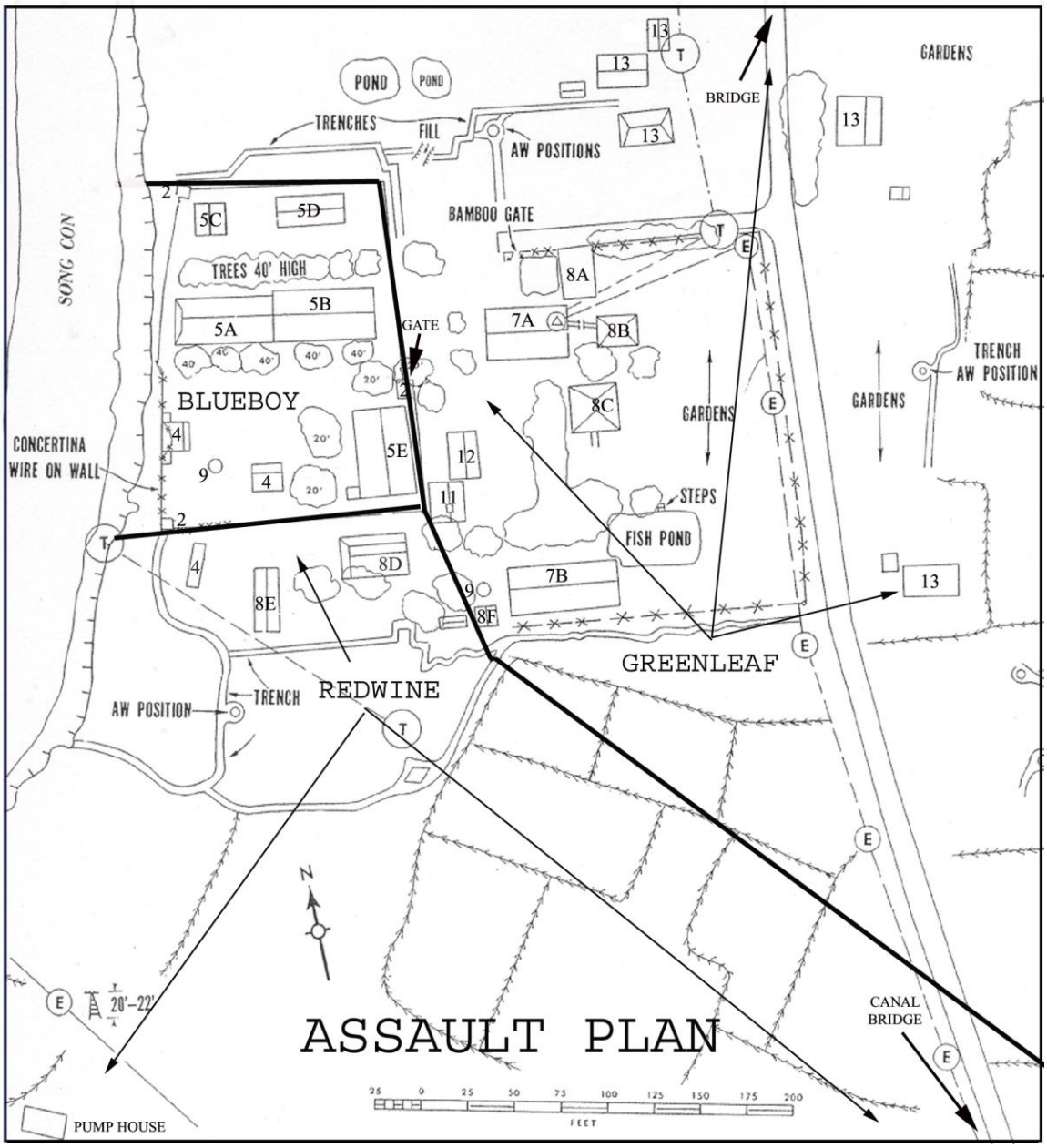
Meticulously detailed plans evolved from this simple three-group concept. Eventually, there would be a plan for each element of every group followed by specific tasking for each individual raider. Each man would have to know the roles and routes of other members of his team and be aware of what other elements on the left and right were expected to do in the same time frame during which he was carrying out his assigned duties. In addition each man needed to know how to respond to any alternate plans that could be forced upon the raiders by unexpected developments.

Special Forces trainers constructed a full scale layout of the Son Tay camp that had the exact geometry and dimensions of the real site. Foundations of every building

and of every wall were carefully staked out with 2x4 studs in the ground. Raiders draped yards and yards of cloth on these studs to simulate the walls. Numerous doors and windowsills were also constructed and mounted in proper places. Exact location of every tree and brush was identified and potted miniatures placed in corresponding spots. On the western periphery, raiders bulldozed a shallow trench with precise curve that simulated the Song Con River. The same was done to scrape out a road along the eastern side of the camp that ended at the bridge. A full scale mock-up of one section of the bridge was added there. They formed another trench that represented the irrigation canal on the south side. With all of this detail, each man could advance and count the number of steps he needed to take from one established position to the next. As elaborate as this site was, it was surprisingly small. The entire camp area from its southernmost buildings to the bridge would contain only three football fields laid on the side and stacked south to north.

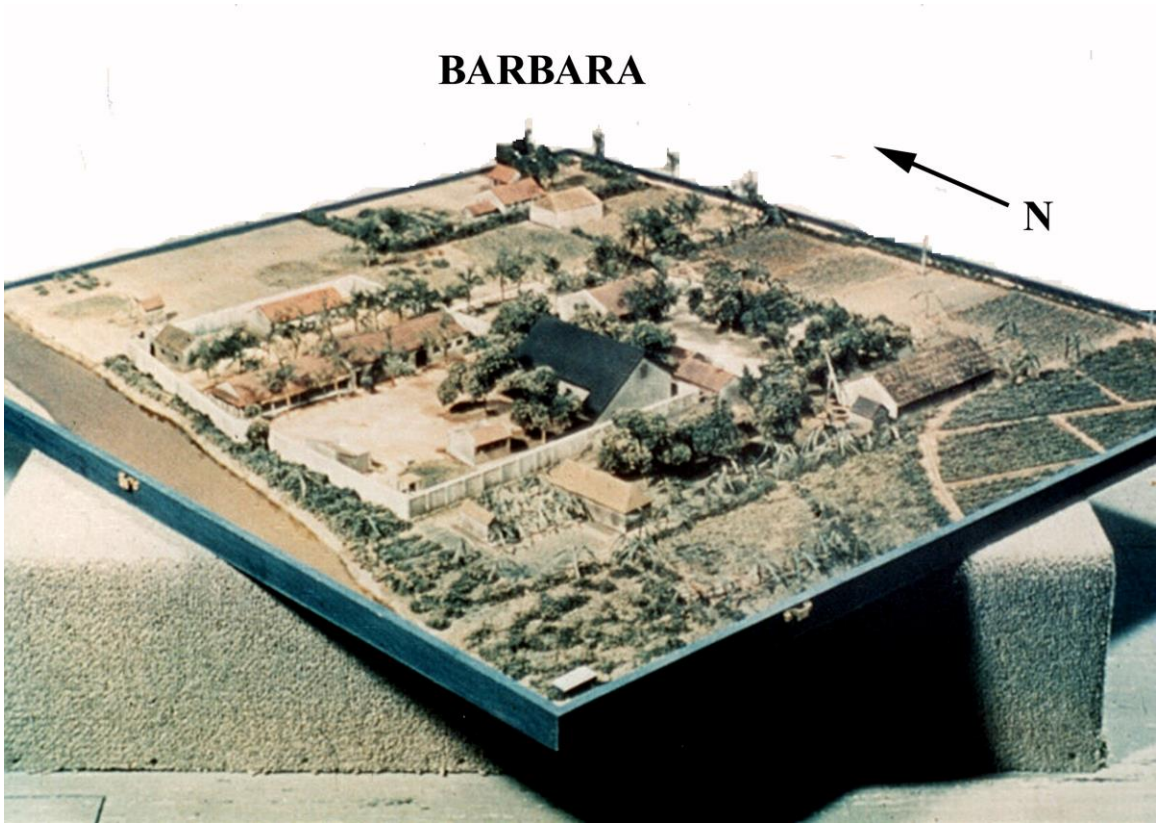
Special Forces planners were blessed by a very unique tabletop model of the Son Tay prison that was produced by the best talents of the Central Intelligence Agency. This elaborate model of the prison was code named “Barbara”. Study of this model required a special optical viewing device that could be placed anywhere inside of it. When one looked through its precisely scaled eyepiece the scene would be magnified to life size and the viewer would find himself standing at any selected spot inside of the prison compound. (Photograph of Barbara is on page 10.)

Nothing was left to chance. The ground assault planners conceived three alternate plans. Each one assumed that one of the helicopters did not make it to the objective area and that the rescue would have to be done by the two remaining groups.



POW Camp Facilities

2 Guard Towers	5E Cat House	8F Duck Pen
4 Latrines	7A Administration Bldg.	9 Water Well
5A Beer Hall	7B Guard Quarters	11 Kitchen
5B Opium Den	8A Support Bldg.	12 Guard Mess Hall
5C Outhouse	8B Communications Bldg.	13 Staff Quarters
5D Stag Bar	8E Animal Stable	



Son Tay POW Camp model "Barbara"

Plan Blue, assumed that something happened to the Blueboy Group on board of the HH-3 helicopter. The other two groups, Redwine and Greenleaf, would have to adjust to execute the rescue without them. Redwine Group would have to enter the prison compound over and through the walls and free the prisoners while the Greenleaf troops executed tasks assigned to them and their Redwine colleagues.

Plan Green covered a contingency in which the Greenleaf Group's helicopter did not make it all the way in. In this case, the Redwine Group would have to clear the surrounding buildings, provide its own perimeter defense, and blow up the Song Con River Bridge.

Plan Red assumed that the Redwine Group, with the raid's commander Bud Sydnor, failed to reach the objective area. Then the Greenleaf troops would have to split and clear the guardhouses and buildings outside of the walls in addition to providing their own outer perimeter defense.

Because Brigadier General Manor operated under the direct control of the Joint Chiefs of Staff in the Pentagon, he needed a special direct link up with the National Military Command Center in Washington D.C. Special command and control arrangements had to be made to permit him to monitor the raid from the Tactical Air Control Center North Sector (TACC-NS) at Monkey Mountain outside of Da Nang.

Navy Planners in Washington

The initial group of fifteen Son Tay feasibility study planners assembled by SACSA on June 10, 1970 had only one Navy officer. He was a Navy SEAL Lieutenant Theodore A. Grabowsky. He participated in proposing the initial rescue concept that also identified the ground force needed to raid the prison compound. Once it was determined that the task would be assigned to the Green Berets, his expertise as a Navy SEAL was no longer needed.

After the JCS endorsed the rescue plan on August 8, the original planning group was expanded to twenty-seven. Captain William M. Campbell and Lieutenant Commander Clair R. Hershey, both from the Chief of Naval Operations Office, joined this new group. Lieutenant Commander Hershey provided the planners with special weapons expertise and Captain Campbell became Admiral Zumwalt's liaison with the group. He provided his boss weekly updates on JCTG activities and on the progress of planning and training at Eglin AFB. Naval diversion planning would not begin until the JCTG was ready for deployment to Southeast Asia.

CINCPAC's Role in the Plan

Admiral John S. McCain, Jr., Commander in Chief Pacific (CINCPAC), whose Navy pilot son had been a POW for almost three years, came to Washington. Brigadier Generals Blackburn and Manor briefed him in on the rescue plan on the 25th of September. McCain knew that his son was not at Son Tay but in some other prison in downtown Hanoi. He believed that the POW rescue would work and gave the plan his enthusiastic support. He promised Blackburn to ensure maximum security for the plan within his command and ruled that only one other person in the PACOM Headquarters, his own Chief of Staff, Army Lieutenant General Charles A. Corcoran, would be read in on the plan. He wanted Manor to work directly with the Commander of Task Force 77 (CTF-77) in the Gulf of Tonkin. This commitment was kept and the CINCPAC staff that was running the war in Vietnam was kept in the dark about the POW rescue.[2]

Carrier Availability

Blackburn was getting ready to travel to Vietnam with Manor and Simons to present their plan to the key wartime leaders when he discovered a significant glitch in the reliance the planners placed on the Navy diversion in the Gulf of Tonkin. Mid-November was the time period when the TF-77's aircraft carriers were scheduled for replacement by newcomers from the States. He did not want this to go on during the established moon phase window. Nor did he want pilots that had just arrived in the theater and lacked seasoned experience in the Gulf of Tonkin environment to undertake a highly sensitive support mission. He took this dilemma to his boss Air Force Lieutenant General John Vogt, the JCS Director of Operations. Not understanding the ties between the aircraft carriers and their air wings, Blackburn suggested that pilots of departing USS *America* (CVA-66) be transferred to the USS *Ranger* (CVA-61) at Subic Bay in the

Philippines so that her area-experienced aviators could fly from the *Ranger's* deck once that carrier got to the Yankee Station. He also wanted the Navy to accelerate the arrival of aircraft carriers USS *Ranger* and USS *Hancock* (CVA-19) at Yankee Station and to delay the departure of USS *Oriskany* (CVA-34) until after the completion of the raid. Vogt assured Blackburn that he would get the problem fixed.[3] Blackburn took him at his word and then, in spite of his sudden concern over this planning oversight, he did not even mention it to Manor and Simons while he accompanied them during their long trip to Vietnam.

With that glitch, the concept of supporting the raid with resources readily available in the Gulf of Tonkin was put to the test. Normally, TF-77 had three assigned carriers under its operational control. Of these three, one could be at Subic Bay undergoing routine maintenance with its staff performing shore duties and enjoying well deserved rest and recuperation (R&R) from the war zone. Also one could be sent out to conduct a naval operation within the 7th Fleet's domain that could entail no more than an occasional show of the U.S. flag in some foreign port. Such scheduling did not degrade the capability of the Navy to wage the war with only two on line carriers. What Blackburn and the JCS saw in Washington was that there were only two carriers in the Gulf at the time of this scheduling discovery and that the USS *America* was about to depart on 8 November, leaving the USS *Oriskany* as the lone carrier until the arrival of the USS *Hancock* and the USS *Ranger*. *Hancock* departed North Island Naval Air Station (NAS) on 22 October and the USS *Ranger* left Alameda NAS on 27 October 1970.[4] There was sufficient time for both carriers to get there, but the JCS sent a message to CINCPAC concerning this matter anyway. The text of this message is not recalled by anyone involved in the search for its content more than 30 years later, but it generated some concern in Hawaii. The Commander of the Pacific Fleet questioned McCain's Chief of Staff about the reason for Washington's sudden interest in the carrier deployment schedule. Corcoran, the only other officer at CINCPAC that was read in on the raid plans, told him to trust the received orders and to follow them.[5]

The carrier rotation schedule was Bardshar's problem to address. He would see to it that he had three carriers on station by the 21st of November. He would not let any of them sit at Subic Bay, or sail anywhere else, and miss the action that had such potential effect on the conduct of the war. The USS *Oriskany* was already at Yankee Station and could be delayed there. The USS *Hancock* would become the 7th Fleet's asset after crossing the International Date Line on 7 November. He could manipulate her schedule once the carrier showed up at Subic Bay. The USS *Ranger* was going to join the 7th Fleet four days later.[6]

Coordination in Hawaii and Saigon

Blackburn, Manor and Simons departed for Vietnam on 1 November 1970. They stopped in Hawaii to brief Admiral McCain and Lieutenant General Corcoran. They were ready to execute the rescue mission and were prepared to include the Navy on its details specifying the type of diversionary support they needed from the CTF 77 in the Gulf of Tonkin. McCain stressed that only those five present at their meeting were to know about

the rescue plan and that thereafter they should deal directly with the Task Force commander Vice Admiral Bardshar and his staff. He was specific about bypassing the Pacific Fleet on the island and the 7th Fleet at Yokosuka, Japan whose commander, Vice Admiral Maurice F. Weisner, was Bardshar's boss. McCain offered the trio his personal C-118 in which they continued their journey to Saigon.

Admiral McCain alerted the Commander of the U. S. Military Assistance Command, Vietnam (MACV) General Crayghton Abrams, about the visitors who were coming in his C-118, but he did not say anything about the purpose of their visit. Abrams sensed its importance and met them immediately along with his Deputy, General Lucius D. Clay, who was also the Commander of the 7th Air Force, and his Chief of Staff, Army Lieutenant General Welborn Dolvin. Abrams was very attentive and eager to participate in the rescue effort. He was sadly disappointed when he learned that the raiding force was already fully staffed and that he would have no control over it because Manor and Simons were working directly for the JCS in Washington. The only support the two raid leaders would need would have to come from the Air Force and the Navy. Abrams turned to Clay and urged him to give Manor full air support.[7]

General Clay summoned his 7th Air Force Vice Commander General Ernest Harding and Brigadier General Darrel Cramer for a briefing by "Bull" Simons. Clay stressed the need for security that mandated strict person-to-person contact on mission coordination and gave the job to Cramer. Cramer then proceeded to visit all wing and unit commanders who would later receive members of Manor's planning staff with requests to support a mission whose location and purpose they should not question.[8]

Cramer's first task was to arrange transportation for Manor and Simons to the Yankee Station for a meeting with Bardshar. Blackburn would not go with them. He returned to Washington to handle the matters from there. Final approval for the raid had not yet been received from President Nixon.

Coordination at the Yankee Station

Vice Admiral Frederick A. Bardshar, his Chief of Staff, Captain Jack S. Kenyon, Sr. and the TF 77 Intelligence Officer, Commander P. D. Hoskins greeted Manor and Simons aboard of aircraft carrier USS *America* on November 5. They were extremely pleased by their reception and Bardshar's eagerness to participate. Manor recalls Bardshar volunteering more than just a diversion. He has him saying: "How about letting me help you in the objective area?" Manor replied: "I don't need your help there. I've got everything all set up for the objective area, but if you will put this feint raid against North Vietnam, it'll be a tremendous help. This will be on the night of the 21 November."[9]

No one said anything to Manor and Simons about the carrier rotation schedule. They were not aware of it and the Task Force staff felt that it would not be a problem. The two spent the night on Bardshar's flagship and then returned to Florida to witness the deployment of the JCTG to Takhli RTAFB.

It appears that the Joint Chiefs in Washington were not marching in step with the traveling trio. They dispatched Navy Captain William M. Campbell from the CNO's office to hand deliver Manor's Operation Kingpin plan to Bardshar. The Chairman of the JCS, Admiral Moorer sent a personal encrypted message to Bardshar to meet Campbell in Da Nang and receive something of interest for him. Commander P. D. Hoskins, the TF 77 Intelligence Officer, was present when Bardshar received the message and because the Task Force's Operations Officer, Captain Allen E. "Boot" Hill, had not yet returned from his temporary duty in Washington, he promptly invited Hoskins to accompany him to this intriguing meeting.[10] Campbell delivered the Operation Kingpin plan on 7 November, 1970 not knowing that Manor and Simons had met with Bardshar at the Yankee Station two days earlier.[11] Bardshar and Hoskins did not reveal this prior meeting to him. Campbell sensed that the two already knew something about the POW rescue plan, but delivered his carefully thought out presentation that stressed the security considerations, which limiting the number of Navy officers who knew and who were authorized to know about the POW rescue plan.

Planning for the Diversion

Participation in the raid was the best thing to come along for the Navy since the bombing pause that had been in effect since October 31, 1968. Finally, even though the bombs were still prohibited, Bardshar's airmen would be able to at least put on a deserving harassing show of force against the enemy.

The USS *America* completed her scheduled rotation at Yankee Station on 8 November and began her long return to Norfolk, Virginia. She stopped at Subic Bay in the Philippines and left Bardshar's entire staff ashore to wait for the arrival of his new flagship the USS *Kitty Hawk*. When Captain "Boot" Hill joined them after his return from Washington D. C., he was immediately put in charge of planning with close assistance from Hoskins. They assembled a team of ten planners that included specialists in Surface Operations, Air Operations, Communications, Combat Information Center (CIC) and other combat operations fields. They did their planning in the Fleet Intelligence Center, Pacific Facility. They made arrangements for the *Hancock* and the *Ranger* to be on line to participate in a credible diversion ordered by Bardshar.[12] The *Hancock's* scheduled arrival at Yankee Station was no problem. The *Ranger's* arrival had to be moved up by shortening her normal stay at Subic Bay. The *Ranger* would stop there just long enough to pick up critical supplies that awaited her at the docks and then continue westward with orders not to submit move reps about her departure for Yankee Station. Move reps would surely alert all receivers of such message that the *Ranger* was urgently needed in the Gulf for some operational reason. Consequently, only those who were there to observe it would note the *Ranger's* early departure from Subic Bay.

None of the assembled planners were told the purpose for the diversion. Nevertheless they prepared an elaborate plan for an attack against Haiphong that would confuse the North Vietnamese air defenses long enough to permit the Air Force to conduct a highly classified operation somewhere west of Hanoi in an area where bombing had been prohibited by a presidential order. They knew this much because the

plan they produced made specific references to Air Force support aircraft that would be sharing their airspace over the Gulf of Tonkin. Also, all the Navy aircraft were supposed to limit their operations to airspace east of the 106-10 East Longitude. Nothing was ever said in their plan about a ground operation that would be conducted by the Army Green Berets. Planners were puzzled and disappointed by the restrictions on ordnance that their aircraft would be allowed to carry. Only four A-7s from USS Ranger would be armed with Rockeye cluster bombs and 20mm cannon ammunition. Their specific task would be to provide air to ground fire support for helicopter rescue attempt if someone got shot down. Then, just before the actual mission launch, Bardshar authorized installation of Shrike radar homing missiles for use by the six A7 Iron Hands against SAM and AAA radars. Navy planners did not know this, but the Air Force would be employing the same Shrike air–to-surface missiles on board of its five F-105D Wild Weasel aircraft that would perform the same SAM and AAA suppression tasks in the west.

As "Boot" Hill related more than 30 years later, Bardshar encouraged them to orchestrate a very credible diversion from three carriers that would shake up the NVNs who had enjoyed immunity from bombing north of the 19th parallel. Their mock attack plan turned out to be the largest nighttime naval operation of the Vietnam War that excited even the Chinese at whose doorsteps the attack took place. It was much bigger and more convincing than the diversion anticipated by the Air Force planners. The Air Force planners hoped to see the Navy launch about the same size fighter force that they planned to launch from Thailand – ten MIGCAP F-4s from Udorn RTAFB and five SAM and AAA radar suppressing F-105D "Wild Weasels" from Korat RTAFB. They underestimated the Navy's resolve to contribute to the POW rescue effort.

The size of the diversion evolved naturally from Bardshar's desire to have a convincing show of force. His planners opted for a three-track attack. One attack track of six A7s would fly north of Haiphong, skirting the prohibited Chinese buffer zone. The second track of eight A7s would cover the islands east of the city. The third track of eight A6s would simulate mining of the city's harbor. These 22 attack aircraft required Target Combat Air Patrol (TARCAP) and MIGCAP flown by six F4s. Six A7 Iron Hand aircraft were needed to provide protection from SAM and AAA radars that would target the growing number of aircraft off the coast of North Vietnam. Thirteen refueling tankers would be needed. Six of these, EKA-3Bs, would perform an additional role as electronic countermeasures jamming platforms. Four A7s would be airborne to provide Rescue Combat Air Patrol (RESCAP). Four F8s were tasked to provide Force Combat Air Patrol (FORCECAP) to protect the approaches to the Yankee Station. Two F8s would fly Barrier Combat Air Patrol (BARCAP) for the Air Force's Combat Apple RC-135M. Finally, two E1B radar platforms would provide airborne flight following for all the aircraft over the Gulf of Tonkin. So the planners put together a force of 59 aircraft that surpassed by two the total raid and support aircraft launched by the Air Force. They came from three carriers: twenty-seven from the USS *Oriskany*, thirty from the USS *Ranger*, and two from the USS *Hancock*.[13] (See Table 2 for listing of all Navy participating aircraft.)

This diversionary strike would no doubt be the last significant mission for the *Oriskany* whose rescheduled departure date was 29 November. Very clearly, this would be the first nighttime mission for aircrews from the *Hancock* and the *Ranger* that were coming on line at Yankee station on 20 and 21 November. "Boot" Hill and his planners were not aware of Blackburn's preoccupation with having fully experienced aircrews to fly in the diversion. It was a non-issue at Task Force 77. Newcomers from the *Ranger* and the *Hancock* were veterans of prior tours at Yankee Station and they were ready upon their arrival. "Boot" Hill recalls that the *Ranger* had been absent from the Station for only about four months before returning back with many of the same people on board. Bardshar had full confidence in the competence of aircrews to undertake this task even on their first mission in the Gulf. So even though Blackburn would not get his full wish, the operation was in able hands and Bardshar had three carriers on line.

Captain Kenyon had the best answer to aircrew combat readiness concerns that he expressed almost 32 years later:

> "Aircraft carriers and air wings deploying to the Pacific undergo a thorough operational readiness inspection in the Hawaiian Sea operating area en route to West Pac. Individual pilots, and the ones who would logically be assigned to participate in the diversionary mission, were second, third and fourth tour returnees to the Gulf of Tonkin. In all probability, this would NOT have been the first night time mission in the area for aircrews from *Hancock* and *Ranger*; the first in some cases for that specific deployment but most probably not the first in their overall experience. The success of their efforts should have alleviated any concern General Blackburn had regarding their individual or collective experience."[14]

Task Force - 77 Operations Plan for the Diversion

Bardshar signed and sealed the carefully orchestrated operations plan for the diversionary strike against Haiphong. It was a short document that gave clear execution instructions to each participating ship and air squadron without revealing the purpose for the diversion. It stressed the need for extreme security and left no doubt that Bardshar himself would be the only one who could authorize news releases about the diversion.

The following excerpts from the plan are interesting and worth quoting:

> a. General. A special operation will be conducted by a Joint Contingency Task Group in the near future. It will be supported by elements of TF-77 whose function is to crate a diversion in order to assist in the successful execution of the basic mission. Security considerations prohibit full disclosure of the exact nature and timing of the operation. However, the guidelines listed herein are sufficient for you to perform your assigned function. Should any questions arise concerning the conduct of this operation, they will be directed to me personally by courier whenever possible. Electrical transmissions of messages concerning this operation are discouraged.

b. Background. Experience has shown that a large naval air attack in the Haiphong and northeastern NVN area can confuse and saturate the enemy's air defense organization and draw MIGs in a defensive reaction to the apparent attack.

c. Concept of Operations. The primary purpose of this operation is diversion. It is therefore doubtful that political considerations will permit the expenditure of air-to-ground ordnance other than flares. Within these limits, the objective is to create as much confusion in the NVN Command and Control System as possible. In order to accomplish this objective, the Navy effort will consist of two waves of approximately fifteen strike aircraft, each wave conducting simulated missions over NVN while other Task Force 77 aircraft are positioned for force defense, EW support, and in-flight refueling as required.

(----------)

l. Rules of Engagement. The following rules of engagement are in effect once forces have actually been committed in support of this operation and until it has been terminated or cancelled.

(1) Any aircraft over NVN or the GOT attacking or acting in a manner which indicates with reasonable certainty an intent to attack friendly forces in this operation will be engaged. All detected tracks over NVN North of 20N, which meet these criteria, will be classified as "confirmed hostile". Current rules of engagement will apply for those air contacts detected south of 20N.

(2) No pursuit is authorized into the territorial seas or airspace of Communist China.

(3) USN aircraft. CAP or Strike, will, under no circumstances proceed west of 106-10E when north of 20-00N.

(4) No air to ground ordnance is authorized with the exception of the flares carried by Strike aircraft and the Rockeyes/Guns carried aboard RESCAP. (Later modified to permit firing of Shrikes at SAM and AAA radars.

(----------)

m. Command and Signal.

(1) Commander, Joint Contingency Task Group, under the operational command of CINCPAC, and located at Monkey Mountain, has overall authority for the conduct of this operation.

(2) CTG 77.00 is CCD-7 in USS Oriskany.

(3) CTF 77 located in USS Oriskany will exercise overriding authority for the conduct of the Navy diversionary effort as directed by the CJCTG.

(----------)

n. Administration and Special Instructions.

(1) Once this plan is opened by the designated addressees, disclosure of such portions as necessary to accomplish your assigned mission is authorized. Such disclosure will be restricted to those with an absolute need to know and will be accomplished as late as possible in order to minimize the chances of compromise. Once this plan has been opened, no personal mail will leave your unit and personnel will be transferred only in emergency cases until the operation has been terminated or cancelled.

(----------)

(4) USAF aircraft will be operating in the Gulf of Tonkin and over NVN during this time frame. Air Force aircraft over the Gulf of Tonkin will consist of the Luzon RR relay, Combat Apple, a KC-135 tanker, and two College Eye EC-121 aircraft in the vicinity of 19-30N/106-40E. Additionally, USN aircraft will have IFF on at all times. Therefore an inoperable IFF is cause for aircraft abort.

(5) No public statements regarding this operation are permitted even after its completion, unless specifically authorized by CTF-77 IAW directives received from higher authority. Additionally, press and other visits to units involved in this operation are to be discouraged whenever possible, provided that such incidents will not lead to unnecessary speculation. Refer all decisions on these matters to CTF-77.[15]

Return to the Yankee Station

Manor and his staff were not aware that Bardshar had gone to the Cubi Point Naval Air Station (NAS) in the Philippines. They assumed that he remained at the Yankee Station aboard the USS *Oriskany* that became the only remaining carrier in the war zone after the departure of the USS *America.* The USS *Oriskany* was Rear Admiral James D. ("Jig-Dog") Ramage's flagship. He assumed command of TF-77 while Bardshar was ashore in the Philippines. All planning for the diversion was completed and two new carriers, the USS *Hancock* and the USS *Ranger* were headed for the Gulf of Tonkin. It was time for Bardshar to return to the Yankee Station and prepare his Task Force for the diversionary attack against Haiphong.

Bardshar and a few members of his staff were ready to depart from the Cubi Point NAS early on Thursday morning, 19 November, when they received Manor's coded message that the POW rescue mission had received approval in Washington. All was cleared for the launch from Thailand on the night of 21 November and from the Yankee Station just after midnight on 22 November. Bardshar's entourage flew to USS Oriskany in a C-2A Carrier On-board Delivery (COD) and the ship's deck log shows them arriving at 12:39 P.M., recording that: "Commander Attack Carrier Striking Force Seventh Fleet, VADM Bardshar, USN broke his flag in this ship". [16]

Completely surprised "Jig-Dog" Ramage remembers well what followed:

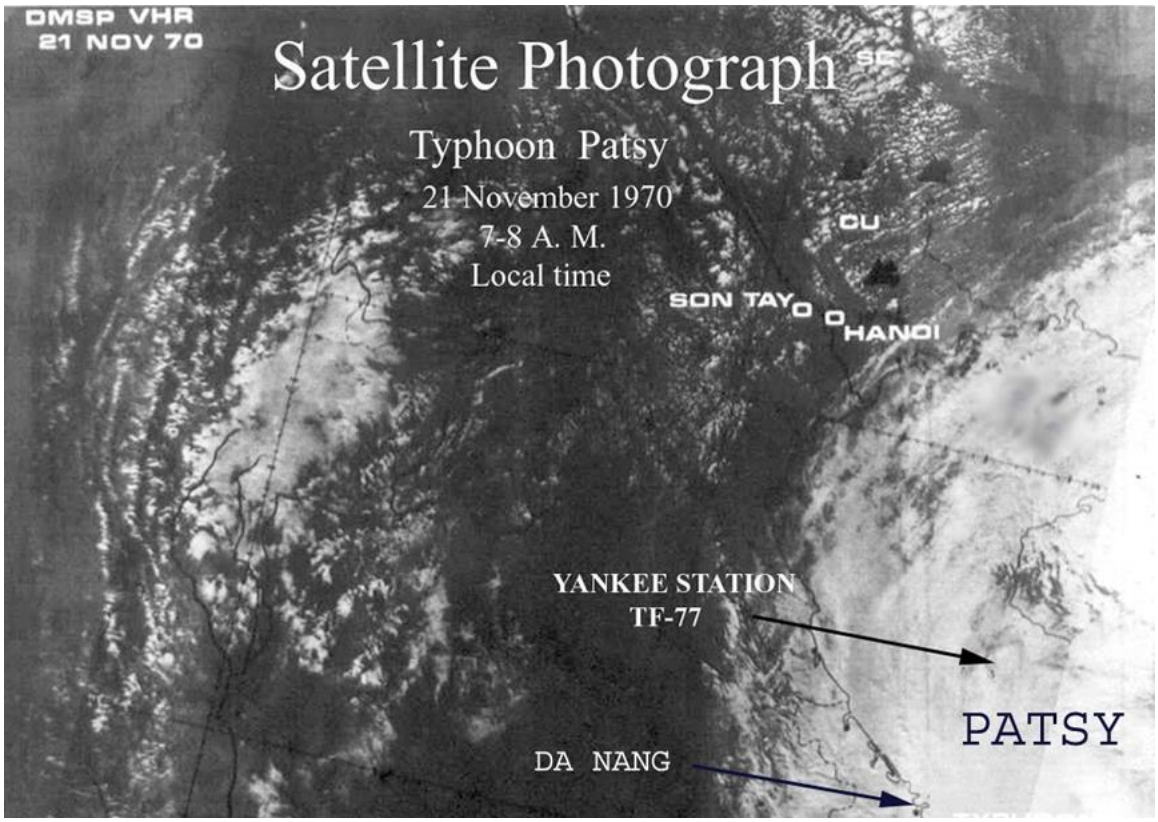
During 1970, as Commander Carrier Task Group 77.0, I was in tactical command of strike operations from Yankee Station in the Gulf of Tonkin. VADM Fred Bardshar, Commander Striking Force Seventh Fleet (CTF-77), was not in the Gulf. When he landed aboard USS *Oriskany* (CVA-34) in a C-2 COD originating from NAS Cubi Point, Philippines, he immediately followed me down to my cabin accompanied by his operations officer, CAPT Allen "Boot" Hill, and his intelligence officer, CDR P. D. Hoskins. I hadn't the slightest idea why ADM Bardshar was on board, but I knew that whatever he had on his mind had to be of extreme importance. After he closed the door, he began by saying that what he was about to tell me was so highly classified that it had to be passed to me in person. There was to be no electronic communication on the subject. He continued: "We are going to cover an attempt to rescue some prisoners in North Vietnam." I was elated. We really hadn't done much in the North since President Johnson had placed the northern and most vital parts of NVN off limits in 1968. All I could comment was, "It's about time!" Fred then said that the raid was to take place after midnight on 22nd of November. Task Force 77's job was to operate aircraft east of Hanoi, mainly around Haiphong, to keep the attention focused to the east and draw off any enemy reaction to the prisoner recovery operations in the Son Tay area. We would have authority to return fire against enemy opposition – another bit of good news.

Fred then added, "Unfortunately, this operation is so highly classified that you can't tell your aircrews what it's all about." I responded, "What kind of nut do you think the pilots would take me for when I order about a hundred planes out at night without giving them a good reason?" Fred then said that he understood my position clearly, and that I could use my own judgment – which I did. I then pointed out that since he was senior and on station that perhaps he might want to take tactical command. Bardshar said, "No, it's your show, run it." [17]

Typhoon Patsy was moving in from the east casting serious doubts on Navy's ability to execute the diversion as planned on the target date. Patsy was already ravaging the Philippines and the Associated Press reported it as the strongest typhoon to hit the islands in a century with peak winds in Manila ranging from 93 to 124 miles an hour.[18] This development troubled Manor at Takhli. Patsy would soon be moving over the Gulf of Tonkin and most certainly jeopardize planned TF-77 operations. So, at 4:11 P.M. on 19 November he notified the National Military Command Center (NMCC) in Washington, CINCPAC in Hawaii, and Bardshar at the Yankee Station that a delay due to weather was possible.

Critical weather decision to delay for 5 days or to launch one day early rested with Manor alone. He consulted with his weather experts and concluded that Saturday night November 21 did not look good. A delay of five days had security complications. Too many people had just been given too many mission details. He decided to launch one day early on Friday the 20th. At 3:56 A.M. he notified the NMCC in the Pentagon and the CINCPAC in Hawaii that the raid would be advanced by 24 hours. Bardshar's notification followed thirty minutes later. [19]

Satellite photograph of typhoon Patsy that was taken about six hours after the raid, shows clearly that the TF-77 diversion would have been impossible on the night of the 21-22 November.



Weather satellite view of North Vietnam and the Gulf of Tonkin

Pre-launch Preparations

Captain "Boot" Hill had a busy day after his arrival at Yankee Station. He flew in a helicopter from one carrier to another and briefed more than a dozen quickly assembled key staff officers about the unusual mission they would be flying on the night of 21-22 November. On the USS *Oriskany* he briefed the skipper Captain Frank S. Haak and Carrier Air Group 19 leader, Commander Douglas F. Mow, along with several squadron commanders and selected staff members. On the USS *Ranger* he did the same with her skipper Captain J. L. Coleman and Carrier Air Wing 2 commander, Captain J. E. Knight. On the USS *Hancock* it was Captain T. C. Johnson and Carrier Air Wing 21 commander Captain Gary H. Palmer. These seasoned combat pilots were puzzled by the strange mission ahead of them, but sensed that it was something very significant. Now on the morning of 20 November they got the news that Hill's mission would be flown 24 hours early because of the weather.

Vice Admiral Bardshar forbade all those who received Hill's briefing on the diversion to fly on any kind of mission until the diversion operation had ended. This was in spite of the fact that none of the commanders involved knew what the diversion was for. Retired Rear Admiral Bruce Boland, who in 1970 commanded the VF-24 squadron on the USS *Hancock*, remembers Hill's briefing that he attended with Captain Palmer: "I recall that he told us that he could not say why we were doing this operation but when it was over we would all be proud of being involved in it. He was right!!!"[20]

Captain Hill's briefing was enough to explain to the key staff members of the USS *Ranger* why they had to cut short their stay at Cubi Point and why they had to rush to the Gulf ahead of their scheduled on line time. It also answered the question why the scheduled departure of the USS *Oriskany* was being delayed until the 29th of November. This sudden change disappointed many. Lieutenant Russell Clayton York, Operations Scheduling Officer of VA-155 recalls that many Navy wives at Alameda NAS, *Oriskany's* home port, held "off the line parties" on 20 November to celebrate the end of their husbands' tour in the war zone.[21]

Carrier skippers and flying unit commanders were not the only ones that needed to be notified in person about the strange mission that would unfold that night. There were several support ships whose participation was required. One of these was USS *Wainwright* that had just arrived on station from its prior mission off the coast of Korea. Her Assistant Communications Officer Ensign Michael W. Anglin relates the following account in his memoirs:

> I think it was only a few hours after we had arrived at our position in the Gulf of Tonkin, that the ship was visited by a high-ranking staff officer of the Task Force 77 Commander. He came on board, I think via helicopter, and he and Captain Vining went directly to the Captain's cabin and talked for about 20 minutes. He then left
>
> That evening at 7:00 o'clock, just before the movies started up in the Wardroom and on the mess deck, the X.O. came over the loudspeaker. "Gentlemen, this is the Executive Officer. Tonight the Wainwright will be engaged in operations anticipated to evoke a hostile response from the North Vietnamese. We will go to General Quarters at midnight. That is all."
>
> Needless to say, the movies never got watched. Everyone quietly disappeared to their work or bunking areas and started really checking those life vest light batteries. For all we knew, the President had decided to reinstate the bombing of North Vietnam and we had shown up just in time to get in on the opening strike.
>
> We were at General Quarters all night, waiting for the counterattack that never came. The bombers from our four carriers launched on schedule, flew north to our position in groups of 6 and 8, checked in with our controllers and headed for North Vietnam. [22]

The USS *Wainwright* was a sophisticated, technologically up-to-date floating air traffic control facility of the Vietnam War era that had the capability to control and direct air combat operations. She was a cruiser armed with Terrier missiles and served as a PIRAZ ship (acronym for Positive Identification Radar Advisory Zone). Her call sign in the Gulf of Tonkin was "Red Crown". She was linked with other ships through Naval Tactical Data System (NTDS) that provided their Combat Information Centers with real time displays of covered airspace. PIRAZ ship's basic function was to provide positive identification and tracking of any aircraft within its own radar coverage as well as from space covered by tied-in airborne surveillance radars on E-1Bs. More than dozen radar operators with computer consoles could maintain around the clock vigilance and provide needed advisories to as many as 150 aircraft. These could vary from normal flight following to attack warnings and vectoring of friendly fighters for intercepting and destroying enemy aircraft. They could assist aircraft by steering them to tankers for airborne refueling and provide vital inputs for rescue of downed crewmembers. Any ship equipped with NTDS could selectively monitor any desired activity in real time, just as it was happening with updates from each new sweep of *Wainwright's* radar antenna.

Newly arrived radar controllers would earn their pay that night. During a period of more than two hours they would track unprecedented numbers of blacked out and radio silenced Navy and Air Force aircraft that would fly multiple tracks overland north of Haiphong and over the Gulf of Tonkin. Their tracks would have time and altitude separations, but they would cross over each other in various congested locations. They would have to be alert to monitor not just the moving targets across their radar scopes, but also pay close attention to the coded altitude data squawked by each aircraft's IFF (Identification Friend or Foe) transmitter.

There would be significant traffic congestion during aircraft launches and recoveries. Each carrier needed air traffic control services equal to a relatively busy mainland airport. That night there would be three such airports within a one-degree square box that comprised the Yankee Station. (At the 19th parallel one-degree of longitude measures 60 nautical miles and one degree of latitude is 56.5 nautical miles.) Obviously the maneuverable air spaces of carriers would overlap and vary with their changing locations relative to each other. They would be moving within the Yankee Station, sailing into the wind at about 15 nautical miles per hour during both launches and recoveries of their aircraft. Once all of the aircraft were off their decks, they would have to turn around so that they could sail into the wind again when their aircraft returned to their decks. That would be a lot of carrier and aircraft movement confined to a small geographical space. Furthermore, each carrier had a flotilla of supporting ships that would also be on the move. All would have to participate in a carefully choreographed water ballet taking place inside of a sixty square mile box.

Midnight passed and there was considerable hustle and bustle on the three carriers. Air crews were puzzled over the unusual mission briefing they had just received and the crazy operation they were about to undertake. So were the support crews that had never before seen such big nighttime air launch and with nothing but harmless flares.

Nevertheless, they were all thrilled. Those from the *Oriskany* would finally get to go into the forbidden North Vietnam's airspace before returning home, and the ones from the *Ranger* and the *Hancock* would get an earlier than expected opportunity to invade the enemy's sanctuary. The Navy was ready.

With all the unusual pre strike excitement and activity at Yankee Station only four men knew what was at stake during that night. They were: Vice Admiral Bardshar, Rear Admiral Ramage, Captain Hill, and Commander Hoskins. Bardshar's Chief of Staff, Captain Kenyon, who had learned about the prisoner rescue plan during Brigadier General Manor and Colonel Simons' visit, remained at Subic Bay. The foursome knew many men who had taken off from their carriers and never returned. No one knew the exact number of imprisoned airmen that could still be alive, but up to that time the three carriers listed 57 of their airmen as missing in action (MIA).[23] Unknown numbers of them ended up in inhumane North Vietnamese prisons and here was a bold plan to bring some of them home. Who wouldn't be excited over such a prospect? They all had close friends who could just be among the sixty or so that could be rescued that night.

Navy's diversion was to begin before the raiding force from Thailand could be picked up by the North Vietnamese radars. H hour, the time for the flare drop over the POW compound that was furnished to the Navy, would occur between 2:15 and 2:20 A.M. local time at Son Tay. Because the assault helicopter formation had to fly at fixed 105knot indicated air speed (KIAS), its lead Combat Talon C-130 could not control its arrival by making in route speed adjustments. Its arrival at the camp would depend on in flight winds. The no wind time from Udorn to Son Tay at 105 KIAS was calculated at 3 hours and one minute. With an 11:17 P.M. take off from Udorn the assault helicopter, whose call sign was "Banana", would reach Son Tay at 2:18 A.M. Consequently, this was the flight plan time used by planners of USAF supporting aircraft with the understanding that the prevailing wind could influence the actual arrival time. Navy diversionary aircraft were to use a fixed 2:00 A.M. local time for their H hour.

Da Nang Air Base

The first Navy support aircraft took off from Da Nang in the Republic of Vietnam shortly after 1:00 A.M. It was a ground based KA-3B tanker that belonged to the USS *Ranger*. It was only the first one of thirteen tankers the Navy would launch that night. Captain Hill and his planners made sure that they had enough available fuel over the Gulf of Tonkin even for the worst possible contingency, just in case things did not go according to their preconceived plan. They even made provisions to have the Navy tankers take on fuel from the two Air Force KC-135s that brought a full load of fuel all the way from U Tapao, Thailand. The primary mission of this first KA-3B tanker was to top off fuel tanks of the first two F-4 Phantoms from the USS *Ranger* that needed extra fuel to carry out their dual TARCAP and MIGCAP missions.

The next six aircraft, also from Da Nang, were EKA-3B ECM/Tankers. Two of them belonged to the USS *Oriskany*, two to the USS *Ranger*, and two to the USS

Hancock. They were too big and too heavy for normal operations off carrier decks. One USS Oriskany pilot recalls:

> At the time my unit was assigned to the Air Group deployed aboard the USS *Oriskany*, which was assigned to "Yankee Station", but my unit was operating out of Da Nang simply because we could carry more fuel and our size allowed more free space on the flight deck. The A3 is quite a large plane, as a matter of fact the largest to ever operate from a carrier. We had a secondary mission as a tanker and could carry much more fuel if we operated from a land base.[24]

The EKA-3B also enjoyed a better margin of safety operating from land whenever that option was available. Landing Signal Officers (LSOs), who had to give them directions from the carrier decks, did not like to have them come down with their wide wingspans so close over their heads. Lieutenant C. W. Gilluly, who had flown EKA-3Bs before, was the LSO that night. This is what he relates:

> As an LSO, I can tell you it was always interesting waiving them on the carrier – especially at night. On a small ship like the Oriskany the wing tips literally went over your head on the LSO platform when it landed. Plus, no matter what the pilot did, when it caught the hook on landing, the god damned thing always bounced straight up in the air before it rolled to a dead stop – with its nose pointing out over the angled deck. All the pilot and BN (bombardier/navigator) could see was water in front of them – the enlisted guys in the back just prayed.[25]

The six EKA-3Bs had a dual mission to perform. Their primary one was to engage the enemy in electronic warfare with sophisticated electronic countermeasures equipment (ECM). They flew on a 42-mile long track spread out at altitudes of 21, 23, and 24,000 feet just outside of the lethal range of surface to air missiles and jammed all detected radar and radio frequencies of the enemy. They were scheduled to remain on their track until 2:30 A.M., by which time all attack aircraft will have crossed the exit point BUDWEISER and be recovering on the decks of their carriers. Their secondary role as tankers was to provide fuel for any Navy aircraft in need.

Carrier Flight Decks

Casual observers of aircraft take offs from carriers focus so much attention on the airplanes that they miss seeing the crucial work of the deck crews that make these amazing events possible. Vice Admiral Bardshar and Rear Admiral Ramage were not just casual observers. From their vantage point on the bridge they could look down from the bow to the stern and witness every piece of action that was unfolding below them. This was the beginning of what became the largest nighttime carrier operation of the Vietnam War. Technology, human skills and bravery were about to be tested in a well-choreographed carrier flight deck operation that required precision movements from all participants.

Deck crews moved quickly with the precision of a well-rehearsed drill team. Each man had an exact spot to stand on and a specific path in which to pace in and out as each aircraft moved into position for a catapulted take off. Each aircraft's wings were unfolded and inspected. This was followed by a timely raising of hinged jet blast deflectors that forced hot engine exhaust up and away from other deck activity. The aircraft was then guided to a precise spot where the crew coupled the nose wheel strut to the catapult with holdback devices. Once the final check of connections was made the pilot flashed his aircraft's external lights to the catapult officer in charge. He applied desired engine take off power and braced himself for the jolt that came once the steam pressure built up enough to break the holdback fitting. That freed his aircraft to shoot out like a dart over the bow edge of the carrier. Once free of the carrier deck it would became a flying airplane under the complete control of its pilot whose body had just begun recovering from the tremendous G force pressure caused by the sudden acceleration from a standstill to more than 150 knots in under three seconds. The roar of jet engines was deafening and the dull, but resounding, thump of the catapult was felt throughout the ship. Then, without a break a new dance would begin. The water-cooled jet blast deflectors were expeditiously lowered so that the next aircraft could taxi over them and take its place at the catapult just as its steam driven piston and hook slid back into the launch hook-up position. Shadowy figures of goggled and helmeted men moved like fireflies on a summer evening. Each wore a different colored float coat with sewn-in reflective tapes, which identified his deck crew function. But unlike the dance of the fireflies their movements were not random. Their steps were well rehearsed through a very rigorous and disciplined training. They were very young and hailed from all across the United States. Some were mere senior teenagers, high school graduates from classes of 1968 and 1969.

Diversionary Attacks

The first aircraft off the USS *Oriskany* was the airborne early warning (AEW) E-1B AEW voice call "Tango". It was heading to its designated station due east of Haiphong from where it would provide flight following for the Navy aircraft. The first one off the USS *Ranger* was the other E-1B with voice call "Uniform". Its assigned orbit was on the 19th parallel just east of the USS *Wainwright*, PIRAZ ship, whose call sign was "Red Crown". It provided coverage for the Yankee Station that was in the waters to the south and to the FORCECAP (Force Combat Air Patrol) F-8s to the west.

The first attack aircraft at number 1 catapult on the starboard side was A-7 piloted by the commanding officer of Carrier Air Group 19, Commander Douglas F. Mow. His wingman, at catapult number 2 was the Operations Scheduling Officer of Attack Squadron 155 (VA-155), Lieutenant Russel C. York. They would make up the first of the three sections of six A-7s on Track Bravo.

The next pair of A-7s with Lieutenant Commander Joseph D. Cole, VA-155 Administrative Officer, and Lieutenant James H. Oliver followed the first section. All appeared normal from the bridge, but one of the aircraft had a problem. As soon as Joe Cole recovered from the effects of the catapult launch, he realized that his radios were not

working. He could receive, but could not transmit. He communicated with his wingman Jim Oliver by light signals and the two decided to press on in spite of Joe's predicament.

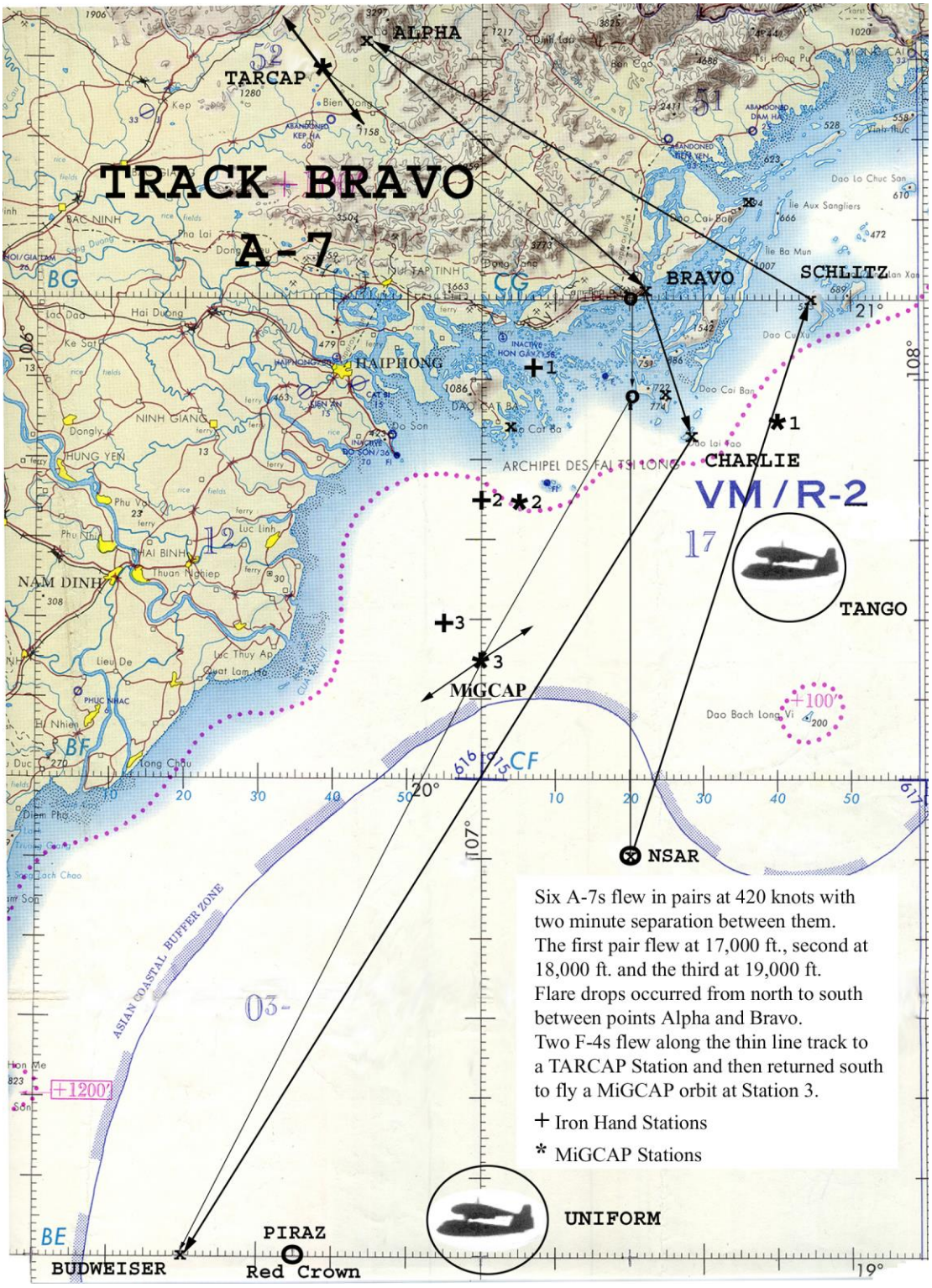
Soon thereafter, Jim ran into a predicament of his own. He lost his navigational TACAN that gave him distance and bearing to the USS *Jouett*, ship at North SAR (Search and Rescue station). Now both of them had valid reasons to air abort their mission. No way! They had flown together many times and the mission ahead of them was too intriguing to pass up.[26] Something very important was about to happen around Hanoi that night and they wanted to be part of it. Besides, their abort would mess things up for many others. They couldn't just turn around and land to claim spare A-7s that were on a 15-minute alert. The USS *Oriskany* was a small carrier incapable of simultaneous take offs and landings in an operation that involved 27 of her aircraft. Her landing deck was still full of aircraft with folded wings that were waiting to be positioned for their take offs. They would have to spend much time in orbit waiting for the landing deck to clear. Late aircraft on Track Bravo would mess up timing for others that would include the two TARCAP F-4s that were to remain on their station near Kep Air Base for only 10 minutes before heading southeast to provide cover for the six EKA-3Bs from MIGCAP Station 3. That cover was to last for the duration of the diversion. So the experience of these two pilots prevailed and they continued on their track as planned, one without a radio and the other without a system to navigate. The mute one was now leading the blind.

The third section of A-7s with Lieutenant Gary Ostrander did not have any problems. All the Silver Fox pilots from VA-155 were on their way. (See photograph of Track Bravo on page 27.)

Bardshar and Ramage witnessed the initial launches from the bridge. The thundering noise of jet engines was deafening, but pleasing to both admirals. They watched the plumes of fire disappear into the night one by one as pilots steered their aircraft north to assigned air spaces from which they would begin their bizarre mock attacks. All seemed to go well on the *Oriskany*. The same was expected from the deck of the newly arrived *Ranger, which* was several miles to the south. It was time to leave the noise of the bridge and retreat to the much quieter Combat Information Center (CIC) to monitor the entire operation electronically. Bardshar went there directly, while Ramage opted to walk around the deck to lend support to his men before he retreated to his own war room. He could monitor the unfolding mock attack on the North Vietnamese coast from there with more diligent attention. Bardshar, the Commander of the TF-77, left him in charge of this operation. The presence of both of them in the CIC could make the command authority somewhat awkward. Events of the night were puzzling enough for all the uninitiated operators in the CIC.

Admiral Bardshar had an ideal, technologically up to date, set up with the USS *Wainwright's* Positive Identification Radar Advisory Zone coverage and the Naval Tactical Data System communications tie in. That gave him a complete picture of the Gulf area and the North Vietnamese landmass all the way to the mountains past the Red River. In stateside geographical terms, if his CIC were located in the waters north of

Cape Cod, his coverage would encompass the entire landmass of Maine, New Hampshire, Massachusetts, and Rhode Island.[27] He could see big screens with real time displays of all airborne aircraft and follow them as they moved through the skies from



one planned turning point to another. Even though the crews maintained radio silence he was tuned to their operational frequencies. He also had access to what the enemy was saying over the airwaves. Interpreters on air borne EP-3 from Guam, and also his own sea borne ones, would translate commands generated by the North Vietnamese defense network and provide him timely inputs on enemy's responses to the attack.

At first glance, the greenish glowing displays appeared to show a disorganized group of semi-circles that represented friendly aircraft moving in every possible direction. But a prolonged look at each screen would reveal that there was a precise order to each aircraft's movement. Each had a definite air space to go to and then depart from it at a predetermined time. Bardshar knew the battle plan layout with its numerous geographical points that were identified by numbers, letters of the alphabet, proper names like MARY, and even favorite beers like SCHLITZ and BUDWEISER. He observed the screens with satisfaction as the naval forces moved in for their carefully staged mock attack. Everything was unfolding as planned. All aircraft were transmitting IFF that identified them positively to the PIRAZ radar controllers giving them their speed, direction and altitude. Aircraft were crossing their predetermined positions and the eavesdropping interpreters reported that the North Vietnamese radars were already hot.

Among other early take offs from the *Oriskany* were two F-8Js. It was VF-194 Safety Officer's Lieutenant Bull Durham's turn to fly. He was tasked to lead two F-8J Crusaders to provide BARCAP protection for two high flying Air Force Combat Apples and one RC-135 radio relay aircraft, including any other Navy aircraft east of the MIGCAP line established by the lower flying F-4s from the USS *Ranger*. The two Crusaders flew what would normally be a routine and boring six-mile racetrack orbit at 34,000 feet just east of MIGCAP Station 2, except for the great fireworks provided by dozens and dozens of diversionary flares and wild North Vietnamese SAMs that appeared to be fired harmlessly in a barrage pattern. Bull recalls: "It was more hostile fire in two hours than I had seen in two cruises".

Most aircraft maintained radio silence and flew blacked out. Even though they had their assigned tracks with safe altitude separations and were closely monitored by Red Crown's radar controllers, Safety Officer Durham did not feel comfortable, noting that the stars winked off and on from time to time when some of the Air Force's high flyers went past his poorly defined nighttime horizon. He considered the risk of a collision higher than a small chance that a MIG would show up from nowhere. So he had both Crusaders go lights bright and flashing. [28] He wanted to be seen.

Taking off from the USS *Ranger* shortly after the E-1B radar platform "Uniform" was Felton M. Humphreys' flight of A-7E RESCAP Corsairs. As everyone else, the Commanding Officer of VA-25 had no idea what was that night's primary mission. Just as others from the USS *Ranger*, he was puzzled by the hurried arrival of his carrier to the war zone and he sensed the importance of what the TF-77 was tasked to do in spite of the weird armaments loaded aboard all attack aircraft. This armament restriction did not apply to his mission. He would lead four A-7Es on a REESCAP sortie. Their weapons load would consist of 4 to 6 Rockeyes and a full load of 20MM ammunition. Each one

would also carry 24 flares that would be used only when needed to recover any airman whose flight ended up in the water, or even worse, somewhere on the mainland. This is what he recalled many years later:

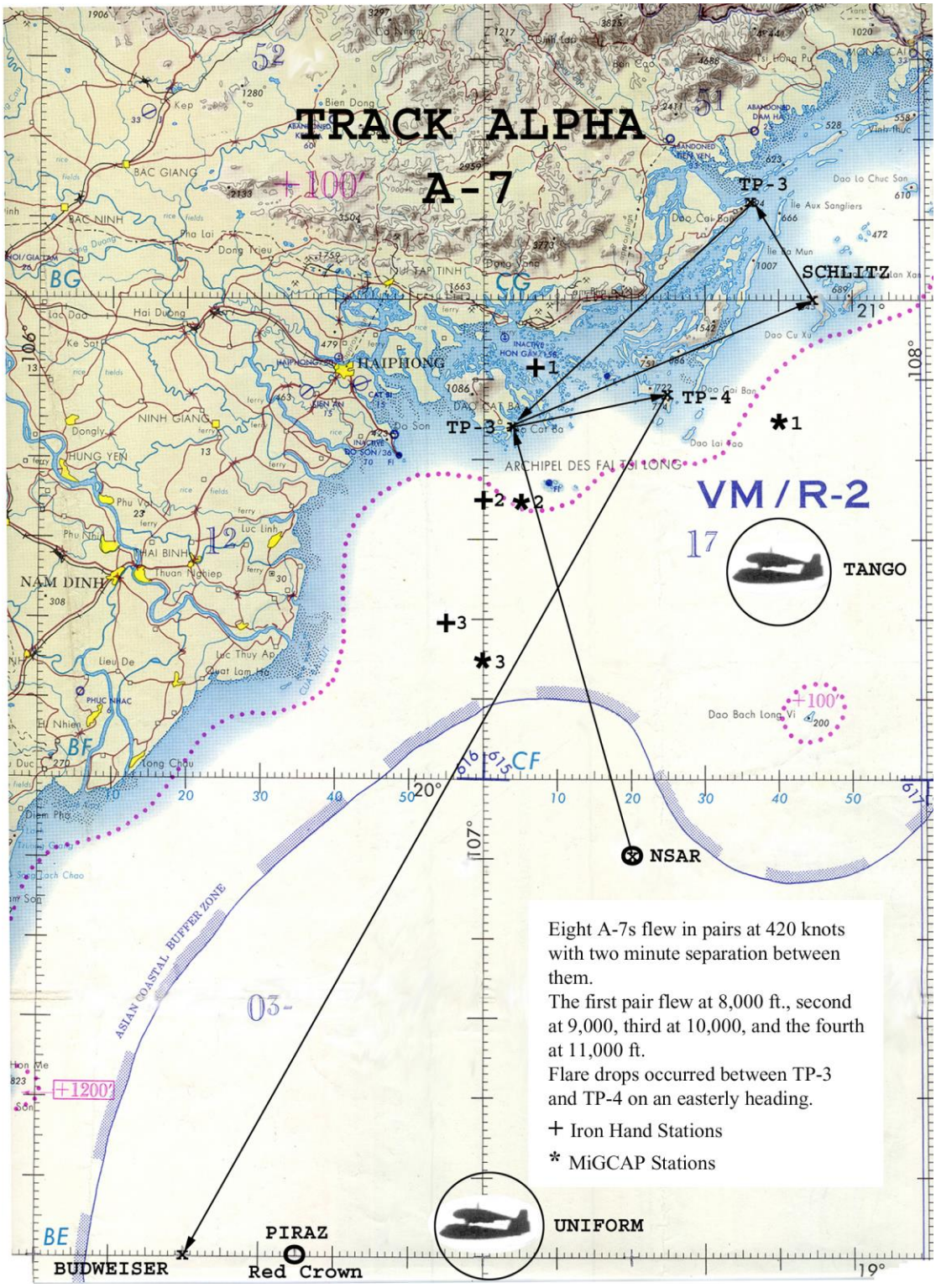
> If someone had been in the water I would have been on scene leader until the special Helo SAR guys arrived. If the bad guys were trying to capture the downed aircrew, we (that being the 4 A-7Es) would have used what we had to keep them at bay until rescue picked them up. Since Rockeye is a large area weapon we would not have used them near the downed crew. The A-7E had the Gatling gun that fired at 6,000 20mm rounds per min., so it would have been used when close to our guys and the Rockeyes for boats, etc. that were farther away. [29]

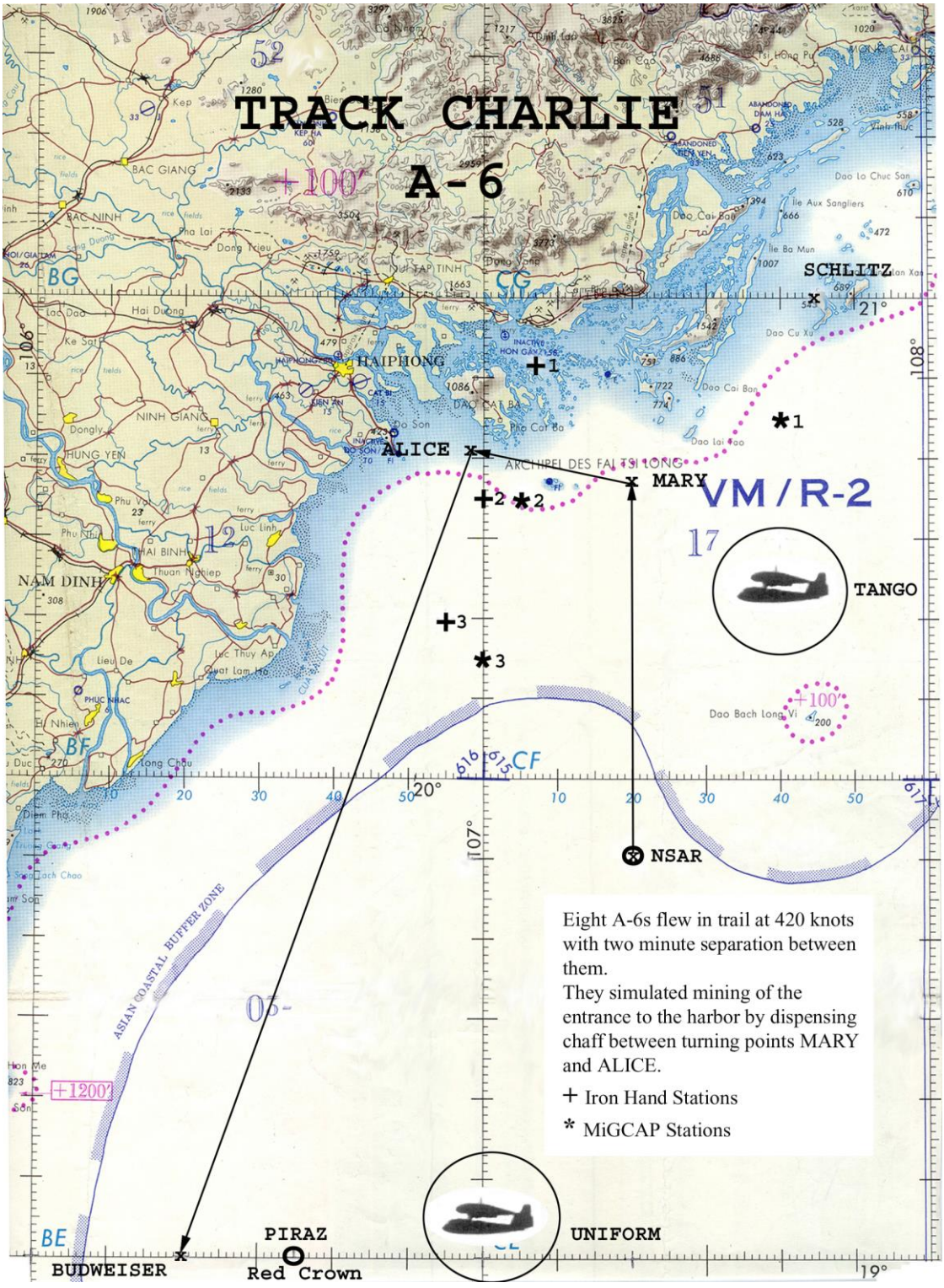
RESCAP Corsairs took off early to be on station before the attack aircraft departed on their flare dropping tracks. The first two Corsairs received radar vectors to refuel from one of the EKA-3Bs and then flew north of NSAR to establish their elongated, low level track that went from Don Bach Long Vi Island to the vicinity of point MARY. "Hump" Humphreys ended up flying at the lowest RESCAP altitude that limited his view of the mainland. He was at 5,000 feet. The others were stacked up above him at 6, 7, and 8,000 feet. It was an uneventful flight that made them wonder what was happening far beyond their horizon, somewhere near Hanoi. When it was all over, the second section of "Hump's" flight had to pick up some fuel from a tanker before they were vectored to a designated area where they had to dump all their flares. Landing on carriers with a load of flares was not permitted for safety reasons.[30]

TACAN at the USS *Jouett* at North Search and Rescue point (NSAR) was the common departure and time control point for all attack aircraft. A steady stream of them began departing from there after Douglas Mow's Silver Foxes crossed it at 1:30 A. M. At 1:32 A.M. another pair of A-7s departed NSAR heading on Alpha track that went zigzagging over the islands east of Haiphong. They were also from Oriskany and flew at 420 knots, but only at 8,000 feet. This first pair was followed by three more that crossed NSAR at two-minute intervals and flew at stepped up altitudes of 9, 10 and 11,000 feet. The first pair began its flare drop at 1:56 A.M. while flying due east of Haiphong between turning points 3 and 4. (See photograph of Track Alpha on page 30.)

The last wave to depart NSAR consisted of eight A-6s from the USS *Ranger*. Their mission was to simulate dropping mines into the approaches to the Haiphong harbor. They also flew in pairs at two-minute intervals and at 420 knots. They began departing at 2:03AM at scattered low altitudes that were below 4,000 feet. They all dropped chaff between points MARY and ALICE while heading directly toward Haiphong. (See photograph of Track Charlie on page 31.)

The Silver Foxes on Track Bravo experienced no problems while northbound. They climbed to their assigned altitudes: first section to 17, second to 18 and the last to 19,000 feet. As they looked to the left, they could see the lights of Haiphong and of Hanoi farther to the west. What they saw didn't look like a country at war. After a prolonged bombing pause north of the 19th parallel the land became complacent. They


TRACK ALPHA
A-7
TP-3
SCHLITZ
TP-4
TP-3
HAIPHONG
VM/R-2
TANGO
NSAR
UNIFORM
PIRAZ
Red Crown
BUDWEISER
Eight A-7s flew in pairs at 420 knots with two minute separation between them.
The first pair flew at 8,000 ft., second at 9,000, third at 10,000, and the fourth at 11,000 ft.
Flare drops occurred between TP-3 and TP-4 on an easterly heading.
+ Iron Hand Stations
* MiGCAP Stations


TRACK CHARLIE
A-6
+100'
SCHLITZ
HAIPHONG
ALICE
MARY
VM/R-2
TANGO
NSAR
PIRAZ
Red Crown
UNIFORM
BUDWEISER
Eight A-6s flew in trail at 420 knots with two minute separation between them.
They simulated mining of the entrance to the harbor by dispensing chaff between turning points MARY and ALICE.
+ Iron Hand Stations
* MiGCAP Stations

could see many ships in the harbor. With all the lights on, normal night shift must have been busy offloading incoming war supplies from their supporting socialist countries. North Vietnam's early warning radars were scanning the growing numbers of aircraft over the Gulf, but the threatening AAA and SAM radars were still silent. The Silver Foxes turned inland at point SCHLITZ and proceeded on their route. The air was smooth and visibility excellent. Mountains below were dark and the view of Haiphong, now seen from the north, was beautiful.

These A-7s would make the deepest penetration into North Vietnam. Their Bravo track would take them to a turnaround point 30 miles northeast of Kep Air Base, which was home to about 36 MIG 15s, 17s, and 19s. Even though none of them were expected to be on alert that night, two MIG 21s would be pulling alert duty west of Hanoi at Phuc Yen. The unarmed, flare-dropping A-7s needed some protection just in case a MIG would come to challenge them. So the two F-4 Phantoms that had taken off from the USS *Ranger* and refueled from Da Nang launched KA-3B would fly just south of track Bravo to their TARCAP orbit point 20 miles from Kep. There they would loiter for 10 minutes and then head back over the water, following the A-7s on their eastbound flare dropping track. Once over the Gulf of Tonkin, the two would proceed at 26,000 feet to MIGCAP Station 3 that was 38 miles southeast of Haiphong. Here they would assume their second mission that involved manning the south portion of MIGCAP perimeter that was located between the Iron Hand, SAM, and AAA suppression stations and all other high flying aircraft over the water to the east.

Two more pairs of F-4s took off from the USS Ranger some time after the first pair that headed along track Bravo to a TARCAP station near Kep Air Base. They flew to their respective MIGCAP orbits at Stations 1 and 2. Station 1 was the northernmost, just east of the islands. Its F-4s orbited at 16,000 feet. Station 2 was off the mouth of Haiphong harbor at 14,000 feet. From their vantage points the F-4s could provide protection for all tracks outside of Haiphong. They would pursue any MIGs launched against the Navy. "Red Crown", PIRAZ ship USS *Wainwright*, would provide them with MIG intercept vectors, alone, or with inputs from airborne E-1B radar platforms.

Once the Silver Foxes turned back from their deepest penetration north of Kep Air base to begin their flare drop, the AAA Firecans and SAM Fansongs became very active, tracking every aircraft that approached their lethal zone. The A-7s on Track Bravo were outside the effective ranges of both of these anti aircraft systems. They continued to jettison Mark 24 flares one by one over planned locations. Joe and Jim used light signals to communicate and watched the powerful million-candle power flares dropped by Commander Mow's section that flew about 14 miles ahead of them. Twenty-knot crosswind caused the flare parachutes to drift southward toward Haiphong. Each one of the A-7s dispensed 8 flares from the Zuni rocket pods mounted on their wings.

Soon the strobing on A-7 electronic countermeasures equipment became very intense. The North Vietnamese were finally ready to engage the Navy intruders. Then as the lead section was about to go "feet wet" (cross from overland to over the water) the SAM launchings began. Once over the water, they turned right and headed south-

southwest toward exit point BUDWEISER and the Yankee Station. They were now much closer to Haiphong and looking to the right they had a better view of the harbor than they did on the way in. The 48 flares they had dropped just a few minutes before lit up the countryside just north of the city. Behind them were 64 more burning flares dropped by A-7s that flew on track Alpha. And some 14,000 feet below them, the work of eight A-6s was unraveling. They were simulating mining of the approaches to the harbor by dropping chaff and more flares. Countless AAA tracers and some of the 20 SAMs North Vietnamese launched against the Navy aircraft that night highlighted this eerie scene time and time again.

Out of harm's way, Jim Oliver's view of what was happening to his right was bothered by the intense strobing of the electronic countermeasures equipment. Because it showed too many out of the lethal range radars, he turned this warning system off. [31]

While the attack aircraft flew along their designated tracks, six A-7s Iron Hands from the USS *Ranger* moved in pairs into their respective positions at orbit points ZULU 1, 2, and 3. These were located between the North Vietnamese shoreline and the attack aircraft tracks. They maintained orbits at altitudes of 28, 30 and 32,000 feet from which they played electronic chess games with AAA and SAM guidance radars. These fire control radars would attempt to lock on various aircraft from time to time and interrupt their target acquisitions whenever the A-7s turned inbound toward them. Those that persisted in target acquisitions would come under attack by Iron Hands that were permitted to swoop down from their orbits and fire Shrike missiles at radars that continued tracking them.

Commander Weston H. Byng, Executive Officer of VA-113 was one of the seasoned Iron Hand pilots selected to fly that night. Known to all as "Ham" Byng, he was just beginning his third cruise in the Gulf of Tonkin aboard the USS *Ranger*. Things did not go well for him on departure. His wingman aborted on the deck and "Ham" found himself flying alone to his 32,000 foot ZULU 3 orbit. Even though he would be out of the lethal range of known SAMs, he would have no one in his orbit heading toward the hostile threat while he was turning over the Gulf for another pass toward land. His equipment was registering intensive radar activity aimed in his direction, but he saw only one SAM that came up to about 30,000 feet just west of his position. That qualified for hostile fire. He recalls that: "On inbound leg I got many radar returns. At such high altitude, 32,000 feet, I would get good range, so on one leg I lofted a Shrike into the crowd. I couldn't know the effect but it probably got somebody's attention."[32] His Shrike would be one of only three fired at North Vietnamese radars that night.

Lieutenant Jack P. Connell of the Blue Tail Flies was one of the pilots of four A-7E tankers from the USS *Oriskany* that were tasked to provide fuel for anyone that bolted and needed more fuel for return passes to land on his carrier. He realized that something very important was about to happen when he witnessed the arrival of Bardshar and his staff aboard the *Oriskany.* Closed-door meetings with admirals and intelligence officers followed and the Chaplain announced a special Church call for that evening. Feeling the suspense of what was about to happen, he decided that it would be a good idea to attend

that church service. His most memorable mission moments occurred before his catapulted take off.

> I distinctly remember sitting in the cockpit after engine start, the canopy and aircraft buttoned up, and all pre-launch checks complete, and sensing just how bad the weather was. My aircraft was spotted on the port side on the angle, just aft of midship. As the ship rolled to starboard I was almost hanging in the straps, and as it rolled back to port I felt like I was lying on my back. It was the worst rolling and pitching deck I had experienced, and I was concerned about maintaining control after the chains were broken down to taxi to the catapult. This was late in our cruise and the deck was oily and the non-skid had worn off, and with severely pitching and rolling deck covered with salt spray, an aircraft with its brakes locked could easily enter a bad skid. As they broke me down to taxi to the cat, the pitching and rolling decreased and I was catapulted without any problems (glad I went to Church that day).[33]

Lieutenant Connell's aircraft was the last one launched from the USS *Oriskany* that night. His flight was very uneventful. He remembers that no one hooked up with him for the customary plug and transfer of a token amount of fuel that normally took place as soon as each tanker got airborne. This was done to insure that tanker's refueling system was operating properly. Because his fuel supply would not be required until mission aircraft began their recoveries, he had instructions to fly up to the vicinity of point MARY and ALICE before returning to a designated airspace at Yankee Station. That flight to the north gave him an opportunity to observe some of the fireworks display in the vicinity of Haiphong. He had to cross the tracks of several other aircraft doing their things at various assigned altitudes. On his way back "Red Crown" cautioned him that he was closing in on an unidentified aircraft that might have been the Air Force's EC-121 radar platform. He dove beneath it and proceeded to the vicinity of the *Oriskany* to await the returning strike aircraft.[34]

Diversion Monitoring

Bardshar listened to his pilots and controllers as they exchanged air traffic information and to the interpreters to learn if the enemy had detected Air Force aircraft approaching from the west. All seemed to go as planned. The enemy was focused on the Navy and his ability to handle all the tracks from the Gulf was being severely tested. He saw numerous IFF returns from the Air Force aircraft. The first ones were from the first wave of five F-4s flying MIGCAP and then five more from the F-105 Wild Weasels that performed the same SAM and AAA suppression as the Navy's Iron Hands. Not long after that the confluence of the Black and Red Rivers became saturated with 13 more returns that represented the IFF squawking helicopter and A-1E fighter formations escorted by two MC-130s. He listened intently as the H hour approached and nodded with approval when a radio relay message told him that the raiders had reached the POW camp at just after 2:18A.M.

He paid particular attention to the alert MIGs at Phuc Yen. Raiders were already on the ground and two MIG pilots were ready for take off at the end of the runway. The Son Tay POW compound was on the straight line from the take off runway only 17 miles away. They could get there in 3 to 4 minutes. The MIG pilots had no idea what was happening so close to them. They could see the fireworks caused by the naval flares over Haiphong and were asking for permission to take off so that they could be vectored to intercept their enemy. Their equally frustrated controllers rejected all their pleas. They themselves lacked specific instructions from their superiors in the air defense network. Bardshar knew very well that MIG pilots could never take off for combat without specific instructions from their controllers. It was a positive hint that MIGs would not be committed that night. The clearest indicator about non employment of MIGs came when the North Vietnamese fired SAMs against the Navy aircraft. It was precisely the air battle scenario the Son Tay raid planners desired.

Now that the enemy defenses started to pay attention to the Air Force intruders in the west, the Navy began winding down its diversionary operation. All attack tracks funneled toward point BUDWEISER from which each aircraft would return to its own carrier. Bardshar monitored their return in the CIC and Ramage followed the action from his own war room. Both admirals were satisfied. All TF-77 aircraft were returning safely. All 20 SAMs fired against the Navy aircraft missed their targets. There was no AAA damage. Most aircraft stayed out of harm's way.

From time to time Bardshar would check on the location of Air Force's IFF squawking aircraft. He could see the F-4 MIGCAP aircraft just past Hanoi and south of the mountain range that became known to U. S. pilots as Thud Ridge. Then farther south and more toward Mount Ba Vi he identified orbiting F-105 Wild Weasels. He could see only one C-121 College Eye in the southern part of his diversionary activity. PIRAZ tracked and maintained contact with both Strategic Air Command RC-135M Combat Apples from Kadena, Okinawa and one "Luzon" radio relay RC-135 from U-Tapao, Thailand. Also present within his domain were two KC-135s, also from U-Tapao, that were there to refuel all comers, including his Navy tankers. All appeared to go very well in the Gulf of Tonkin in spite of the worsening weather that began to hamper carrier landings.

Coming home would be challenging and exciting. It always was. Carriers never stand still. They are always on the move and sail into the wind at about 15 knots during aircraft operations. This helps to reduce aircraft landing velocity by the amount of carrier's forward speed though the water. Any amount of headwind is welcomed because it reduces the relative landing approach speed that much more. The landing part of the carrier deck is not aligned along the ship's longitudinal axis. It is angled from the stern to the left at 14 degrees and it is much shorter than the length of the ship. This way, if any aircraft goes off the landing deck into the drink, it falls off to the left and the forward moving carrier does not run over it.

To get their planes on the deck for a successful tail hook landing, pilots have to touch down at the leading edge of the deck runway in a space that is only 200 feet long

and 50 feet wide. That would be difficult enough if this small deck area were standing still. But this floating runway moves forward into the wind at the carrier's speed in the water and they have to land in the direction that is offset from the longitudinal axis of the carrier by 14 degrees. That runway orientation poses an additional challenge to the landing skills of pilots. They have a good angle of attack indicator in the cockpit and can control their airspeed with proper throttle power application. Once they are in their ship's landing pattern, the Carrier Air Traffic Control Center provides them with prevailing wind across the deck of the carrier. But that is not all. Each carrier is subjected to the existing sea conditions. Because of its enormous size, it does not bob up and down and from side to side with the speed of a small cork. The carrier is subjected to the same rhythmic gyrations of the sea, but in a proportionately slower motion. These forces of nature add to the challenges of a carrier landing. Now consider landing at night on an open sea when there is no visible horizon (no city lights to assist in determining one's own orientation) and the challenge, or the thrill of the ride, is increased tremendously. Earlier studies in Vietnam showed that pilots landing on carriers at night undergo greater stress than they do in attacks by AAA or SAMs during their bomb runs on targets. Medical researchers revealed that vital signs of tested pilots registered twice the amount of stress confronting the ball in a night carrier landing as over downtown Hanoi in daylight attacks.[35]

It was going to be a tough time for all who returned to their carriers that night. Their encounters with "the meatball" would become the second most memorable event of their mission. The ball is a visual precision landing instrument for carrier pilots. It is a yellow beam from Fresnel lenses aligned along the glide slope of an aircraft that is descending for a landing. It is gyro stabilized for the ship's pitch and roll. It has a set of horizontal lights used as a reference. When pilots see that the yellow ball is even with the green datum lights, their aircraft is on the correct glide slope. If the ball goes below the green lights, it turns orange; then red, if the aircraft is dangerously low. The ever-present Landing Signal Officer is a human backup for the meatball and often provides verbal guidance to the pilots assisting them to land where they can engage the cables, or waving them off if their approach is not a safe one. The LSOs grade each landing approach, which is also captured on film and available for a later critique.

When Bull Durham returned to the *Oriskany* from his BARCAP mission he had yet another concern as a Safety Officer.

> The recovery that night was weird. I had seen flight decks pitch, heave, and roll, but never anything like this. The fantail was describing a figure 8, with a slide from side-to-side superimposed on the roll and yaw. Most of us got a courtesy look – one wave off – and trapped on the next pass. Interestingly, all the aircraft on *Oriskany* got back aboard, but the big-decked *Ranger* sent a passel of aircraft into Da Nang that night.[36]

Jim Oliver and Joe Cole had an additional landing challenge ahead of them. Joe was returning for a night landing without his radios. Jim led him down to the final approach of the up-and-down pitching and side-to-side weaving Oriskany, ensuring that

he made a successful arrested landing. That night's Landing Safety Officer C. W. Gilluly still remembers the landings. Oliver used enough fuel assisting Cole that he needed to replenish his tanks before attempting his own landing. He wanted to have enough fuel for several missed approaches if they became necessary. "Red Crown" at the USS *Wainwright* vectored him to Al Erderland's A-7 for a hook up. Jim returned to his carrier's landing pattern and made a successful first time trap.

The last one off and the last one back on the deck of the *Oriskany* was Jack Connell in his A-7 tanker.

> The weather back at the ship had continued to worsen, but everyone eventually got aboard. I was the last aircraft to land and had to be talked down by the LSO because the deck was pitching outside the stabilization limits of the lens and it was also heaving. I must have flown a pretty good instrument approach and broke out with a centered ball. The ball started to go a little low and I came on with some power. The LSO said the deck was pitching, to ignore the ball and "keep coming". The LSO talked me down with power and line-up calls, but the ball went even lower, then to a red ball, then a flashing red ball which scared the hell out of me (again, glad I went to Church that day!). I trapped on my first shot at the deck and got an "OK" grade from the LSO.[37]

The worst news of the night came from the Green Berets inside of the Son Tay compound. There were no prisoners in there. P.D. Hoskins was with Bardshar when he received the coded message that there were zero "items" at Son Tay. They were both devastated.

Monkey Mountain Command Post

Things did not go that smoothly for the Joint Contingency Task Group Commander Brigadier General Manor at Monkey Mountain's Tactical Air Control Center outside of DaNang. The best-qualified members of this center's battle staff were on duty that night. They were briefed on the mission only after the Air Force aircraft began launching from Thailand. A few of Manor's key staff members were also on hand. Each one of them played a specific role in the planning and could offer counsel on potential problems within his area of expertise. He had a much larger area to view than Bardshar and Ramage. Ten big screens decked the walls of the command post. Because the Center was linked with the TF-77 via Navy Tactical Data System, he was able to monitor everything Bardshar saw on board of his Oriskany. Air Force's alternate Tactical Air Control Center at Udorn, Thailand provided tracking of aircraft from their bases over Laos and into North Vietnam where they could be picked up by Navy's PIRAZ and DaNang's own long range radar, as well as the College Eye EC-121Ts that would perform the same function as the Navy's E-1Bs. Air Force radars lost track of the two MC-130E led formations once they began zigzagging at low level in their attempt to sneak beneath the North Vietnamese radar coverage into the target area. But once these formations disappeared from the Thailand based radar into the mountain valleys, the computer at Monkey Mountain generated their flight planned tracks and advanced them

along their flight plan route until the IFF squawking formations were picked up emerging from the mountains into the vast river basin west of Hanoi. (Photograph on page 39 shows the combined Air Force and Navy tracks.) Manor also had a more extensive radio contact through radio relay aircraft with everyone in the theater. Through Combat Apple and one radio relay KC-135 from U-Tapao he could monitor even the transmissions of Green Berets on the Ground. One MC-130E with radio relay capability would loiter just west of Son Tay throughout the ground assault phase and would be able to provide on scene communication should any SAR effort become necessary. He would also have the benefit of enemy's radio chatter from the Air Force translators that were collocated at the Center. One staff member provided significant transmission translations on MIG alert status to him in person. The primary Combat Apple aircraft from Okinawa had on board Air Force Colonel Norman Frisbie, who was the alternate Joint Contingency Task Group Commander. He would assume Manor's role should something prevented him from exercising control from the Monkey Mountain.

Manor's first problem came up during the raiders' departure from Thailand. Cherry One, MC-130E lead aircraft for the helicopter formation, had problems with its number three engine at Takhli. It would not start. Manor was about to order Cherry One to go ahead on three engines and switch formation leading roles with Cherry Two that was already airborne and scheduled to lead the A-1E fighter formation to Son Tay when the crew succeeded in getting the reluctant engine to fire up. Much precious time was lost, but Cherry One was able to make it up and complete an on time join up with its helicopters over Laos after they completed their inbound refueling from C-130 tankers that escorted them from their departure base at Udorn.

Next, Frog One, the primary EC-121T from Korat, lost one of its engines due to a broken oil line as it began to climb to 10,000 feet on its designated track over the Gulf of Tonkin between the Yankee station and the coastline. It had to recover at Da Nang. Alternate EC-121T, Frog Two, moved in from the south to replace it.

Target area navigation error caused the next raider problem. As planned, Cherry One left its helicopter formation at three and half miles out of Son Tay prison for a climb to 1500 feet, from which it would drop four illumination flares over the compound. At this point Cherry One's navigator broke radio silence and gave the helicopters magnetic heading to fly the rest of the way. Pilots of Banana and Apples One through Three were briefed to remain between the Song Con River and the paved tree lined road that paralleled it for some distance. Flying at 200 feet above the ground level they somehow ended up south of the road and headed for a building complex very much like Son Tay prison that was surrounded by similar rice paddies. When the flares lit up over the prison, Apple Three, the helicopter gunship, corrected its course to the left. But the pilots of Banana that carried the Blueboy Group for a landing inside of the POW camp did not see this course correction and focused their attention on the approaching complex on their right. Apple One, with the 22 man Greenleaf Group that was supposed blow up the Song Con River Bridge and clear the buildings east of the camp, followed Banana. Once its pilots saw that the Blueboy gunners fired at the compound, they diverted their attention to locating their landing zone at the southeast corner of the complex. They did not see

Banana abort its landing approach and turn north. They landed at a place some 400 yards away that looked exactly like their landing zone at Son Tay. Eager Apple One passengers exited immediately after their ship touched down.

Meanwhile, Apple Three, the gunship helicopter, strafed the guard towers and guard quarters with its miniguns and the Banana made a hard landing through larger than anticipated trees in the courtyard. Apple Two with the Redwine Group and the ground force commander Lieutenant Colonel Elliott "Bud" P. Sydnor, Jr. landed in the missing Apple One's landing spot in a rice paddy outside of the prison walls. When Sydnor realized that Apple One and its Greenleaf did not arrive, he ordered Redwine to execute Plan Green. This was an often-practiced contingency plan to carry out the raid without Greenleaf. It called for the Redwine members to spread out and execute both outside of the wall functions: clear the surrounding buildings of the enemy soldiers and provide for its own perimeter defense that included blowing up the bridge over the Song Con River.

This unexpected event created considerable confusion among all that monitored radio transmissions coming from the ground forces. The crew of Cherry Two heard one voice say: "We lost Axle!" Axle was the code name for "Bull" Simons who went on the

raid as a backup for Sydnor. To us on board of Cherry Two "lost" meant dead.* We envisioned one helicopter downed with 27 people on board. Then we heard Sydnor's call for "Plan Green" and only later another voice: "You let them out at the wrong place!" That lit a light bulb. We knew immediately that Apple One must have landed at a similar compound that we referred to as the "Secondary School". We gave a sigh of relief. Manor's staff members, who were at the Center and understood the ground order of battle, must have reacted with a similar relief.

Meanwhile the Greenleaf troops were engaged in an unexpected heavy firefight with well armed occupants of the so-called Secondary School. The enemy soldiers appeared to be non-Vietnamese and sustained heavy casualties. Miraculously, none of the Greenleaf members were hit and in a well-disciplined retreat, they reboarded Apple One. The arrived at their proper Son Tay landing spot almost 9 minutes late. Equally miraculous was the meshing of the late arriving Greanleaf with those Redwine members that were already executing Greanleaf's perimeter defense tasks. Potential for friendly fire was great with Redwine members in places where Greanleaf would normally expect to see the enemy. Restoration of normal operations after initiation of "Plan Green" and other alternate plans was neither envisioned nor practiced. Once either one of the three helicopter groups failed to arrive, the operation continued without that group rejoining the fight. The 56 men that "Bull" Simons picked to be on the ground that night were indeed the best. Their intensive training and professionalism avoided friendly fire injuries.

The worst of it for everyone came when Sydnor had to report that there were no "items"- code word for POWs – in the compound. No one who heard it wanted to believe it. Was it just a garbled message? It had to be repeated. Was all that effort for nothing? Sydnor ordered the rollback of the raiders and called for the helicopters to exfiltrate them.

As this scene unfolded, Manor learned that his F-4s and F-105s over Son Tay that had been receiving anti aircraft artillery fire came under SAM attack. That was good news for the departing raiders. It meant that the North Vietnamese would not be scrambling their MIGs. However, it was bad news for the Air Force jets that became SAMs primary targets. Sixteen SAMs were fired against them and two of them detonated close enough to damage two Wild Weasels. The first one, Falcon Three, was able to recover at Udorn with a rough running engine. The second one, Falcon Five, an airborne spare that replaced battle damaged Falcon Three, was not that lucky. SAM explosion ruptured its fuel tank and the bird flamed out on the way to join up with a rushing in KC-135 tanker. Both crewmembers bailed out over the Plain of Jars and were picked up without incident by returning Apples Four and Five at the first daylight.

Absence of MIGs was also good news because there was an unexpected problem with the newly modified EC-121Ts. These College Eye aircraft deployed al the way from McClellan AFB believing that they came to Thailand to test their new automatic data processing system that would give the Air Force the same type of real time depiction of tactical air operations that Navy's NTDS already possessed. Their crews were not told

* Author flew as the radar navigator on Cherry Two.

that the "test" would include an actual combat mission of tremendous importance until after they took off from Korat for their designated orbits in the Gulf of Tonkin. Their mission would also be the first combat employment of the new system and the first employment on a joint operation with the Navy's NTDS. The bad news for Manor was that the new system was only marginally effective. Frog Two's orbit at 10,000 feet, from which its radar operators and weapons controllers could monitor the IFF transmitting low level and on the ground idling aircraft at Son Tay, was just below the six EKA-3B ECM/Tankers that jammed the North Vietnamese GCI frequencies from 21, 23, and 24 thousand feet. Their ECM work was so effective that Frog Two had difficulties in acquiring return signals from Air Force aircraft and would not have been able to vector MIGCAP F-4s to intercept challenging MIGs. The good news was that the MIGs did not get airborne and the two services were able to resolve the glitches between their two systems for subsequent Vietnam War operations.

Overall, the bad news prevailed. All participants were crushed over the absence of POWs that could have been brought home from Son Tay. There was a concern for their future fate in NVN prisons. Men who went on the raid would gladly go again on a repeat rescue attempt, but prospects for another stunning surprise were gone forever.

Aftermath

The fact that the raid was a very successful joint service operation without the loss of a single life and only two minor injuries* did not set in until much later after all the publicity and political debate over the authorization of the raid died down and the analysts focused on what was actually accomplished and how it was all done.

The raid shocked the enemy and caused tremendous repercussions throughout the North Vietnamese military. One of the fallouts of the ensuing shake up was the immediate consolidation of all of their captives in Hanoi. There the previous solitary confinement of the POWs turned into a crowded but much more tolerable internment. The lives of many POWs were saved because in this new environment the men were able to nurse back to health their sick and weak comrades and help them survive the rest of their remaining captivity.

The raid also served notice to all our potential enemies in future conflicts. American fighting men don't become pushovers while in captivity. They can be counted on to honor the code of conduct and to continue to resist their captors. The Son Tay message to any would be captors of Americans is that they can never relax their guard because there will always be soldiers like the Son Tay raiders who will volunteer to take ultimate risks to free their interned comrades.

* Technical Sergeant Leroy M. Wright, Banana's flight engineer sustained a broken ankle during the rough landing inside the prison and Sergeant First Class Joseph M. Murray received a bullet flesh wound in his thigh.

The Navy performed brilliantly. This was never lauded enough after the raid. The real heroes were the Green Berets. They did the work on the ground and faced the enemy's bullets. The Air Force got them safely there and brought them back. Accolades and high decorations went to them. Navy's participation that contributed so valuably to the Air Force's ease in getting the raiders in and out fell into the category of a routine operation. Part of it was due to Bardshar's order about publicity of this event even after its occurrence. Task Force 77 did not have a representative at the detailed post mission debriefing at Eglin AFB that could have provided fresh accounts of how the diversion was conducted. JCTG submitted awards recommendations only for those individuals who were on temporary duty orders to it. Recommendations for supporting units, not on orders to the JCTG, were left up to the commanders of their respective units.

The Navy was very humble about its participation in the raid on Son Tay. What became the largest nighttime operation of the Vietnam War was recorded only as a significant operation in the 1970 Command History Reports for campaigns spanning the entire presence of carriers and their wigs, groups, and squadrons at Yankee Station. All carriers and assigned air units received Meritorious Unit Commendations (MUCs) for the period of their service in the Gulf of Tonkin. MUC citations for the USS *Hancock* and the USS *Ranger* have specific references to the diversionary strike. Citation in CHNAVPERS letter PERS-p53-IBP/kmc of 17 Nov 71 for the USS *Ranger* states: "Ranger arrived in the Tonkin Gulf on 18 November 1970 and participated in the diversionary action of the Son Tay Prisoner of War operations as well as Operation Freedom Bait."[38] MUC Citation for the USS *Oriskany* does not even mention the raid. Only the following flying squadrons made specific references to the Son Tay raid diversion in their Command History Reports:

USS *Hancock* with VAW-111-Det 19.
USS *Oriskany* with VF-191, VA-153, Va-155, and VAQ-130-Det 1.
USS *Ranger* with VF-21, VF-154, VAQ-134, and VAW-111-Det 6.[39]

General Manor said the following in the Commander's Comments preceding the *Commander, JCS Joint Contingency Task Group Report on the Son Tay Prisoner of War Rescue Operation*:

> The diversionary actions performed by Carrier Task Force 77 were vital to the overall success of the mission. The results of this effort were exactly as foreseen during the planning phase. It caused the enemy defense authorities to split their attention and concern thereby contributing greatly to the confusion and chaos which resulted. In short, it served to deny the option of concentrating his attention to our true and primary mission. The timing of the Navy diversion was precisely according to plan. The U. S. Navy planning and mission execution was superb in every respect. I am deeply grateful for the wholehearted and enthusiastic support received from the Commander of Carrier Task Force 77.[40]

Endnotes:

[1] Official Report, *The Son Tay Prisoner of War Rescue Operation,* Part 1, 18 December 1970, USAF HRA, Maxwell AFB, AL, 79.
[2] Benjamin F. Schemmer, *The Raid* (New York: Ballantine Books, 2002), 132.
[3]Ibid. 141.
[4] René J. Francillon, *Tonkin Gulf Yacht Club* (Annapolis, MD: Naval Institute Press, 1988), Appendix 1, Combat Cruises, 139, 152, and 159.
[5] Schemmer, 141.
[6] Francillon, Appendix 1, Combat Cruises.
[7] Hugh N. Ahman, Lieutenant Colonel David Mets, Julie Massoni, and Donald D. Little, transcript of oral history interview with Lieutenant General LeRoy J. Manor, Eglin AFB, FL, 26-27 January and 9 May 1988, USAF HRA, Maxwell AFB, AL, 130.
[8] Letter from Brigadier General Darrel Cramer, USAF (Ret), to author, dated September 30, 2001.
[9] Ahman, 132.
[10] E-mail message from Captain P. D. Hoskins, USN (Ret), to author, dated July 8, 2001.
[11] Letter from Captain William M. Campbell, USN (Ret), to author, dated March 1, 2001.
[12] E-mail message from Captain P. D. Hoskins, USN (Ret), to author, dated May 27, 2002
[13] *The Son Tay Prisoner of War Rescue Operation,* Part 2, Section I, 2-3.
[14] E-mail message from Captain Jack S. Kenyon, Sr., USN (Ret), to author, dated September 2, 2002.
[15] *The Son Tay Prisoner of War Rescue Operation,* Part 2, Section I, 1 and 11-12.
[16] E-mail message from Modern Military Records (NWCTM), the National Archives at College Park, MD.
[17] James D. Ramage, Rear Admiral USN-Ret. "Carrier Task Force 77 and the Son Tay Raid," monograph written for the Naval Institute Press, unpublished.
[18] "Strongest Typhoon of Century Kills at Least 30 in Manila Area," *New York Times*, November 20, 1970.
[19] Schemmer, *The Raid,* 192.
[20] E-mail message from Rear Admiral Bruce Boland, USN-Ret. to the author, April 2, 2001.
[21] E-mail message from Captain Russell Clayton York, USN-Ret. to the author, March 6, 2003.
[22] Personal notes of Lieutenant Michael W. Anglin, USNR, Assistant Communications Officer aboard USS Wainwright in 1970.
[23] Francillon, *Tonkin Gulf Yacht Club,* Appendix 1, Combat Cruises, derived from statistical data on each carrier's combat losses.
[24] E-mail message from one EKA-3B pilot known only as "Mitch".
[25] E-mail message from C. W. Gilluly to the author, February 10, 2003.
[26] E-mail message from Commander James H. Oliver, USN-Ret. to the author, January 19, 2003.
[27] Captain G. E. Lockee, USN-Ret., former Commanding Officer of USS Wainwright, "PIRAZ – an Unclassified Summary of PIRAZ (1968)," unpublished monograph, 1.
[28] Bull Durham, *There I Was. Sea Stories from the U. S. Naval Academy Class of 1965.* Baltimore, MD: Gateway Press.
[29] E-mail message from Commander Felton M. Humphreys, USN-Ret. to the author, January 24, 2003.
[30] Ibid.
[31] E-mail message from Commander James H. Oliver, USN-Ret. to the author, January 19, 2003.
[32] E-mail message from Captain Weston H. Byng, USN-Ret. to the author, April 21, 2003.
[33] E-mail message from Commander Jack P. Connell, USN-Ret. to the author, March 9, 2003.
[34] Ibid.
[35] Tom Clancy, *Carrier,* New York: Berkley Books, 2003, 21and John B. Nichols and Barrett Tillman, *On Yankee Station* Annapolis, MD: United States Naval Institute Press, 1987, 36.
[36] E-mail message from Bull Durham to the author, December 24, 2002.
[37] E-mail message from CDR Jack P. Connell, USN-Ret., to the author, March 9, 2003.
[38] E-mail message from Michael Murphy, USN veteran, to the author, August 3, 2003
[39] Letter from the Naval Historical Center to the author, May 16, 2001.
[40] *The Son Tay Prisoner of War Rescue Operation, Part I,* iv.

Table 1

Air Force Aircraft

Number	Type	Take off Base	Mission
1	HH-3	Udorn, Thailand	Land with Blueboy inside of the POW Camp
2	MC-130E	Takhli, Thailand	Lead ships for Helicopters and A-1E fighters
5	HH-53	Udorn, Thailand	Transported Greenleaf and Redwine Groups
5	A-1E	Nakhon Phanom, Thailand	Provided air to ground support for the raid
2	HC-130P	Udorn, Thailand	Provided refueling for helicopters
2	EC-121T	Korat, Thailand	Provided AF radar monitoring for the raid
5	F-105	Korat, Thailand	Provided SAM suppression for the mission
10	F-4	Udorn, Thailand	Provided MIG combat air patrol
2	RC-135M	Kadena AB, Okinawa	Routine airborne operation monitoring
1	RC-135	U-Tapao, Thailand	Radio relay aircraft
12	KC-135	U-Tapao, Thailand	Provided refueling for F-105s and F-4s
2	HH-53	Udorn, Thailand	Provided SAR response for downed crew
4	A-1E	Nakhon Phanom, Thailand	Provided SAR response for downed crew
3	C-130	U-Tapao, Thailand	Shuttled raider crews between the bases
1	T-39	Tan Son Nhut AB, RVN	Command support shuttle

57 Total

Notes:

1. HH-3 came from the 37th Aerospace Rescue and Recovery Squadron at Da Nang AB, Republic of Vietnam.
2. One Combat Talon C-130 came from Detachment 2 of the 1st Special Operations Wing at Pope AFB in North Carolina. The other one was from the 15th Air Commando Squadron at Nha Trang AB, Republic of Vietnam. It was used by the raiders in training flight at Eglin AFB.
3. Two HC-130P tankers came from the 39th Aerospace Rescue and Recovery Squadron at Cam Rahn Bay AB, Republic of Vietnam.
4. Two EC-121 T radar platforms came from the 552 Airborne Early Warning and Control Wing at McClellan AFB in California.

Table 2

Navy Carriers and Aircraft

USS *Ranger* (CVA – 61)

Number	Type	Mission
1	E-1B	Airborne radar platforms for monitoring air traffic and assist fighters in MIG detection and intercepts. "Uniform" orbit.
1	KA-3B	Tanker aircraft launched from Da Nang Air Base.
2	EKA-3B	Electronic countermeasures, jamming of enemy radars and tankers. Launched from Da Nang AB.
2	A-6	Tankers.
2	F-4	Target combat air patrol (TARCAP) for track Bravo and MIGCAP at Station 3.
4	F-4	MIGCAP interceptors for Stations 1 and 2.
4	A-7	Rescue combat air patrol (RESCAP).
5	A-7	Iron Hand – Suppression of SAM and AAA radars.
8	A-6	Track Charlie – Simulation of mining of Haiphong Harbor.
29		

USS *Oriskany* (CVA – 34)

Number	Type	Mission
1	E-1B	Airborne radar platforms for monitoring air traffic and assist fighters in MIG detection and intercepts. "Tango" orbit.
2	EKA-3B	Electronic countermeasures, jamming of enemy radars and tankers. Launched from Da Nang AB.
2	F-8	Barrier combat air patrol (BARCAP) for Air Force C-135 high-flying aircraft – Combat Apple and radio relay.
4	F-8	Force Combat air patrol (FORCECAP) – protection of Yankee Station.
4	A-7	Tankers.
6	A-7	Track Bravo – Flare drops north of Haiphong.
8	A-7	Track Alpha – Flare drop east of Haiphong.
27		

USS *Hancock* (CVA – 19)

Number	Type	Mission
2	EKA-3B	Electronic countermeasures, jamming of enemy radars and tankers. Launched from Da Nang AB.
2		

One EP-3, Big Look long range electronic surveillance aircraft from Guam operated over the Gulf. Total number of Navy aircraft was 59.

Table 3
SON TAY RAID EVENTS
Local Time
November 20-21, 1970

Time	Event
6:45 P. M.	T-39 with Brigadier Genera Manor departs for Da Nang AB.
8:00 P. M.	RC-135M, Combat Apple is on station over the Gulf of Tonkin.
8:00 P. M. to 9:00 P. M.	Two airlift C-130s transport Green Berets with helicopter and HC-130 tanker crews to Udorn RTAFB. One airlift C-130 transports A-1E pilots to Nakhon Phanom RTAFB.
8:45 P. M.	Manor arrives at the Monkey Mountain Command Post.
10:00 P. M.	EC-121T, Frog One takes off from Korat RTAFB.
10:10 P. M.	EC-121T, Frog Two takes off from Korat RTAFB.
10:25 P. M.	C-130E(I), Cherry Two takes off from Takhli RTAFB.
10:55 P. M.	C-130E(I), Cherry One cannot start #3 engine at Takhli RTAFB.
11:05 P. M. to 3:30 A. M.	U. S. Navy EP-3 Big Look from Guam takes up its position over the Gulf of Tonkin to provide electronic monitoring for operations over North Vietnam.
11:07 P. M.	HC-130Ps, Lime One and Lime Two take off from Udorn RTAFB.
11:17 P. M.	Five HH-53 Apples and HH-3E Banana take off from Udorn.
11:18 P. M.	C-130E(I), Cherry One takes off from Takhli 23 minutes late.
11:44 P. M.	Five A-1E Peaches take off from Nakhon Phanom RTAFB.
12:00 P. M.	RC-135 Radio relay from U-Tapao is on Station in the Gulf of Tonkin.
12:35 A. M.	Frog One air aborts due to broken fuel line and recovers at Da Nang AB.
12:36 A. M.	Frog Two replaces Frog One as the new airborne radar platform.
12:40 A. M.	Assault Formation refueling begins over Laos.
12:45 A. M.	Five F-105 Wild Weasels take off from Korat RTAFB.
1:00 A. M. to 1:30 A. M.	USS Ranger's KA-3B tanker takes off from Da Nang AB. Six Navy EKA-3B ECM/Tankers take off from Da Nang. Two are from the USS *Hancock*, two from the USS *Ranger*, and two from the USS *Oriskany*.
1:00 A. M.	Task Force 77 begins launching aircraft from the Gulf of Tonkin.
1:00 A. M. to 2:30 A. M	Twenty-five aircraft from the USS *Oriskany*: One E-1B "Tango", AEW radar platform. Two F-8 BARCAPs. Four F-8 FORCECAPs. Four A-7 Tankers. Six A-7 attack aircraft with flares on Track Bravo. Eight A-7 attack aircraft with flares on Track Alpha.

1:00 A. M. to 2:30 A. M.	Twenty-six aircraft from the USS *Ranger*: One E-1B "Uniform", AEW radar platform. Two A-6 Tankers. Four A-7 RESCAPs. Five A-7 Iron Hands. Six F-4 MIGCAPs. Eight A-6 attack aircraft with flares and chaff on Track Charlie.
1:18 A. M.	First wave of five F-4 MIGCAP aircraft take off from Udorn RTAFB.
1:30 A. M.	First wave of six A-7s from the USS *Oriskany* depart on Track Bravo.
1:32 A. M.	Second wave of eight A-7s from the USS *Oriskany* depart on Track Alpha.
1:33 A. M.	Frog Two establishes radar-monitoring orbit over the Gulf of Tonkin.
1:45 A. M.	North Vietnam launches first SAMs against the Navy aircraft.
1:48 A. M.	Second wave of five F-4 MIGCAP aircraft take off from Udorn RTAFB.
1:52 A. M.	First flares are dropped by A-7s on Track Bravo.
1:56 A. M.	First flares are dropped by A-7s on Track Alpha.
2:03 A. M.	Eight ship wave of A-6s from the USS *Ranger* depart on Track Charlie.
2:08 A. M.	Wild Weasel F-105 arrive in orbit over Son Tay.
2:10 A. M.	First wave of MIGCAP F-4s arrives in orbit over Son Tay.
2:13 A. M.	Assault Formation arrives over the IP.
2:16 A. M.	Strike Formation breaks up abeam of the IP.
2:18 A. M.	Cherry One drops flares over the POW camp at Son Tay. "H" hour begins.
2:19 A. M.	Cherry Two reverses course and begins air drops. Banana with Blueboy lands inside of the POW courtyard. Apple One with Greenleaf lands at the suspected "Secondary School".
2:20 A. M.	Blueboy Elements assault their targets inside the courtyard. Apple Two lands at Son Tay and Sydnor calls for Plan Green. Greenleaf Hq. Element assaults the guard building.
2:23 A. M.	Blueboy Elements search the POW cells. Greenleaf Element #2 holds position at the road intersection. Greenleaf Element #1 provides fire support for the Hq. Element. Redwine #1 clears building 8D. Redwine #2 clears Building 7B. Redwine #4 clears the pump station.
2:24 A. M.	Blueboy Elements find empty POW cells. Redwine #1 clears buildings 4A and 8E. Redwine #3 sets up a roadblock position at the canal bridge. Call for Apple One to extract Greenleaf Group.
2:25 A. M.	AAA radars become active over in the Son Tay area. Cherry Two enters primary radio monitoring orbit.
2:26 A. M.	Peaches One and Two attack the footbridge to the Citadel. Greenleaf Group engaged with enemy prepares for extraction.
2:27 A. M.	Blueboy #1 and #3 report from the courtyard. There are no POWs. Apple One returns to extract Greenleaf.

2:28 A. M.	SAM radars become active around Son Tay. Blueboy #2 reports no POWs in his area. Sydnor calls to revert to the Basic Plan. Redwine #4 blows up electrical power tower. Apple One brings Greenleaf Group to its landing zone at Son Tay.
2:29 A. M.	A1-E Peaches attack the Song Con River bridge. Greenleaf #1 clears Building 7B and 8F and links up with Redwine #2. Blueboy Group reports that there are no prisoners at Son Tay.
2:30 A. M.	Redwine #3 engages a road convoy with LAW. Sydnor issues a command to withdraw to the landing zone.
2:32 A. M.	Apple One is called to extract the first departing raiders.
2:33 A. M.	Redwine Element # 2 checks out the pump house. Cherry Two leaves the primary orbit because of Firecan radar tracking.
2:34 A. M.	Redwine Element #2 fires LAW at a road convoy.
2:35 A.M.	North Vietnamese launch first SAMs in the Son Tay area.
2:37 A. M.	Apple One begins to load the first departing group of raiders.
2:39 A. M.	Cherry Two arrives in the alternate radio monitoring orbit.
2:40 A. M.	Firebird Three is hit by SAM. Replaced in orbit by Firebird Five. Apple One departs with the first group of raiders.
2:41 A. M.	Apple Two lands to extract the remaining raiders.
2:45 A. M.	Apple Two departs from son Tay with the remaining raiders.
2:46 A. M.	Firebird Five is hit by SAM.
2:48 A. M	Apple Three departs from holding area.
2:52 A. M.	HH-3 Banana is destroyed inside of the courtyard.
2:55 A. M.	Cherry Two leaves radio monitoring orbit.
3:17 A.M.	Firebird Five's crew ejects at 090/8 miles from Skyline TACAN.
3:18 A. M.	Udorn's Rescue Center receives report of downed Firebird crew.
3:20 A. M.	Lime One becomes ARRS King 21. Mission and call sign change.
3:25 A. M.	40th ARRS Super Jolly Green Giants at Udorn are alerted. 56th SOS Sandys at Nakhon Phanom are alerted.
3:26 A. M. to 3:50 A. M.	Apples Four and Five locate the downed crew, hook up for refueling with Lime Two and prepare for a rescue pick up. C-123 Candlestick makes contact with the survivors and remains in control until the arrival of King 21.
3:27 A. M.	Cherry One in UHF steer orbit over Laos.
3:50 A. M.	Jolly Greens and Sandys depart home bases.
4:22 A. M.	Cherry Two in orbit north of Skyline TACAN.
6:20 A. M.	Apple Four picks up Firebird Five pilot Major Kilgus.
6:28 A. M.	Apple Five picks up Firebird Five EWO Captain Lowry.
Recoveries	All Navy aircraft returned either to their carriers or to Da Nang.
	Fruit Salad aircraft, MIGCAP F-4s, and Wild Weasel F-105s recovered at Udorn for debriefing.
	EC-121 T, Frog Two returned to Korat.

	All other Air Force and Navy support aircraft returned safely to their home bases.
	Rescued Firebird Five crew returned safely to Udorn.
	Raiders and Fruit Salad crews returned to Takhli after debriefing at Udorn.
	C-141 medical evacuation aircraft that came to Udorn to pick up rescued POWs were used to return the raiders from Takhli to Eglin AFB.

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AIR FORCE AIRCRAFT
in the
SON TAY RAID

Two Combat Talons flew as lead aircraft for the raiding helicopter and fighter formations.

Five Super Jolly Green Giants (Apples One through Five) flew in the Assault formation led by Combat Talon Cherry One.

One Jolly Green Giant (called "Banana") flew in the Assault Formation.

Five Skyraiders (Peaches one through Five) flew in the Strike Formation led by Combat Talon Cherry Two.

HC-130P tankers (Lime One and Two) provided refueling for the raid's helicopters.

Two College Eye aircraft (Frogs One and Two) flew as Air Force radar platforms over the Gulf of Tonkin during the raid.

Ten F-4s, called Falcons, flew MIG Combat Air Patrol over Son Tay.
Twelve KC-135 tankers provided refueling for jet aircraft.
Ten tankers flew over Laos and two flew over the Gulf of Tonkin.

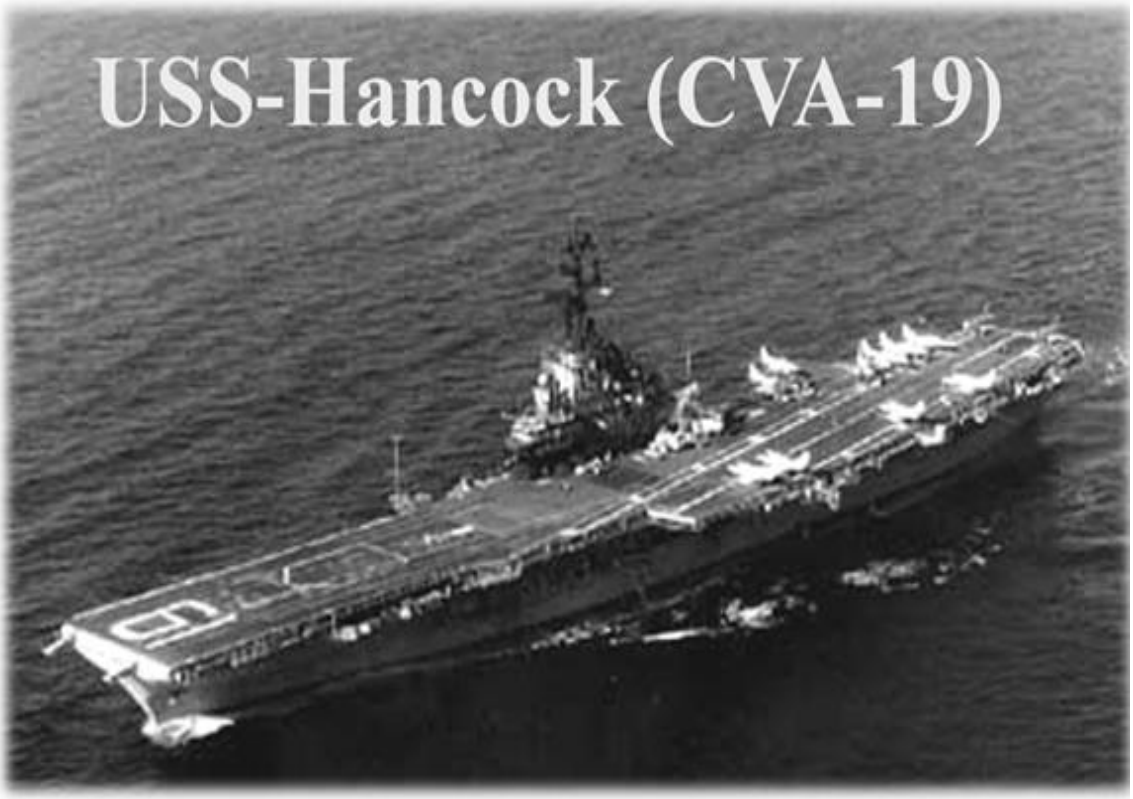
Five F-105 Wild Weasels, called Firebirds, provided suppression of enemy surface to air missile (SAM) and antiaircraft artillery (AAA) radars during the raid.

Two Okinawa based Combat Apples flew over the Gulf of Tonkin, monitoring aerial activity over North Vietnam during the raid.
One similar C-135 aircraft from U-Tapao, Thailand provided radio relay transmissions between the raiders on the ground and the Command Post near Da Nang in South Vietnam.

NAVY CARRIERS and AIRCRAFT

USS Oriskany launched 27 aircraft to create a diversion for the Son Tay raid.

USS Ranger launched 29 aircraft in support of the raid.



USS Hancock launched two EKA-3B Tanker/ECM aircraft from Da Nang AB.

Two E-1B aircraft flew as radar platforms for the TF-77 diversionary attack on Haiphong during the Son Tay raid.

Twenty seven A-7s flew diversionary attack tracks near Haiphong in support of the Son Tay raid.
Fourteen were attack aircraft. Five flew "Iron Hand" mission.
Four flew RESCAP. Four were tankers.

Ten A-6 Intruders supported the raid on Son Tay by flying diversionary tracks in the Gulf of Tonkin

Six F-4s flew MIGCAP on the coast of North Vietnam during the Son Tay raid.

Six F-8 Crusaders flew BARCAP over the Gulf of Tonkin
in support of the Son Tay raid

One KA-3B tanker aircraft flew in support of the diversionary attack in the Gulf of Tonkin

Six EKA-3Bs flew as tankers and ECM jammers over the Gulf of Tonkin supporting the Air Force and Army raid on Son Tay POW camp west of Hanoi.

One P-3 Orion from Guam, flying over the Gulf of Tonkin, supported the Son Tay raid by monitoring North Vietnamese electronic and voice transmissions.