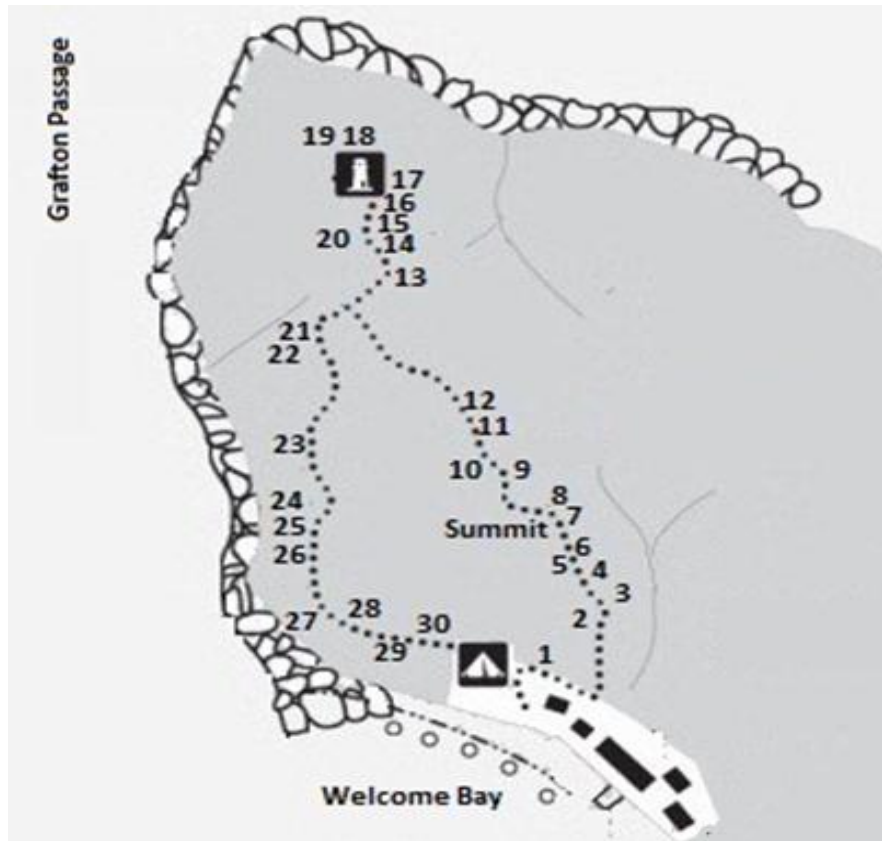


# Self-Guided Summit and Lighthouse Historical Hike

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*The track may not be exactly as it appears in this diagram*

Take only photographs; leave only footprints

## Abbreviations

A/S	Anti-Submarine
Doover	The combination of the RDF, tower, transmitter, receiver, aerial and personnel hut
F/O	Flight Officer
HotH	House on the Hill
IJN	Imperial Japanese Army
L/A	Leading Aircraftmen
LISA	Loop Indicating Signal Apparatus
Lt	Lieutenant
MCS	Mesoscale Convective System
QPWR	Queensland Parks and Wildlife Rangers Service
RAAF	Royal Australian Airforce
RAN	Royal Australian Navy
RDF	Radio Direction Finder
WSS	Wireless Signal Station
W/T	Wireless Transmitter

## **Fitzroy Island: home of No. 28 Radar Station and the Lightkeepers**

In the lead up to the war members of the IJN were scouring the northern coast disguised as fishermen. They examined various islands and inlets to map locations that could prove useful after they joined the fight. A team arrived on Fitzroy Island in November 1938 and made note of its numerous freshwater springs before being discovered and forced to flee ahead of the coastguard *Vigilante*. From the moment war broke out in Europe, Germany had Raiders cruising Australian waters sowing mines along the coast and attacking merchant vessels. As conflict spread across the Pacific Theatre, IJN submarines joined their German counterparts prowling Australia's shores and striking at her vulnerable shipping. Their joint campaign was so effective that it has been labelled the most successful enemy campaign ever undertaken against Allied shipping in Australian waters. In retaliation a series of Radar Stations were established along the coast: an additional 19 stations were erected and manned in 1942 alone. Six were dotted along Tropical North Queensland's east coast. One was No. 28 Radar Station on Fitzroy Island. Radar Stations played a significant role in locating and identifying enemy vessels.

At the dawn of World War II, radar was a revolutionary new technology that had a significant impact on the outcome of individual battles and, ultimately, on the war itself. The improved technology had to be kept a strict secret and Fitzroy Island was no exception: one of the Station's guards faced disciplinary action after he spoke freely about the Station and its work while on shore leave. Regulation Identification Cards had to be recalled and reprinted after those dispatched to the island identified the Unit as an RDF Unit and a security breach was reported when food supplies were labelled 'Fitzroy Island' rather than 'Cairns'. Very few images exist of the island during the war years; cameras were immediately confiscated by the Officer in Charge and guards were mounted at the buildings to prevent unauthorised access.

The Unit was formed from a combination of the RAAF and RAN, and collectively known as No. 28 Radar Station. The servicemen operated multiple defensive devices including a Lighthouse, W/T, WSS, RDF and Submarine Indicator Loops. The Unit officially began work on 21<sup>st</sup> December 1942 and was closed on 4<sup>th</sup> October 1945.

Throughout the war Fitzroy Island hosted over 100 men during one of the most stressful periods in Australia's history, and they played their part brilliantly. They safely guided hundreds of servicemen to safety and successfully identified and monitored one, possibly two, enemy submarines that had penetrated the Grafton Passage. They cut the first road across the island's mountains and created a small community, portions of which remained behind after the war.

As the decades progressed their influence over the island gradually diminished as the Lightkeepers came into their own, reshaping the face of Fitzroy to meet their different needs. In the 1950's Fitzroy Island was declared a National Park and the QPWR began efforts to restore the island's native beauty. However, some remnants from both preceding periods remain, forever linking the tourism destination we know and enjoy today to the isolated island experienced by the servicemen and their Lightkeeping successors.

### **1. Dam constructed by No. 28 Radar Station Personnel, 1942**

#### **Visual Sighting: rear of the Dam alongside track (marker on the right hand side)**

This island has always enjoyed an abundance of fresh water flowing across several small creeks and streams. They cut their way down the mountainside and have shaped the face of Fitzroy. When No. 28 Radar Station personnel arrived they recognised the need for a dam and with military efficiency they swiftly created a small weir. The structural integrity was so sound that it is still in use today with very few alterations to the original design. The roof was purposely built to avoid mosquito infestations and the station avoided the outbreaks of dengue fever and malaria which were prolific in Cairns. In fact the No. 28 Radar Station was regarded the cleanest station in Tropical North Queensland. Sadly, this achievement was lost as the years progressed due to unsanitary conditions in the showers leading to an infestation of tinea.

## **2. The Hazards of Mines**

### **Visual Sighting: scrubland (marker on the left hand side)**

Mines were a constant hazard for wartime shipping. Whilst some sinkings were the result of minefields sown by enemy vessels, it turned out to be our own mines that proved the most hazardous. Defensive minefields were laid with banal regularity along strategic coastal positions. Occasionally a single mine would slip its mooring and float freely on the currents where it became a serious hazard to Allied shipping.

Mines haunted the waters around Fitzroy Island between 1943 and 1952. Individual cylinders would pop up periodically, threatening both the ships anchoring inside Welcome Bay and the safety of those ashore. Some mines were defused by specialist teams, but others were not spotted in time, and exploded against the granite boulders framing the beach.

One mine surpassed the rest for its impact on the island: following Japan's capitulation when Japanese foreign minister Mamoru Shigemitsu signed the official declaration of surrender aboard the USS *Missouri*, wartime activities all over Australia started winding down. The team on Fitzroy Island was busy preparing to shut down the station when a mine erupted on Fitzroy's foreshore igniting the surrounding vegetation and unleashing a wildfire of epic proportions. The men of No. 28 Radar Station fought desperately to save their camp, their equipment and their very lives. The fire burned with such intensity that the smoke completely obscured the Lighthouse's beam for several days. By the time the fire was doused nearly half the island lay smouldering. The electric cable used to power the light was so impaired that it took another week to return the beam to full capacity.

## **3. Submarine Indicator Loops in Welcome Bay**

### **Visual Sighting: view over Welcome Bay (marker on the left hand side)**

Submarine Indicator Loops were an effective tool for locating submerged enemy craft. Special cables were laid across the sea bed, able to detect the minute magnetic pulses emitted by passing submarines. There was no method that a submarine crew could employ to prevent this; even if a submarine was degaussed or 'wiped' it still emitted a magnetic pulse that created small, detectable currents.

The Indicator Loops in Welcome Bay were positioned in three loops called lobes. The main lobe was placed in the centre of the two smaller lobes, each of which was inclined at 25° to the main lobe. The two smaller lobes had 20% of the main lobe's strength. All three lobes met in a 'tail' that led to shore. A conductor was fitted to the right lobe to act as a variable resistor used to equalize the resistance of both half-loops, and located inside the Loop Control Hut on shore. When a magnetised vessel passed over the conductor it produced an induced voltage that was recorded on specialist equipment located inside the Loop Control Hut, monitored by members of the RAN. When a Japanese submarine was discovered lurking in the Grafton Passage, its movements were carefully monitored using a combination of the Submarine Indicator Loops and the RDF equipment.

## **4. Coastal Convoys**

### **Visual Sighting: view over Welcome Bay (marker on the right hand side)**

Despite the defensive minefields strewn along the coast, Japanese submarines were a constant presence. Their surprise attacks exacted a far greater toll on Allied shipping than those of the German Raiders. In the first six months of 1943 IJN submarines sank ten vessels along the Queensland coast alone, damaged three and unsuccessfully attacked a further eight. This forced the Australian Government to introduce coastal convoys. Merchant and troop ships travelling through Australian waters were joined by anti-submarine escorts. These escorts ranged from Corvettes to Destroyers, Sloops, Submarine Chasers and Torpedo Boats. During the day the convoys were monitored by various RAAF aircraft hovering above.

Welcome Bay was recognised as a perfect rendezvous location for the warships as they exited and entered convoys according to need. On 24<sup>th</sup> June 1942 HMAS *Swan* detached at Fitzroy Island from a convoy escorting the SS *Swartenhondt* as it shuttled refugees from Port Moresby to Townsville. HMAS *Swan* then joined the corvette HMAS *Bendigo* at anchor in Welcome Bay, lingering until the SS *Tasman* and *John Jay* passed through on their way to Port Moresby. HMAS *Swan* and HMAS *Bendigo* promptly joined the ships as their protective escorts. This is one example from hundreds of wartime transactions in Welcome Bay; most days saw a warship or two waiting patiently off the island for their next convoy.

**5. The Grafton Passage: the only open coastal path between Tropical North Queensland and the Frontline**  
**Visual Sighting: view over Welcome Bay (marker on left hand side)**

The Great Barrier Reef was extensively mined in a bid to close off the numerous channels allowing enemy access to the Queensland coast. HMAS *Bungaree* periodically toured the reefs around Cairns to lay fresh minefields. The only coastal path left open to Allied shipping was through the Grafton passage, past Fitzroy Island. This made the Grafton Passage extremely busy, as Cairns was the main port for dairy, timber, crop farms and cattle stations. In addition to local produce, the city accounted for a quarter of the supplies imported from America, as well as every merchant and military craft en route between Townsville and the Papua New Guinean front line, and from Papua New Guinea to every major battlefield further abroad. All in all, No. 28 Radar Station had its hands full confirming the identity of every single craft to pass the island, both on the water and in the air. Throughout 1943 the team was processing over 200 plots a day. This decreased as the war progressed: from 1944 onwards the station focussed less on confirming the identity of craft and more on assisting returning pilots to land safely; especially those who had become disorientated.

**6. Amphibious Landing Craft practice**  
**Visual Sighting: view over Welcome Bay (marker on the left hand side)**

In the lead-up to the 1944 Borneo beach assaults several beaches around Cairns were transformed into training grounds for Amphibious Landing Craft. On 31<sup>st</sup> October 1944 the Combined Operational Fleet set sail for Fitzroy Island to allow their crews to gain vital experience negotiating the coral reef surrounding Welcome Bay. This practice would prove essential when the time came to pit their skills against the Japanese defenders in the Pacific Theatre.

**7. The Cross**  
**Visual Sighting: extremely faint red cross painted on far end of large boulder facing platform (marker on the right side of the track, near rock when approaching platform)**

It is not known when this cross first appeared, nor who painted it. There are several possibilities. Chaplains regularly toured Fitzroy Island holding services for the members of No. 28 Radar Station who wished to attend. It is possible that the cross was marked by the military chaplain so that the men could enjoy the island's beautiful views while listening to the Word.

It is equally possible that the cross was painted in the decade after by a bereaved relative who had just lost a loved one. Head Lightkeeper L. Daniels lost his wife tragically in February 1955, when she slipped from rocks while collecting shells, and drowned. Misfortune struck again the same year when Lightkeeper W. Leahy succumbed to Weil's disease at Christmas time. The Lightkeepers' operational log does not record whether the bodies were removed from the island or if they were buried somewhere on Fitzroy.

## 8. Radar Beacon

**Visual Sighting: metal fragments embedded in multiple granite boulders around platform (marker on the ground towards the largest granite boulders)**

A beacon is a radio transmitter for air and sea navigation. Beacons are often described as the radio equivalent of a lighthouse since the transmitter sends out a Morse code transmission either on Long Wave (150 – 400 kHz) or Medium Wave (520 – 1720 kHz) frequency. When No. 28 Radar Station operators were attempting to locate the electrical signal emitted by unknown vessels they would first identify its signal frequency, a feat they could accomplish through the beacon. The next step was to determine the craft's direction of travel by calculating when the signal was at its weakest versus its strongest. This method allowed members of No. 28 Radar Station to track the enemy submarine discovered in 1943 and to redirect Allied aircraft to a safe landing.

The beacon had to be serviced regularly, especially in the humid tropical atmosphere where electrical fatigue occurs more frequently than in cooler climates. On one occasion a number of men were at the Summit carrying out maintenance on the beacon and its framework when a fire spontaneously erupted from the surrounding scrub. The cause of the fire was never discovered. If you look closely you can still see several metal fragments from the beacon's structural support carved into the Summit's giant granite boulders.

## 9. Z-Force Commandos training for *Jaywick*

**Visual Sighting: view over Grafton Passage (marker on the right hand side)**

During the war Cairns was predominantly a military town and one of the many top-secret military organisations operating out of its scrubland was the House on the Hill, also known as the Z-Experimental Station. Off limits to civilians, the HoTH was one of many locations utilised by the legendary Z-Force, an elite Commando Unit whose members were dropped deep behind enemy lines to perform sabotage, reconnaissance and to train natives in guerrilla warfare. Their most famous raid was the remarkable Operation *Jaywick*. A small team of 14 travelled to Singapore aboard a refurbished fishing boat where six broke off to paddle 50Km undetected into Singapore Harbour. They laid limpet mines and sank seven ships, equating to 40 000 tons. The team spent a full 33 days in Japanese territory disguised as fishermen before they escaped back to Australia. It has been labelled "*the most audacious and longest sea-raid in the history of naval warfare*".

The team trained hard in the rainforests around Cairns to prepare for their mission. One of the greatest endurance tests they were subjected to was to paddle 1217Km (as the crow flies) between their secret Commando School on Fraser Island and the HoTH. It would have taken the men directly past Fitzroy Island. What the men of No. 28 Radar Station thought of the bizarre group paddling along through the only remaining wartime shipping channel can only be guessed at.

## 10. Insulation Threads used to power the Island

**Visual Sighting: tree lined with insulation cups (marker on the left hand side)**

Look closely at the trees and you can see where insulation coils have been positioned. These allowed both telephone and electric cables to thread between the generator located at the Base Camp and the various pieces of electrical equipment distributed across the island. Storms were a constant issue for the personnel of No. 28 Radar Station. They blew down insulator trees and created power failures. On 6<sup>th</sup> September 1944 a fierce gale shook the island. By the time it passed, half a mile of telephone line had been blown down and the power supply had shorted. Two mechanics were sent to locate the cause. After hiking half a mile up the steep slope in the middle of the night (carting a particularly heavy ladder) they discovered the cause of the short was an electrocuted Flying Fox entangled between the 'hot' and 'neutral' cables.

## 11. The Old Lighthouse

**Visual Sighting: various concrete bases and random remnants (marker on the right hand side)**

In 1929 a small automatic Swedish gas light had been established on Little Fitzroy Island, but it proved too weak for wartime shipping. By 1943 a larger, stronger light was constructed on Fitzroy Island; the concrete foundations from the various structures are all that remains today. The light was housed in a fibro and wooden building with the light itself resting on a concrete base not far off the ground. It was powered through a 19/064 triple braided hard-drawn wire attached to a 240-volt electric supply back at Base Camp. The new light had a visibility arc over 40° and 1½ million candlepower strength. The strength of the beam (combined with its position approximately 400 feet above sea level) allowed the light to be seen at a distance of 30 miles, giving a ship two hours to correct its path as necessary. The new Lighthouse was manned by an Officer and two Naval Ratings and became fully operational at 21:00 hours on 14th August 1943.

It was quickly discovered that the rotating oscillating lens panels had created a distinctive – and completely accidental – characteristic of blinking Morse code to passing ships. By pure chance a ship travelling too far north of the safe passage would see one long flash followed by two short flashes: Morse code for "D" (go down). A vessel too far south of the channel saw two short flashes followed by a long flash: Morse code "U" (go up). Any craft positioned perfectly in the channel merely saw four even flashes every 16 seconds.

In 1947 responsibility for the light was transferred to the Lightkeepers. Improvements had already been made to the conditions around the light, and the Lightkeepers continued to build on the RAN's expansions. Over the years the light went from a simple affair to having its own power source, with two independent generators housed inside a small engine shed, fuel and water tanks, and a garage. An alarm system was linked to the Lightkeepers' homes to alert the men whenever a fault developed during the night. A small lighthouse beacon was erected on Little Fitzroy Island to further enhance the light's capabilities.

## 12. Building a Road

**Visual Sighting: the road (marker on the right hand side)**

Today's road is the result of years of improvements made to the initial dirt tracks created by the men of No. 28 Radar Station. The uneven tracks wreaked havoc on the island's vehicles both during the Armed Forces' occupation and during the Lightkeeper years. The Lighthouse jeep underwent weekly maintenance to repair the destroyed steering column, burst tyres and blown motors. Occasionally the damage was too difficult for the Lightkeepers to restore and a mechanic was shipped across from the mainland.

One morning Head Lightkeeper Daniels was returning from shutting down the light when the brakes failed at a most inopportune moment – just as he was negotiating the steepest part of the Lighthouse track. The vehicle overturned and Daniels was thrown out. A doctor was brought out to treat his injuries. A few weeks later his bad luck continued when the alarm sounded at midnight. After locating and fixing the problem, Daniels was stumbling back down the path when he slipped on some roadside rocks and cut a deep gash into the sole of his foot. It took a day to stop the staunch blood flow and five days of rest before he could return to active duty. By the end of 1954 the decision was made to concrete the road. The Lightkeepers immediately began clearing trees and levelling the track. Concreting began in earnest in early 1955 following a second incident where the jeep overturned. Work was temporarily put on hold after Daniels' wife passed but resumed soon after and was completed within months.

### 13. Former Horse Paddock

**Visual Sighting: random star pickets scattered throughout scrubland (marker on the right hand side)**

Today there is a strict law forbidding pets from visiting Fitzroy Island; they are not even allowed to walk on the beach. Though Fitzroy Island was designated National Park in the 1950's, the land leased to the Lightkeepers was outside it; a technicality that allowed the Keepers to have pets. One of the Lightkeeping families reportedly converted the area in front of you into a horse paddock. Looking closely, you can see some old fence markers and a small oasis where a minute spring upwells. A stone wall had been built around the spring by the military to give the men working at the RDF Station a small weir, allowing easy water collection. Years later it proved a convenient drinking trough for the horses. The Johnston family also kept guinea pigs. One day the children were attending lessons when one happened to glance out the window in time to see a 6m Scrub Python (its body as thick as an arm) inside their guinea pig cage. Its mouth was wrapped around the closest animal as the others huddled in the corner and quaked. The guinea pig was quickly rescued and the offending snake driven off via a serious tail shaking. For the rest of its life the unfortunate guinea pig had an elongated body like that of a sausage dog. As events transpired, it was the only guinea pig to survive the episode. The others all died of fright. Not every encounter with a wild animal left an unpleasant memory. The Johnston's also stumbled across a stubbled, abandoned baby cockatoo while on the island. It never grew feathers but came to be a beloved family pet called George. George recognised his own name. If he ever heard a familiar "*Hey George*" on the breeze he would propel himself forward and teeter determinedly down the steep Lighthouse road with a responding "*hello hello hello*" to meet his family part-way. When Governor Ramsay's wife met George she was so taken with him that she knitted him his very own jumper.

The island's last Head Lightkeeper was J. Edington, whose family had pet dogs. Their dog Panda suffered terribly from fright during storms. After a Resort was constructed in the 1980's Panda became an island legend. She was frequently discovered hiding beneath the manager's caravan or swimming around the pool where she sought comfort during storms. The Edington's often received phone calls to collect their soggy pet when the thunder rolled overhead.

### 14. Remnants of a Storage Shed

**Visual Sighting: concrete base (marker on the right hand side)**

The Lightkeepers had a standing order with a barge to bring fresh supplies. Between two and nine hours were devoted to unloading the delivery, carting the various materials to their designated locations and reloading the empty containers back onto the barge. Some provisions went into the storage sheds positioned near the beach. Others were allocated nearer to the Lighthouse, and some necessities were directed to this storage shed built alongside the new cottages in 1960.

### 15. Former Night Watch Hut

**Visual Sighting: old track leading to former Night Watch Hut position (marker on the right hand side)**

The men of No. 28 Radar Station had to man their stations 24 hours a day. Those working in the Indicator Loop Hut could stumble back to their rooms quite easily, but those coming from the Doover had to traverse the uneven, narrow track back to Base at the foot of the hill. The steep track was dangerous enough during the day; at night it was almost impossible. It was especially perilous for the RAN personnel manning the WSS. They were not always able to make it back to their sleeping quarters at the end of their shift; especially during inclement weather. A small shack was erected near the Doover to allow exhausted men to sleep nearby and reduce the number of unnecessary injuries. A photo of the night watch hut is one of only two images known to exist of No. 28 Radar Station. During the era of the Lightkeepers, the clearing was used as a medical emergency helicopter pad. *Fitzroy Island Resort does not endorse visitors leaving the structured path to look for the location of the former Night Watch Station.*

## 16. The Radar Station

**Visual Sighting: portions of a defensive stone wall and random metal fragments of radar scattered throughout scrub (marker on the right hand side)**

The stone wall, remnants of which are visible here, was a defensive structure common around Radar Stations. The idea was that the small walls would hamper the forward momentum of advancing enemy troops in the unlikely event of the area being stormed. The small delay could theoretically give the men inside time to destroy the specialist equipment, and some RDF Stations had bombs built into the structure for this very purpose. A few remnants of the burnt-out RDF are scattered throughout this patch of scrubland. An RDF is a device designed to trace the direction of a radio signal back to its source. It can locate an unknown enemy transmitter by comparing the signal using two or more measurements of known transmitters (or two or more signals from known locations). By 1939 the British had created an improved system that could accurately locate a signal within seconds. It was a game changer. Over the course of the war Australian scientists redesigned radar sets to permit rapid assembly/dismantling in the field as well as the capacity to withstand extreme humidity. They created a special light weight radar (LW) Radar unit which could be assembled in the field within a few hours. The Australian LW unit on Fitzroy Island functioned at 200MCS.

The Doover underwent regular maintenance and was extensively camouflaged. The excessive humidity of the tropics created a phenomenon known as tropicalisation that degraded sets prematurely and could effectively knock a radar out of action. This was experienced several times by the team on Fitzroy, and resulted in serious operational delays. On more than one occasion hundreds of passing boats and planes had to be manually plotted over the course of a day while the equipment underwent repairs. *Fitzroy Island Resort does not endorse visitors leaving the structured path to look for the scattered metal remains of the Radar Station.*

## 17. The Lighthouse

**Visual Sighting: Lighthouse (marker on the right hand side)**

The original lighthouse was shut down in 1973 after this one was established. The new light was weaker, and proved less effective; it is not known why those in charge decided to go with a weaker beam. Perhaps they had started to rely more on boats using advanced technology to guide themselves. Whatever the reason, the light remained an essential source of guidance. The Lightkeepers often received telephone calls reporting that the light had failed when in fact it was operating perfectly; its beam was just too weak to penetrate certain weather. Several attempts were made to strengthen it including installing solar panels to the roof. These were destroyed when Cyclone Joy swept across the region in 1990. The damage to the light and surrounding compound sped up the Government's decision to close the station in favour of a small automated light on Little Fitzroy Island. This became functional in 1992, marking the end of the Lightkeepers' era on the island.

## 18. Rastus' Grave

**Visual Sighting: view over the Grafton Passage from Lighthouse (marker facing towards the Grafton Passage)**

Selected members of the RAN remained behind after the war to continue to service the light. Control was finally transferred to the Department of Transport and Shipping in 1947 followed immediately by the appearance of the first Head Lightkeeper, M.V. Rooke. Rooke brought his trusted dog Rastus with him. When Rastus passed in 1949 Rooke built his beloved pet a beautiful grave complete with tombstone. Rooke selected his location before anything else was here – there were no houses or structures in the vicinity, it was just scrubland. It was complete chance that the selected site was so close to where the new lighthouse and compound would be constructed more than a decade later. Rooke was not alone for long; his wedding in 1950 became the first known wedding hosted on Fitzroy Island. The newlyweds honeymooned in Port Douglas for a week before returning to duties. *Fitzroy Island Resort does not endorse visitors leaving the structured path to search for Rastus' Grave. There is no clear path to the grave site. There is physical risk and danger in searching for it. The original collapsed gravesite nearby is an additional hazard.*



## 19. Wireless Signal Station

### **Visual Sighting: view over the Grafton Passage from Lighthouse (marker facing towards the Grafton Passage)**

The idea of establishing a WSS on Fitzroy Island was first raised in the opening months of 1942. At the time the suggestion was put on hold in favour of a RDF Station with the use of a W/T. In theory the island's personnel could use the W/T to radio through vital information to the Cairns Fighter Sector. But the system was deeply flawed: every W/T set in the region was tuned to the same frequency. If another Station was broadcasting, the team on Fitzroy had to wait until the channel was clear. This could cause delays of up to two and half hours. Should the wireless connection between Fitzroy Island and Cairns fail (as happened on occasion) then the island's transmissions were redirected to the No. 27 Radar Station on Dunk Island. The issues did not end there. Once the information reached Cairns it had to be decoded by the Cairns Fighter Sector office (located in Trinity Beach) before finally reaching the Naval Officer in Charge. This slowed the exchange of information and doubled the chance of human error, especially as the personnel in Cairns had a reputation for making mistakes.

By 1944 the focus of No. 28 Radar Station had shifted from defence to guidance. The Axis threat to Allied shipping had passed and the Unit was increasingly relied on to assist returning Allied Airmen who had become disorientated. Adding a WSS to the island allowed the Ratings to communicate with the pilots easily and without delay. Members of the RAN selected a building site near the RDF and the new WSS was completed in February 1944. The surrounding defensive stone wall was built as a theoretical means to delay advancing enemy troops. This wall and the concrete base of the hut are all that remain today. The men were additionally given a signal lamp to further aid their communication capabilities. Owing to the advances made in the Pacific Theatre by the end of 1944, the need for the WSS quickly passed. As result the WSS ceased operation at 23:59 on 31<sup>st</sup> December 1944, after just ten months of service. Its operators were trained to replace those managing the Lighthouse. *Fitzroy Island Resort does not endorse visitors leaving the structured path to search for the WSS remnants – they are minimal. This is off the National Park track and has no path. Leaving the structured path is dangerous. Any injuries sustained from ignoring this advice are: a) the responsibility of the individual involved and b) taken in the knowledge of the added risk involved, as it is impossible to provide first aid in this location.*

## 20. The Lightkeepers' Cottages

### **Visual Sighting: the former Lightkeeper Compound (marker on the right hand side)**

After the war the majority of the military buildings were sold to Yarrabah Mission on the condition that they be removed from the island; the few that remained were for the express use of the Lightkeepers. They included a pump house connected to two water tanks, the ablutions and laundry room, a recreational room and a solitary building. The last two were converted into two one-bedroom cottages for the Lightkeepers and their families to live in. Conditions were cramped, so in 1956 the decision was made to build two new homes. At that point both of the Lightkeepers had families of five and the Head Lightkeeper had another child on the way. Despite the urgency the project was only completed in January 1960.

The new three-bedroom cottages were luxurious by comparison. The original plans (based on Thursday Island's Lightkeeper homes) were expanded to include a pantry, a servery between the kitchen and dining room and extra storage space, including a spot to store fuel. The new homes were also given electric lighting, hot and cold water services, a septic tank, water storage tanks, clothes lines and the added luxury of linoleum. The complex created around the two homes was greater still with a new store room, work shop, office, garage and two fowl houses (allowing the families to house their birds separately). A box room was built specifically for holding the Lightkeepers' personal effects when they were on holiday, as their temporary replacements would move into their homes in the meantime. The fence was constructed around the compound to keep the island's feral goats away from the Lightkeepers' vegetable patches and gardens. A generator room was added later to complete the ensemble.

At the time of construction, the island's light was still located near the Summit. An underground cable was established linking the light to the new cottages to signal the alarm whenever the light faulted. The Lightkeepers took it in turns to answer the alarm should it sound overnight. The majority of the time the fault could be found and rectified with relative ease but on more than one occasion the Lightkeepers were forced to mount an all-night watch on the beam until a mechanic could be brought out to fix the issue.

## **21. Former Dam**

**Visual Sighting: old pump shed within revegetation area (marker on the right hand side)**

Once the Lightkeepers had relocated to the new complex it was too inconvenient to keep using the military dam to collect water. A quick scout of the area turned up another freshwater spring closer to the centre of operations. A pump shed (still visible today) was erected and a dam was quickly established in the small gully below. After the Lighthouse closed in 1992 this land automatically reverted to National Park. QPWR were swift to establish the gully as a revegetation area in the hope of returning it to its native state.

## **22. The Japanese Submarine, 8<sup>th</sup> – 17<sup>th</sup> May 1943**

**Visual Sighting: view over the Grafton Passage (marker on the right hand side)**

No. 28 Radar Station discovered a Japanese Submarine lurking in the Grafton Passage on 8<sup>th</sup> May 1943. The Unit monitored the craft for several days as it avoided several attempts by the RAN to destroy it with depth charges. The skipper of A/S *Fairmile MS 426* spotted the craft on the surface recharging its batteries between the south-eastern point of Cape Grafton and Fitzroy, moving south-east at an estimated speed of 18 – 25 knots. The craft disappeared behind the island but was briefly seen again to the south. The sighting confirmed the Unit's suspicions that they had discovered a Japanese I-Class Submarine. The I-Class was built up to 400 feet long and capable of achieving speeds of up to 24 knots on the surface. In addition to its arsenal of torpedoes, some I-Class submarines carried 42 mines while others held either reconnaissance aircraft or midget submarines.

Its presence highlighted the fact that Japan was aware of the role played by Cairns in moving reinforcements to the front. All ships were ordered to keep clear of the area until further notice. A/S warships descended on the Grafton Passage determined to find and destroy the vessel as it skilfully evaded them time and again. After several days it became clear that the craft was not in the region to lay mines or attack shipping. Its refusal to retreat following its discovery suggested that it had a specific mission to complete. Several theories were proposed including that it may have been taking weather soundings or making observations of Cairns' harbour defence and patrol systems. It was also speculated that the submarine may have been dropping or collecting agents after the RDF detected it suspiciously motionless at the surface for a period. The Cairns region was notorious for leaking secret military information throughout the war, but despite several investigations, very few spies were uncovered.

In the early hours of 17th May the island's Wireless Transmitter was suddenly jammed so that it was impossible to communicate with its mainland counterparts. At first it appeared that the submarine was merely testing the system to see what alternative frequency the W/T would use after the main channel was blocked. As time ticked slowly by a new suspicion arose: the IJN could be trying to determine whether No. 28 Radar Station was using the advanced 271 type radar set. This technology was vastly superior to the Japanese equivalent and some Japanese officers had credited it with being the highest level of air defence in the world. It was supposed that the IJN was attempting to capture a working 271 type radar. Tension filled the air as the servicemen braced themselves for a possible raid. The team was particularly vulnerable owing to the IJN's intimate knowledge of the island that had come from their 1938 reconnaissance. Fortunately for the men, the 271 type radar was not the unit in use on Fitzroy. The island's personnel continued to plot the submarine's movements diligently until the jamming suddenly ended and the submarine slipped quietly away into the darkness. (See also #28.)

### 23. Investigating a Second Beach for Landing Materials

#### **Visual Sighting: steep hill leading to Lighthouse Road (marker on the right hand side)**

By 1946 the RAN agents left behind to run the light had tired of the old, time-consuming method of landing their supplies (see also #29). They began to consider an alternative landing that would allow a vessel to pull right up to the beach to load and unload supplies. The RAN proposed creating a new road departing from the Lighthouse track near your current location and threading downhill to a small strip of beach to the north-east of White Rock. A surveyor, J.E.G. Stevenson, came out to examine the location but found the 'beach' was too narrow to penetrate far enough to land supplies. Stevenson also realised that it would be next to impossible to clear a workable road down the side of the hill in the exact line the RAN proposed. He suggested a potential alternative path but noted that it "*will be obstructed by some granite boulders which will have to be shot apart*". In the end the military decided that it was easier to keep using the system in place, despite its many drawbacks.

### 24. A Kaleidoscope of Road Repairs

#### **Visual Sighting: several obviously altered patches of concreting along road (marker on the right hand side)**

In 1946 the decision was made to ease some of the strain on the power supply by installing a small power generator at the RAN's Lighthouse. Store sheds and fuel tanks were constructed nearby and a space was cleared to allow vehicle access. However one issue persisted: the track was a shambles after four years of use. It was poorly graded, bombarded with black dust, had one steep turn of 300° and nearly 200m of the track was exposed along a steep elbow. Three quarters of the road was subject to heavy scour and half the track was scarred with deep ridges, some between 12 and 15 inches deep. It was decided that the track linking the enhanced Lighthouse facilities to the Campsite had to be improved before a vehicle could be brought to the island. In addition to re-grading the path, the decision was made to physically relocate an eighth of the track so as to avoid the worst of the dusty pinch, and to widen it so that the jeep could travel right up to the light, easing the burden of carting everything by hand. These were the first road works to be performed on Fitzroy Island since the first tracks were cut.

This rickety track endured for nearly a decade, bogging the Lightkeepers' jeep in the wet season and shaking its steering column into oblivion during the dry. The first concrete road was laid in 1955; the Lightkeepers hauled bags of coral up the steep path to mix with the concrete and pour the initial foundations. To save time they did not bother to remove large rocks but merely poured their concrete straight over the top. This meant that in the following years some parts of the road degraded before others. For the next forty years various Lightkeepers were tasked with repairing the road damage. In the early days they continued to haul coral and sand to the top of the track for mixing. As the years passed the coral was gradually replaced with stones, and most recently, simply sand. As you walk down the road you can see the various repair jobs undertaken by the 59 Lightkeepers that tended the road after the initial foundation was laid. You can see portions where they deviated from the previous path or used different ingredients in their concrete. Some had their children and pets leave footprints or scratch initials in the concoction to leave a permanent reminder of their time on the island.

### 25. The Issues with Electrifying an Island

#### **Visual Sighting: tree with protruding metal fragments (marker on the right hand side). *Since this was marked the larger tree over the road collapsed and snapped this tree during its fall. The remnants of both are over the bank; you can no longer see the metal fragments***

9000 yards of triple braided hard-drawn wire was intertwined between the trees ("*higgledy piggledy*" as one man expressed it) to power the military's various pieces of electrical equipment. The trees were often blown over in strong winds creating electrical shorts and on occasion igniting fires. By the time No. 28 Radar Station was disbanded most of the island's wire had been destroyed by bushfire, as had the Radar Station itself. In subsequent years more of the trees that were utilised as insulation poles have been destroyed and several of

those that remain have lost the white insulation cups. Despite this, sharp eyes can still detect the tell-tale signs of human habitation.

## **26. Insulation Threads and Coils: The Ever Present Threat of Electrocution**

**Visual Sighting: fallen tree with insulation cups on side- starting to slip over cliff (marker on the right hand side)**

Storms were a major issue for Radar Stations operating in the tropics: they interfered with the equipment, created shorts in the electrical wiring and brought the threat of electrocution. No. 28 Radar Station was not immune. Two men were electrocuted within the first six months of operation. L/A J. W. Hillier was sent from Townsville to re-calibrate the radar. He was working in the RDF hut during a thunderstorm alongside an unknown member of the radar station. L/A J. W. Hillier was on the phone reporting to the station's Commanding Officer, F/O Thomas (at Base Camp) as the unnamed Unit member radioed the Cairns Fighter Sector. Suddenly the structure they were sheltering inside released a flow of water that permeated the battery and sent a blue electrical arc into both men. It exploded with a deafening roar, flinging the pair nine feet into the air. F/O Thomas believed they had been killed and hung up the phone with a *"Well they're gone. That's the end of those two"*. As the shocked team absorbed the news two smouldering figures suddenly appeared in the distance staggering down the hill – extremely sore, but alive. It was more than could be said for the equipment. The incident blew the main power generator located at the Base Camp and seared every power line so that nothing electrical worked on the island for several days afterwards.

## **27. Abandoned Storage Shed and Drum Stand**

**Visual Sighting: concrete base and former diesel fuel stand (marker on the right hand side)**

A launch arrived from Cairns three times a week bringing fresh food supplies and other equipment to the men of No. 28 Radar Station. It took an average of two and a half hours to make the passage (longer in rough conditions). By the time the launch arrived, the food had often been spoilt by salt water contamination. Despite the unreliable quality of the food, the servicemen kept limited provisions on the island and relied on their regular supply run. This changed after the introduction of the Lightkeepers: it could be weeks between visits from supply barges, so large quantities of fuel, food and other articles were held in numerous positions around the island. The Lightkeepers kept several store sheds near the landing beach to hold the bulk of the supplies, and they set up a simple stand to hold the fuel drums. After the first hotel was introduced on Fitzroy Island, the Edingtons would often find tourists waiting in vain beside this shed for a bus to carry them up the hill. They were not always impressed to discover that no such bus existed. For the Lightkeepers, hiking up the hill was a normal part of their day. One Lightkeeper favoured walking backwards as he felt it was easier but Edington's wife was so proficient that she could balance a grandchild on each hip while carrying a handful of towels and washing as she climbed.

## **28. Loop Control Hut**

**Visual Sighting: remains of decrepit shed through trees (marker on the left hand side)**

It is believed the broken-down structure visible in the bush may be the only original building left standing from the days of World War II; all others have vanished over time. This structure is outside the military compound; it does not appear in the original drawings highlighting the numerous buildings within the base, nor does it appear in any of the RAAF maps marking the positions of their integral structures distributed across the island. There is only one building that we know was on the island and yet does not appear in any records. That is of course the Loop Control Hut, the structure that received the information from the Submarine Indicator Loops concealed inside Welcome Bay. It had to be located close the shore but sufficiently concealed to be invisible to enemy vessels. It is hypothesised that these remains may be that structure, stripped of its equipment and left as an empty shell for the Lightkeepers to use as they saw fit.

Typically there were nine pieces of equipment crammed inside a Loop Control Hut. The first was the Balancing Box, a variable resistor connected to the submerged Submarine Indicator Cables. The Balancing Box received the signals and printed the resulting 'sound waves' through a Recorder for RAN Ratings to analyse. The result is similar to that of a seismograph. The Adjusting Box helped to analyse the data while the LISA amplified the signals with the help of an Amplifier and a Loudspeaker. The Integrator fed the original information through to the Amplifier and Recorder, while a small motor drove the Recorder and the Input Transformer Box provided power to the rest of the equipment.

When the Indicator Loops signalled the presence of the Japanese Submarine in 1943 it was up to the RAN to determine whether the signal was genuine. The enemy craft was positively identified with the aid of the RAAF manning the RDF. However, the recordings made of the submarine on 16th and 17th May were at odds to those made between 8th and 15<sup>th</sup> May. An Investigative Team travelled to the island to help locate the craft and concluded that the anomaly gave the impression that a second, larger submarine was operating around the island on 16<sup>th</sup> and 17<sup>th</sup> May. After the submarine slipped away the Lead Investigating Officer, Lt. Benbow, rounded off his detailed report of the incident by stating that it was in fact possible that a second submarine had appeared and been the one to challenge the island's RDF by jamming its transmitter.

## **29. Barge Deliveries**

**Visual Sighting: faint traces of previous path through scrub (marker on the right hand side)**

The topography of the island's fringing reef meant that the military launch was only able to bring supplies to within 200 yards of the shore. The rest of the distance was too shallow for the vessel to navigate successfully. No. 28 Radar Station had a small dinghy and a flat bottomed boat to traverse the remaining gap. Personnel made multiple return trips on their small crafts collecting the provisions, which then had to be transferred to the relevant storage facilities by hand. As the war stretched on the men took advantage of repair work undertaken at their Base Camp to commandeer surplus material and build a timber slipway. This made launching dinghies significantly easier. To the men this was an integral addition to their possessions as they were beginning to depend on fishing for both stimulation and food. It was little wonder they were relying on fresh catch. A report of conditions dated May 1944 found that the Station was being supplied with tins of milk that had expired the previous year. With the return of peace, the slipway was removed along with military structures. A decade later the Lightkeepers found themselves facing the same predicament. They took the first opportunity to add a boat shed and a small boat ramp to the construction work taking place on the island. Fishing was just as vital to those living on the island in the later years – it afforded both entertainment and an alternative food source. Over time several Lightkeepers built up their knowledge of the area's best fishing locations which they would visit at every opportunity.

## **30. No. 28 Radar Station's Base Camp**

**Visual Sighting: Turtle Rehabilitation Centre (marker on the left hand side)**

Members of the Cairns Harbour Board arrived on Fitzroy Island in 1942 to build the first of the station's facilities. They selected the area where the Turtle Rehabilitation Centre stands today. The civilians were withdrawn as the first members of No. 28 Radar Station arrived so that the Unit could concentrate on building their top-secret facilities, chiefly the RDF station and the Loop Indicator Hut. The Unit worked with such diligence to establish their station that seven men were hospitalised within three months. Each languished in hospital between two weeks and a month – some were hospitalised multiple times. Their bad luck did not end there; two of the Unit's members were killed in a plane crash.

For those that made it to the island, maintaining their mental state was just as important as tending their physical health. Over the years the various Commanding Officers had their hands full trying to control their

men. Despite the isolation individuals managed to sneak back into Cairns without permission with audacious regularity. The Commanding Officers encouraged the off-duty servicemen to channel their energy into fishing, badminton, volleyball, football or one of several indoor sports instead. Some men took to making coral necklaces while others created a vegetable garden to supplement their rations. One of the Airmen was a former surf lifesaver from Sydney. He supervised the production of a shark-proof cage around the rocks to allow the men to participate in his favourite pastime: swimming.

By the beginning of 1944 the various structures littering the Base Camp were falling apart as multiple storms took their toll. The Signal Hut required waterproofing and the windows needed repair to avoid a second electrocution event. Both of the Ratings' living quarters were on the verge of collapse. One had been rendered completely uninhabitable after portions of the roof caved in. The second had a splintered crack running the length of the wall. It left the men inside decidedly nervous each time a strong wind swept through. Even the Officers' Sleeping Hut was not immune: the roof was close to giving way and one wall was gradually caving in; the top had blown in some 18 inches, a gap that was slowly increasing with time. The situation worsened when the men staffing the WSS arrived, putting more pressure on the already limited living facilities. Emergency repairs were postponed time and again so that the situation had barely started to improve when the station was closed. The final act of No. 28 Radar Station personnel was to strip all the military equipment from the island. The servicemen were careful to avoid exposing the secret technology to members of the general public. The majority of the Base Camp structures were dismantled and the raw materials stripped from the island. The Lightkeepers moved into the small, un-airconditioned units with their families. They relied on meat safes suspended from the ceiling to prevent ants and other insects from spoiling their food. Wives cooked dinner over a wood-fire oven and grew various fruits and vegetables (which were often pillaged by day trippers coming across on their own vessels). For their children, Fitzroy Island provided an idyllic childhood (although the goannas proved far too friendly on more than one occasion whilst they were using the outside bathroom).

The remaining buildings were slowly removed over the following decades as different sections were opened and closed by the Lightkeepers, Park Rangers and the tourism industry. The island's changing face has reflected the alterations in Fitzroy's role as it gradually evolved over time into the island we see and appreciate today.