in the Pacific

avoc

What was the P-70? A night-fighter version of the adaptable Douglas A-20, Warren E Thompson explains

WHILE BOTH Germany and the UK made great strides in the development of night-fighters, the US looked on, their leading military minds seeing such an aircraft as a long-term requirement. Finding that war was probably unavoidable, the US plunged into research and development that led to Northrop producing the legendary P-61 Black Widow. It quickly dawned on the US that it had to come up with a stopgap and that the solution would be the Douglas A-20 Havoc. With added armament and the British Mk.IV radar unit, this became a night fighter known as the P-70.

It was no secret that the US military was extremely weak in the Pacific and it would be hard pressed to defend Hawaii and Wake Island alone. While the Japanese had good intelligence on Hawaii, they were guessing about other areas such as the Philippines and Wake. Published figures show that the USAAC had approximately 200 fighters in the Pacific theatre by mid-1942. By the autumn of 1942, this number had only increased to 319, therefore the US could only hope to fight a holding action and was certainly in no shape to go on the offensive.

The arrival of this makeshift night-fighter into the Pacific theatre did not happen overnight. The reasons the A-20 came to be chosen was that it was still in production and it had the internal capacity to house all the necessary radar gear. While it could carry an ample amount of firepower in its nose (0.50 calibre machine-guns), many were fitted with a gun-pack fitted under the bomb bay, which housed a much more powerful set of guns (20mm cannon). There was still a problem in that the A-20 was in high demand over in Europe, and the flow of converted night-fighters into the Pacific region would be painfully slow.

The landings on Guadalcanal in August 1942 proved to be the one event which initially showed the weaknesses of the US night-fighter programme. The Marines were under tremendous pressure from Japanese Navy Mitsubishi G4M *Betty* bombers operating in darkness. The few Marine and Navy fighters in the area had given the Japanese hell during the day, so the action was switched over to night 'ops'.

Henderson Field and its perimeter were hammered unusually hard by the high-flying Japanese bombers, which met practically no resistance apart from anti-aircraft fire. For several months, it seemed that the enemy bombers were operating with a season ticket giving them free rein in the night skies over Guadalcanal. Japanese air units were flying out of bases on Munda (one hour's flying time) and the Russell Islands (30 minutes away). By early 1943, the situation had become critical.

Early on in the Pacific theatre, the first US squadron to be designated as a true night-fighter squadron had been the 6th, which had been based on Hawaiian soil all the way back to 1917. This outfit became the first to receive the new Douglas conversions and even though the type had some faults, it was a welcome addition, filling a big void in what was a holding war. The first P-70 was flown into Stanley Field (located on a strip of Schoffield Golf Course). This was a very dangerous strip as it was necessary to land uphill and downwind on an unlevelled grass runway with only about 150ft (45m) between rows of trees on either side. Because of the strong possibility of losing valuable aircrews and aircraft, the squadron was quickly moved to Kahuku Point before it received the remainder of its allotted P-70s.

Only one XP-70 was produced (converting A-20 39-735). The initial series were designated as P-70s with no letter after the number: a total of 59 of these were built. They were easily discernible as they had the 20mm cannon pack in the belly, with radar antennae protruding from the nose where the bombardier station had been in the A-20.

Next model to come off the line was the P-70A-1. About 40 were converted: they could be distinguished by the rack of 0.50 calibre machine-guns mounted in the nose and they still retained the cannon packs. This configuration made the 'As much heavier weight (by two tons) than the straight P-70s. Finally, in late 1943, the next sequence came off the line and these dispensed with the 20mm gun pack. These were designated P-70A-2, the production run coming to 65 aircraft. What few models came along after the 'Dash-2' were insignificant and outdated due to the Black Widow's entry into the night-fighter programme on an operational basis.

Needless to say, the urgency of the situation brought about a fast training regime for the new aircraft. Lt John Florence, one of the initial cadre trained at the newly-formed Night Fighter Schoolhouse at Orlando, Florida) describes the chain of events:

We all arrived at the facility in September 1942 in response to a TWX [Theatre War Exercise] *that anyone who wanted to be overseas in 90 days could enter this school, which was just starting up using the very early P-70 conversions to train with. In 120 days, eight crews (pilots and radar operators) were on their way to join the 6th Night Fighter Squadron at Kipapa Field, Hawaii, on the Dutch freighter,* Koda Agoeng.

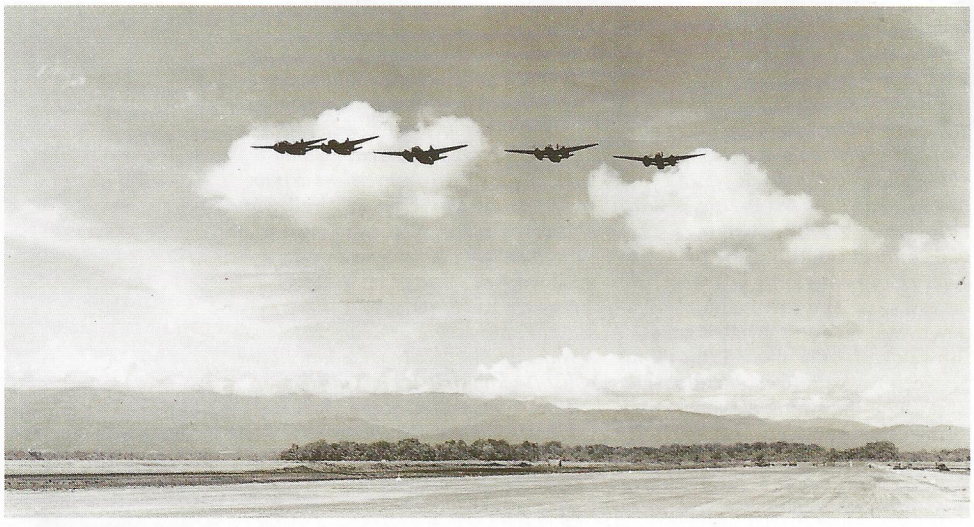
This happened in February 1943 and by the time we finally got to Hawaii, the first Detachment ('B') had already left for Guadalcanal in the Solomon Islands. They had flown out in the first P-70s that had arrived on Hawaii, by boat.

The receiving antennae for the British AI. Mk.IV radar clearly shown along with the unique nose-art of Detachment 'A'.
FRED SECORD

There were not too many concerns about how effective the P-70s would be, but there was some doubt about how the radar would perform, especially in the humid forward air bases of the Pacific. Reading the radar scope accurately as to azimuth and elevation required much patience on the part of the radar operators. The pilot had no scope presentation, so the R/Os acted as the 'eyes'.

BELOW: *The five surviving P-70s of the Guadalcanal Detachment make a formation pass over Henderson Field in mid-1943.* RALPH JONES

"...THE AIRCRAFT was only as effective as the R/O and as they became more proficient, the better the chances of making a 'kill'."



On a night intercept, the aircraft was only as effective as the R/O and as they became more proficient, the better the chances of making a 'kill' increased. Once the Northrop P-61s were operational, aircrew efficiency reached perfection.

None of the pilots of the 6th were enthusiastic about flying the P-70 as they had all flown the Curtiss P-40 Warhawk prior to the arrival of the first night-fighters. They would much rather be in the Lockheed P-38 Lightnings which were beginning to make their way into various squadrons in the Pacific.

MOVING INTO THEATRE

The first detachment departed Hawaii for Guadalcanal on February 18 with six P-70s and two Consolidated LB-30 (B-24) 'mother ships'. As they landed after each leg and spent the night, their living conditions progressively deteriorated. Some of the small island airstrips were frequently shelled by Japanese submarines during the night.

There were times during the long flight to Guadalcanal when the flight was hit by violent squalls of rain which tested both the crews' luck and their instrument flying skills. Lt Dick Ehlert recalls some tense moments:

I was in the No.1 plane in the left echelon. The squadron commander, Major Wharton, was in the No.1 slot on the right. After a few minutes of low visibility, he decided to move below and directly to the rear of the LB-30. He thought that this would allow his Nos.2 and 3 ships to move closer to the lead aircraft and have a better chance of maintaining visual contact.

During periods of relatively good visibility, I could look down directly into his cockpit and could see that he was having a hectic time maintaining his position. I could see him shoving the throttles to the firewall and alternately pulling them all the way back to idle.

He was having a very difficult time of trying to avoid hitting the mother ship. I heard him radio that he had to get the hell out of there, throttling back. Then I saw him give it the gas and stand his P-70 on its right wing and go right up through the formation. About that time, we felt a small bump and continued on. I could only see one plane on our left wing at the time.

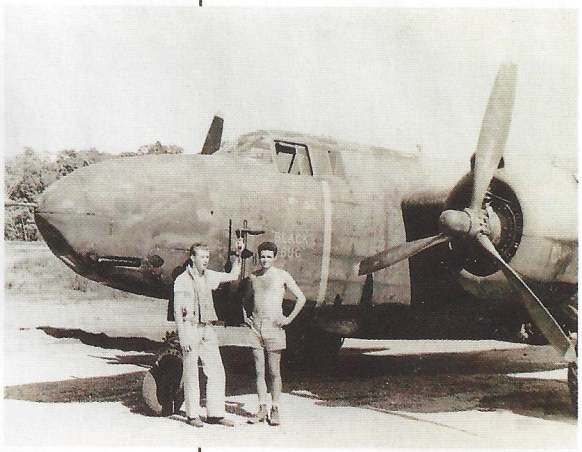
A few minutes later, we passed the squall line and were out in the clear, but instead of six P-70s only four were visible. The LB-30 began a slow circle and we heard some radio calls that sounded like they came from our CO. Sure enough, as soon as radio communications were restored, he was given a steer and minutes later, joined back up in the formation. As for the other aircraft, we never saw or heard anything further. They were lost.

As a post-note to this flight, when we landed at Nandi, on close inspection of our P-70 we noted a distinct gash between our elevator and horizontal stabiliser. It was a tragic guess, but the bump that we had felt was probably the missing aircraft and the damage to them proved to be fatal.

A stopover at Espirito Santo was made in order to remove the huge fuel tanks which had been inserted into the bomb bay for the long over-water flight and replace them with the Airborne Intercept (AI) gear. Overall, the journey was uneventful until the penultimate leg, which was from Brisbane to Townsville.

The remaining aircraft had proceeded to a crude runway on the coast, about 3 miles (4.8km) from Port Moresby, and which was consequently called 'Three Mile Strip'. Here, they were under the control of 5th Fighter Command. The 9th Fighter Squadron, with its P-38s was operating from the same strip with future 'ace' Richard Bong among its pilots.

FAR LEFT: *By the time the P-61s were in production, no more P-70s were sent into combat – instead they served in the training command. This view taken over California in early 1944 by Northrop.* NASM



'BETTY' HUNTING

Since they were quite some distance from the hard-core night action that was taking place on Guadalcanal, there were only limited opportunities to intercept *Betty* bombers. This was just as well because the newly-converted night-fighters had a difficult time getting up to the altitude at which the enemy bombers were flying, and consequently the opportunity for a kill was limited.

This trait was why the P-70's 'fall from grace'. Lt John Florence explains the problem:

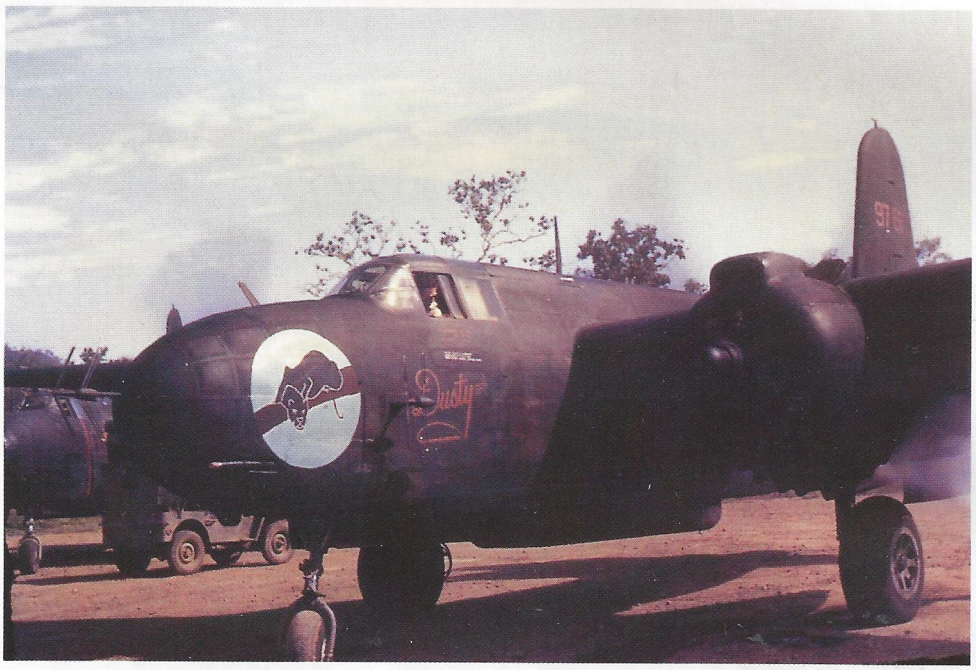
Operationally, with only five P-70s, our mission was to intercept bombers sent over our area at night. Since we could not get up to where they were, regular patrols were out of the question. When our ground radar picked up an inbound enemy flight over the Owen Stanley mountain range, we would scramble only one aircraft and on most occasions, it was futile. Our standard operating procedure was to fly a couple of P-70s over to Jackson Airdrome (or 'Seven Mile Strip') every evening and then return after sunrise. The strategy behind this was strictly for our own safety, as we needed the longer runway and 'Three Mile Strip' had hills at either end.

Action was sparse and the Japanese were becoming increasingly cautious at night. Marine fighters had chewed them up during the day, so a couple of *Betty* bombers over Henderson Field at 3am was all that was needed to keep the Marines awake.

The term 'Washing Machine Charlie' was coined around this time. The Japanese would send over a light aircraft with its engine slightly out of sync making a pulsating noise that sounded like an old washing machine. This was very disruptive and kept everyone from getting a good night's sleep.

(The same tactic was used during the Korean War when the name given to such antiquated aircraft was 'Bed Check Charlie').

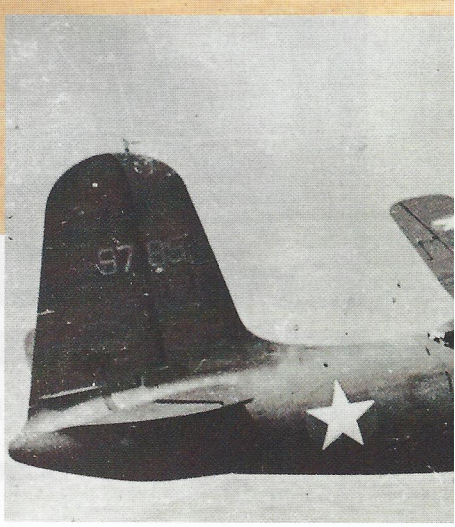
The fact that the 90mm gun batteries were hammering away at these aircraft probably kept the troops wider awake than the enemy aircraft did. Despite this, the Marines would rather have seen these little noise-makers shot down than any of the high-flying *Betty* bombers!



"THEN I SAW HIM give it the gas and stand his P-70 on its right wing and go right up through the formation."

ABOVE RIGHT: *Plt Lt Bruce Johnson (left) and his R/O Sgt Orval Merrihew with their P-70 'Black Bug'.* BRUCE JOHNSON

ABOVE: *P-70 'Dusty' from Detachment 'A', parked on New Guinea, fires up its port engine.* FRED SECORD



Lt Fred Secord (left) and next to him his R/O, Lt Carl Hale in front of the knowingly-named 'Black Widow'.

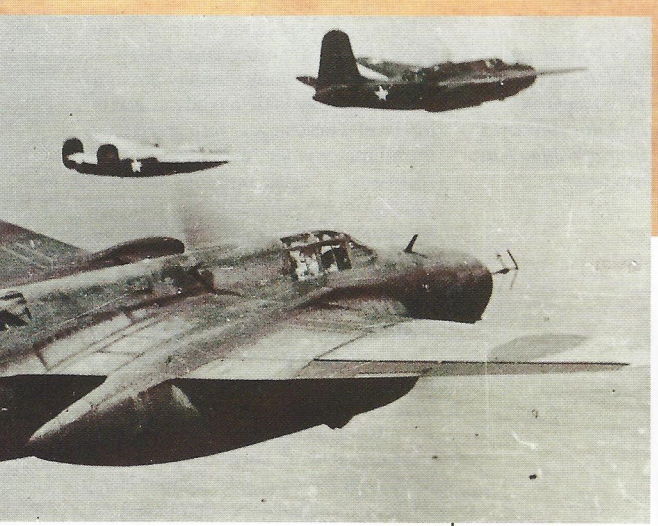
On April 19, 1943, Lt Earl C Bennett and his R/O Corporal Edwin Tomlinson claimed the first P-70 'kill' for the 6th NFS – an operation described by an observer as 'utter chaos'! It should be realised that the anti-aircraft batteries were operating as a separate force – nothing was co-ordinated. If any night-fighter was in hot pursuit, it was just tough luck if he came within range of the anti-aircraft gunners.

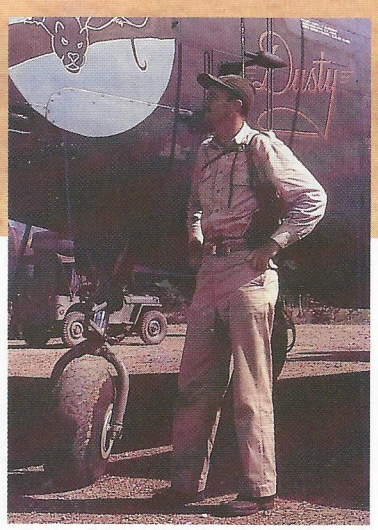
Several of the 6th pilots stated that it was disheartening to have to weather your own 90mm fire in order to close in on a potential kill – nevertheless they did it! It was under circumstances like these that Bennett and Tomlinson made their kill.

The P-70 locked on to the *Betty* bomber and chased it right over Guadalcanal and into the intense 90mm fire. The night-fighter's tracer rounds were easily seen from the ground. The pilot of the Japanese bomber must have thought he had entered hell because of all the lead coming his way from two different directions and nowhere to turn.

After a few seconds of fire from the pursuing fighter, the *Betty* exploded in a massive ball of orange flame. The crowd on the ground erupted into elation as the fiery mass plummeted to

A P-70 moving out to the long main runway at 'Twelve Mile Strip' for a quick engine test.





earth. This 'kill' was probably due to a lack of Intelligence on the part of the Japanese or because the bomber pilot had grown careless. He was too low, and if he had come across the island at altitude, he would have been safe.

When the *Bettys* came over on their nightly raids, a P-70 would launch, though the effort was usually futile. They could not get up high enough to shoot, so the bombs continued to drop and the damage escalated on the ground.

In mid-June, a change was made in order to counter the bombing attacks. The P-70 was replaced by the P-38J which could certainly get up as high as any Japanese bomber, though it did not have assistance from onboard radar. The P-38Js made an instant impression on the enemy bomber crews, shooting

The 6th NFS took six P-70s to New Guinea with the help of two LB-30s.

Fred Secord with his personal P-70 'Dusty'
ALL FRED SECORD

"IF ANY NIGHT-FIGHTER was in hot pursuit, it was just tough luck if he came within range of the anti-aircraft gunners."

down four of them in 30 days. With these sudden losses, the number of nightly flights dropped drastically.

Then the Japanese initiated a new strategy – sending their bombers skimming in very low to drop their bombs and get out quickly. This worked, but accuracy standards went out the window!

As other night-fighter squadrons formed up and shipped out into the Pacific theatre, they were also armed with P-70s, and as with the 6th, these converted fighters were pushed rather to the back of the priority list. The P-38 and North American B-25 Mitchell were worked into the high-altitude night intercept roles with the 418th and 419th NFSs. Although their success rate never came close to that achieved by the Black Widows, the Japanese knew they were in for no more free rides.

NIGHT ATTACK ON RABAUL

One of the most daring and exciting missions of the P-70's brief career was flown by a seasoned veteran, Lt Al Lucas of the 419th NFS, who had joined the war early and had flown with the RAF in 418 (RCAF) Squadron on Douglas Boston IIIs. This mission occurred on the night of January 9, 1944.

As the night intercept role of the P-70 had been greatly reduced, Lucas 'sold' his commanding officer on the idea of sending a lone P-70 on a long strike against the Japanese stronghold of Rabaul. If it proved successful, it was bound to stir up a hornet's nest – but it was felt to be well worth the risk and would prove to be the first low-level night raid against such a well-defended Japanese fortress.

After careful planning, Lucas and his crew took off in the morning from Guadalcanal and made it to Munda for lunch and refuelling. The next leg would take them to Torokina by dark, giving them until 11pm to gas up, eat and get some rest.

After launching from Torokina, they hugged the western coastline of Bougainville, heading toward Buka Passage. Lucas recalls some of the details:

We were skimming along at wave-top, in the moonlight, and we made a perfect hook-up with Cape St George just as we planned, and at that point I changed course to 115 degrees. Moments after we had our new direction, my gunner yelled that we had a 'bogey' above and astern… it was a Japanese Dave *floatplane. It never saw us and we had a perfect chance to shoot it down, but that was not on our 'things to do' list.*

A good view of 'Twelve Mile Strip', near Port Moresby. Some P-70s of Detachment 'A' used this runway as their operating base. FRED SECORD

They proceeded along the west coast of New Ireland, hitting some heavy rain squalls that took visibility down to zero – and they were already at wave-top level. Lucas's eyes were glued to the altimeter while his R/O, Lt Blankenship, made sure they stayed away from land. New Ireland had old volcanoes about 3,700ft (1,120m) along the coast, with peaks that jutted all the way up to 6,000ft (1,800m).

After a short period filled with anxious moments, they hit their checkpoint at Duke of York. From there they set a course for Watom Island – the most vital checkpoint of the mission as it would vector them right into Rabaul. Lucas continued:

Minutes after Duke of York, we were over the Vara Vara Plantation – by this time we were skimming over the tree-tops at full speed. Everything was coming together and I pointed the nose of the aircraft right at our target. As the terrain rose, Suddenly, ….we were right over the harbour, exactly where we were supposed to be. I dropped the nose and headed down for the line of docks and Japanese naval vessels, the fuel dump and the old Chinatown area which housed the former British hotel 'Australia House,' which was now the Japanese High Command HQ.

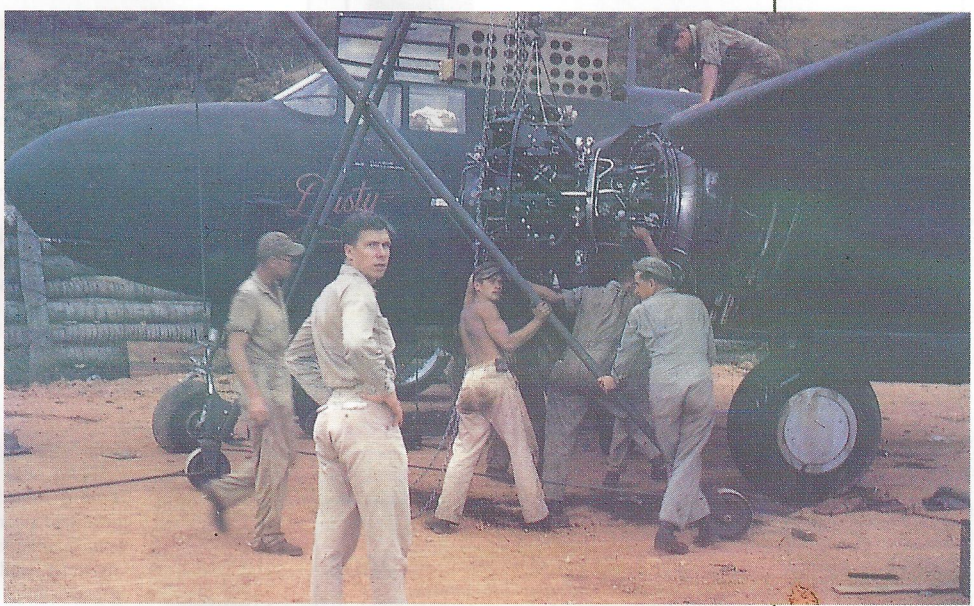
Lucas intended to drop four 100lb (45kg) high incendiary bombs and 60 4lb (1.8kg) packets of incendiaries about half-way down the long dock row. With an indicated airspeed of 300mph plus, and as low as he dare go, he dumped the bomb load with the targets just one moving blur. The stick of ordnance hit perfectly on the docks and continued right on through the fuel dump and into 'Australia House'.

The R/O was calling out the results and it was better than listening to a football game on the radio. The cloud ceiling over the target area was at 900ft, so the view was picture-perfect. The searchlights started to come on, but tucking his tail right over the water, the P-70 stayed well below their beams!

Unknown to me at the time, one of my ex-RAF buddies, Lt Talbot Kelly, who had helped me plan the mission, had heard of my success on the radio and talked the CO into letting him pull off the same caper the next night.

As I was flying home on the last leg of the return flight on the night of the 10th, he must have passed me on his way to Torokina. He made it there, but after he launched on the final leg to Rabaul, we never heard from him again. It was a tragic loss. Maybe the enemy was ready for him or maybe a tropical rain squall got him. We will never know.

Detachment 'B' remained on station in New Guinea for what seemed like a long eight months and although not fighting with top-notch equipment, its members learned a lot. They were called back to Hawaii in the late autumn of 1943, to be replaced by the 419th NFS, which arrived on Guadalcanal in late November.



Detachment CO Captain Robert McLeod (in the foreground) keeping a close eye on the engine change on P-70 'Dusty'. FRED SECORD

"...TUCKING HIS TAIL right over the water, the P-70 stayed well below their beams!"

LEFT: *Flt Off Cavelli of the 6th NFS's Detachment 'A' poses beside 'Stygian Pigeon' at a base in New Guinea.* CARL HALE

Seconds later, Lucas started climbing to clear the crater's edge that made the harbour and once over, he set course for Laveo Point. Behind the night-fighter were scores of searchlights that beamed straight up in a futile effort to find the aircraft responsible. Once clear of Rabaul, the action was still not over.

As Lt Lucas approached Cape St George, he spotted a well-known enemy radar installation familiar from many reconnaissance photos. With all the aircraft's 0.50-calibre ammunition still intact, he began a strafing run on the target and as he pulled up, the gunner let go with his rear 0.30-calibres. One more pass later the guns ran dry, but the damage inflicted on the radar site was tremendous. Afterwards, they made an uneventful flight back to Torokina, landing at 3am.

Though the mission was successful, there was a tragic aftershock. Lucas explained:

The new squadron, using the 6ths aircraft, flew its first night patrols on December 10. By this time, the aircraft inventory stood at just three P-70s and eight P-38s. They continued the same regime as the 6th had developed during its final four months – the P-70s to be used for night intruder missions and the P-38s continuing to handle the night intercepts.

P-70s performed a much more significant contribution in the training mode because most of the night-fighter aircrews had a lot of flight time in the Havocs during their advanced training. By the latter months of World War Two, the P-61 had completely taken over all aspects of the operational and training regimens in this specialised brand of aerial combat.

US and RAF night fighters were an elite fraternity whose expertise sealed off the only 'safe haven' the enemy had to operate in. To make this easier to understand, the US trained 35,000 day fighter pilots during World War Two: by contrast, only 485 night-fighter crews were trained over the same period.