

CHAPTER 13 - Waiouru and Biloxi

20th September 1982, Vicki and I posted back to Irirangi. Myself as Station Chief and Vicki as a watchkeeping killick. My ex-wife and youngest son, Mike, had moved from Ohakune to Wellington and my eldest son Tony, had left college and had gone to Wellington to work. Vicki and I were given No2 Park Lane. There was an army Major in No1 who had two huskies and during winter, he would link them up to a sled and race around Thorne Park in the snow. A young Admin Officer Steve ? and his wife Mede would be the next occupants sometime later. No3 was Lt Louisson, the EO, and in No4 was Jeremy Stevenson, the XO. There was an empty lot next to No4 and I turned it into a mini farm - built a chook house, put in chooks (as opposed to sheep) and we dug up a suitable area for sowing vegies. I had had a taste of the good life down at the old Peters's Homestead and thought it would be a good idea to carry on and the other occupants of Park Lane joined in. Everyone took turns to feed the chooks and collect the eggs.

Alan Peck was now CO and Jeff Still was still the SCO. PO sparkers over the next few years included Biggy Hunt, Bob Overton, Wings Kingham, George Randell and Greg Hartley. The memory is slipping a bit here.

17 January 1983, I was promoted to Warrant Officer, given my WO's slides by Lt Cdr Alan Peck, and I became the SCO. My Chief RS posted in and it turned out to be Bob Farrant! Bob was the PO of the watch when I first went to NCC Wellington in 1966. Bob had left the navy, done a carpentry apprenticeship (where have I heard that before), worked as a carpenter, then decided to rejoin the navy. Anyway, Bob and I got on very well over the next few years and he took over from me when I was sent on a couple of temporary postings. Either the SCO or Chief RS were required to be on station at all times and Bob certainly got the rough end of the stick when I went to the US on a course for 4 months, later on.

On assuming the mantle of SCO, I noticed a spare telephone line in the SCO's Office and I asked Rock if a Teleprinter line could be put in. Landlines in NZ were cleared to Restricted so we could accept and send traffic to Navcommsta Waiouru upto that classification. PORF Roger Syme and his wife, Mandy, an ABRP(W) had posted to Irirangi and I asked Mandy if she could type - yes. Once we had the Teleprinter intalled, I taught her to type a naval message and do the logs for incoming and outgoing traffic. Within a couple of weeks, she had mastered the circuit and did the Main Signal Office duties at HMNZS Irirangi.

As I mentioned in Chapter 12, Scouse had retired from the navy but Rock had briefly been posted away during my absence and came back again. He was promoted to WORM. We carried on with the Irirangi shooting team, but on Wednesday afternoons, we invited all ships company to come along as well. We were both qualified as Range Conductors by the Tamaki Gunnery School and had unlimited ammunition from the Army Training Group Ordnance Corps - Dave Ahuriri's father was a sergeant that was in charge of the ranges and him and I got on famously. During one Wednesday afternoon on the pistol range, one of the females, swung round with the pistol in her hand and finger on the trigger said that her pistol had jammed - what should she do? Everyone froze, and I told her to turn around and place the pistol on the table in front of her. This she did and I went up to her and whispered in her shell-like ear not to do that again.

Rock was disappointed that he never qualified for the Queens Medal for Champions - LRM Dave Tonkin had won it the last time that we were in Waiouru. I told Rock that I would run most of the ranges so that he could get in more practice. The team fronted up to Whangaparoa for the annual event. One of the main team events was Beat the Butts. Well, we had practised that much that our team was photographed whilst horizontal in mid-air, cocking rifles, landing on the mound and firing. We won! We had two teams in the pistol shoot and my team won - I did the maths. Whoever had the most ammo left with the most targets hits, would win. I shot one target, another member shot another, and I still had several rounds left - I stopped firing. We won because we had the most rounds remaining - tactics. Rock won the best Rifle, SMG and Pistol and was declared Champion for that year - he got his medal. Vicki won the cup for best female shot.

April 1983 I had to attend the WO's Management Course - Dave Wistrand was also on the course. This lasted about three weeks and was run by a young Instructional Lt who knew nothing about man management. I considered it a complete waste of time. One of my young females was up on charge by the Taihape police for being drunk and disorderly. As in the Canterbury case of the young sparker who was up on a urinating in a public place charge, I fronted up as the defendant's friend. Spoke highly of the girl, told the judge of the impending Consequential Naval Punishment and she got off with a warning. I should have been a lawyer...

By now, the chickens at No5 (the allotment) Park Lane were doing well, although I noticed one missing. There was a hole in the right, back side of the coop with feathers at the entrance - Ferrets! I went into the coop and laid down tight mesh wire all over the ground. This seemed to do the trick and we had no more problems of disappearing chooks.

The last time that we were in Waiouru, there were moves afoot to convert the old Quartermaster's lobby into a Sports and Social Club. This was done by getting an old house and fixing it to the right hand side of the lobby. New showers and toilets were put in, a Chief El (Fonce Low) was posted in as Projects manager to do the electrics and during the week, off watch personnel were involved in making the whole place habitable, cleaning and painting. The Irirangi Sports And Social Club was up and running. As SCO, I had automatically taken over from Jeff as the Treasurer and every Monday morning, I was kept busy doing the accounts as the Club's Bar Manager, POS Bungy Williams, re-stocked the bar. Great times at the Old Camp. Every week, we had Tombola and during the weekends we had social events for all ships company and their families. One Christmas, we took orders for geese. Whilst the kids were enjoying a christmas party at the Club, Rock and I went down south of Taihape to a farm where they were about to cull geese for the year. The farm had a big gully where the geese flew through and hunters from the area gathered to shoot them down. Rock had a Holden Commodore - the boot had often seen venison but never geese. Anyway, a lot of geese were killed, but there were a lot of fat youngsters that hadn't taken off. Rock and I grabbed the requisite number of live geese and went back to the old camp. On arrival, Rock announced to the crowd that we had the geese and who wanted one. Yes! Yes! Rock opened up the boot, grabbed each goose in turn and wrung its neck. The kids thought it was great but the parents were not amused.

It was with great sadness that Mick Kereti became ill with terminal cancer. Mick was always there every Saturday to lay down a hangi and involved with Irirangi sports teams. He was awarded the BEM for all that he had done for Irirangi, but was too ill to attend the ceremony in Wellington. Alan Peck presented him with his medal in his hospital bed at Wanganui Hospital. Mick passed away shortly after receiving the award - a great man. We attended his funeral and I was asked beforehand to speak on behalf of the Navy. I went to see the Maori teacher at Waiouru Primary School for cultural guidance and at the Marae where Mick's body lay in state, I spoke the appropriate words in english as the naval party was welcomed onto the marae - a moving experience and one I will never forget. Taihape Maori had a long association with the Navy at Irirangi.

In 1983, the movie "E.T." came to Taihape and the Majestic Theatre was packed - people were sitting in the aisles and standing up the back. A crowd of us from Irirangi went and Vicki, Bob and I were able to get seats. During one scene where ET was becoming ill, I noticed a tear rolling down Bob's cheek!

I was posted to Wakefield additional to do the Radio Frequency Managers Course (Radio Systems Engineering) at the International Radio Frequency Managers Course, Keesler Air Force Base, Biloxi, Mississippi, USA. The course would start 4 January 1984 but I would need to get there by the end of December 1983. Defence had also posted Flying Officer Doug Currey, RNZAF. I didn't know Doug but at the departure lounge, Auckland International Airport, he was the only one wearing a moustache. We had only been in the air for about an hour when a male flight attendant came up to me and asked me if I would like a drink. It was Peter Soper - a former able signalman from HMNZS Waikato.

Los Angeles airport was overcrowded and in the process of being rebuilt. When we landed at Honolulu, we had to get off with our luggage and pass through customs for entry into the mainland to ease the burden from LA, then get back onto the original ANZ plane. On the final leg, the plane (747) was half empty and Doug and I spread out to have a sleep. Unfortunately, a small girl of about five decided that she was going to sleep next to me and spread out on my right. She was a heavy sleeper but prone to lashing out with her left leg on my right thigh. Little darling...Her mother apologised most profusely but being the gentleman that I was, said not to worry about it - even though my thigh was aching and bruised. I was that tired that I couldn't be bothered shifting to another seat.

We landed at LA, collected our bags and then went to the Hotel near the airport for the night. Nothing spectacular about the area, but we needed to take it easy in order to get up early in the morning for our first flight across the States. It was an Eastern Airlines flight to Texas - the undercarriage went up with great groans and I thought "Shit" will we make it! Landed in Dallas and transferred to a much smaller aircraft for the flight to Mobile, Alabama. Cruised at about 20,000 feet and was amazed at the country below. Flew over the Mississippi River and the barges seemed miniscule. Eventually we landed at Mobile, Alabama and because we were wearing civvies, the Senior NCO from the IRFMS School, who was there to pick us up - missed us. Doug and I waited for 8 hours for a 45 minute connecting flight to Biloxi.

We eventually arrived at Keesler Air Force Base and driven to the Administration area. There, we were told where we were living and when to join the School. The base was bloody huge - six lane highway off to one side and our accommodation was a multi-storey Officers Block at the far end of the base. As a Warrant Officer, I was treated as a commissioned officer in accordance with their system. Our school was some distance away and involved a 45 minute brisk walk. The base was home to 25,000 basic technical trainees and advanced courses. They couldn't handle all the students at once and the courses were held over 24 hour periods. Even though we were billeted at the end of the base, we could hear the engines fired up for the Engineering courses during the night.



Keesler AFB. Home of the C130 Hurricane Hunters. Our school was in the middle and accommodation was way off to the top right. Six lane highway in foreground. Gulf of Mexico also in the foreground. At the rear is part of the estuary where you could use dinghys, canoes and power boats. There was an 18 hole golf course at the bottom and up the left of the runway.

The International Radio Frequency Management School was part of the 81st Training Wing and was accredited as a US University.



Doug and I spent the next few days exploring and getting to know the Base. Directly opposite our accommodation was a bowling alley where you could get breakfast for 99 cents US, consisting of three rashers of bacon, scrambled eggs, two slices of toast and all the coffee you could drink. We went shopping at the Base supermarket - ginormous! We purchased lobsters with big claws for \$US6 each and T-bone steaks that were a couple of inches thick and filled your whole plate. Small boxes of cereal, milk, noodle soups, coffee and bread. We also had to buy plastic cutlery, knives, bowls, cups and glasses.

We were living in Tyer House on the 5th floor (our 4th) at the rear, overlooking trees with grey squirrels and BBQ facilities. Doug and I had a large apartment which had a big lounge, small kitchenette with frig/freezer, hot water jug, toaster and a microwave, a bathroom with shower and seperate toilet. Our bedrooms had a single bed, built-in wardrobe, set of drawers, desk, chair and a reading light.



There was a telephone in the corridor of each floor and Vicki used to ring regularly about 2000 in the evenings - our toll bill was about \$1000.

Class would start at 0730 and Doug and I would have cereal, toast and coffee for breakfast. There would be an hour for lunch and class would finish at 1530. This was an intensive course requiring a lot of self study. Classwork and homework Monday to Thursday totalled 14 hours per day. Our evening meal would be noodle soup. Friday night we would go to the Officers Mess for a seafood buffet - all you could eat for \$US10. I had never seen such a large assortment of seafood. To finish off, we would go to the small bar at the front of the Mess where there was an oyster shucker opening fresh oysters - \$US2.50 a dozen. Big fat, juicy, succulent Gulf of Mexico oysters. We would get a jug of beer and watch movies whilst scoffing the oysters.

Saturdays, we would have a BBQ, basting those huge T-Bones whilst having a beer. There was a US Army Major, Ed Koharik, on course and also living in Tyer House. He would invariably come with us to the Mess and join in with the BBQ. He owned a rather large twin cab Ute and would take us around Biloxi. We would buy the petrol - 50 US cents a gallon! We had a long weekend during the course and Ed took us to New Orleans on the Saturday and we had lunch in a Bourbon Street restaurant. Sunday, he took us to see his relatives in Florida and on the way, we stopped at the Battleship Memorial Park in Mobile, Alabama, to go over the USS Alabama and the submarine USS Drum. Even though the speed limit was 50mph (80kph), it didn't take long to travel between States.

Sundays were spent studying in preparation for the following week. Exams were programmed in on specific dates but you could be hit with a test at any time. On the day of an exam, I would get up at 0400 to do some last minute cramming.

There were 18 students that started the course but this was whittled down to 12. If a student failed, an instructor would come up and whisper in his ear - the student would then leave with the instructor and we wouldn't see him again. While we were at smoko or lunch, the student's desk would be cleaned out.

So, what is a Frequency Manager? Frequency management can be split into two categories. The first one is extensive knowledge of local, national and international radio regulations and allocating frequencies as required, either permanently or temporarily, and responding to requests. The second category is a hands on approach, more aptly named as radio systems engineering/management. In this, a frequency manager is responsible for putting together radio communications systems dependant upon the situation. For example - A radio circuit is required between Point A and Point B to cover a distance of 300km and there is a mountain range close to Point B. Would a ground wave signal be suitable or should a short hop skywave be used? The frequency manager would need to know the terrain over which the signal would travel, characteristics of aerials to be used, power outputs and types of emissions.

The first two weeks were spent entirely on mathematics, converting Algebraic formula and brushing up on Geometry and Trigonometry. Although we had programmable, scientific calculators, these were not allowed to be used for the first six weeks. We had to use log tables instead. The logic was that we might be out in the field with no/dead batteries.

We covered a lot of rules and regulations involving US and International laws, sending frequency requests and how to respond to them. The radio system engineering side covered:

- . VHF AM line of sight
- . VHF FM line of sight
- . UHF AM line of sight
- . UHF FM line of sight
- . Tropospheric scatter communications
- . Groundwave propagation
- . HF propagation (covered my favourite topic - MUFs, OWFs and LUFs!) this included working out the Great Circle Path and Azimuths
- . Types of emissions
- . Antenna characteristics for all of the above
- . Siting of antennae
- . Line of sight path profiles

The course also covered medical problems resulting from RF radiation - cancer being one of them - I wasn't surprised at that. The USAF said that it was well known that RF Radiation was a health hazard but that the results were not allowed to be made public. A joint Aus/NZ publication came out in 1998 (AS/NZS 2772) detailing new safe distance requirements and possible health hazards. The RAN publication ABR2924 Chapter 3 Annex B (2009) also refers to possible health hazards from RF radiation. Veterans Affairs NZ will not recognise RF radiation as a medical problem because the US and Australian Veterans Associations won't commit themselves.

During the course, the class was taken to Ingalls Shipyard, Pascagoula, Mississippi, to visit the battleship USS Iowa which was undergoing the final stages of her conversion. When we entered the gates, each class member had to enter their details in the visitors book. Doug and I left the security hut and were called back by one of our instructors. He reminded us that NZ was "Persona Non Grata" because of the ANZUS row and our entries had been twinkled out! Iowa was a massive ship and the full size was not realised until we went below decks - the hull below the waterline showed a ship that was far bigger than seen from outside. The UHF office was off to the side of the wide passageway that ran almost the length of the ship. This passageway had an overhead gantry that could transfer 16 inch shells from one end of the ship to the other - not like the movie "Battleship" that showed several people hoisting a shell on their shoulders! Anyway, the UHF office had the new WSC-3 UHF transceivers installed. Another feature was the siting of the new Radio Central. Having seen the original tiny office on USS Alabama, several decks down, the new office was on 1 Deck, Forward, Port Side. It used to be the Officers Heads and there was still a urinal pipe in there that hadn't been removed! A huge Monopole aerial sat on the Focle. Battleships never fired fore and aft - only broadside, so there was no danger of the aerial being blown away.

The Anzus row was really a non-event. We still took part in intelligence gathering, communications links, receiving cryptographic keying material and sending personnel to the US for courses and other things. The same thing happened when the French blew up the Rainbow Warrior - we had a communications circuit with the French Navy in Noumea every three months and after the bombing, nothing happened - we still continued with what we had been doing. Watch the movie "The Mouse that Roared" starring Peter Sellers. About a small country taking on a major power. As far as the NZ public were aware, we had told two major powers where to get off.



USS Iowa firing a broadside in July 1984. Interestingly, the guns never fired simultaneously but a few seconds apart otherwise the ship would suffer severe damage. They had to bring back retired Seaman Gunners to show the rookies how to load and fire the guns on the converted battleships. The ship also carried a Sea Knight helo which was stowed on the starboard side, forrard of X Turret. It took 20 minutes to close the ship up for Action Stations.

The final exam took all day and covered the full syllabus. The remaining 12 of us all passed and we were issued US Diplomas in Radio Frequency Management. I didn't know the final result until after I got home. The course finished at the beginning of the third week in April 1984. Doug and I flew to LA via Atlanta where our plane broke down and we had to wait 8 hours. Huge airport - six concourses that took 90 aircraft each! Vicki met me in LA as we were going to have a holiday in the States.

There had been a change of command during my absence with Lt Cdr Ross Sanson taking over from Alan Peck. Shortly after we arrived back from the US, Ross came to see me and said that my exam results had arrived and that the Navy was pleased with my efforts. Would I consider being commissioned and if yes, I would be sent back to Keesler AFB to do an 18 months course on telecommunications, satellite systems and other communication sub-systems. Vicki would be allowed to accompany me and we would be given married quarters. I politely declined for personal reasons.

The Army School of Signals conducted an exercise one winter and asked if we would like to participate. It was a morse exercise for Corporals and below and the army were going to put four stations in the field - one up in the Kaimanawas, Hawkes Bay, Wanganui and Taranaki. Our station would be at Helwan Camp just north of Waiuouru. I agreed and put a female team in under Vicki's supervision. There was a lot of snow on the ground and the team were billeted in a small hut that had two bunks and a large oven. The exercise was to last for five days. We were given a PRC47 and I put up an inverted Vee aerial which would provide coverage to the other stations. It was cold inside the hut so the girls used the electric oven for heating as well as cooking. They were provided with fresh victuals every day. They did very well during the exercise and left the army operators for dead.



Back Row: L-R Jo Gourdie, Vicky Reti, Vicki Dell, Diane Strang
Front Row: L-R Jane Forbes, Robyn Tauroa

In 1984, I carried out research to determine a better transmit aerial system for shore to ship. Until then, the broadcast aerials were omnidirectional unterminated vees, joined together to form a square and were incorrectly termed quadrants. One so-called quadrant of two vees transmitted on 4 and 12 MHz and a second quadrant transmitted on 8 and 16MHz with two additional quadrants for the other broadcast. There used to be an old saying at sea that if you could hear ZLO on the broadcast frequencies then you should have been able to transmit into ZLO on the same bands. This was incorrect, especially if you were a few thousand kilometres away. Ships' whip aerials had lower take-off angles compared to the "quadrants", causing frustration to generations of ships' operators who used to wonder why ZLO couldn't hear them.

It was decided that new aerials would be erected when the new transmitter building was completed. The two sets of broadcast aerials were redesigned to have similar characteristics to ships whips. Vertical wire antennae, cut to a quarter wavelength were suspended and insulated from a horizontal catenary slung between two towers. Each wire antenna had its own counterpoise – the original earth mat that had been laid down 30 years earlier had been completely eroded by the volcanic soil, leaving only a green tinge showing where the original copper had once been. The volcanic soil also had a detrimental effect on those working in the Transmitter Hall. The building was no longer properly earthed and resulted in RF being radiated inside the hall which may have caused some personnel to suffer from terminal cancers.

A separate type of antenna had to be erected to cater for an HF voice circuit. The monopoles were satisfactory for north/south paths and out to sea in east/west directions which meant that ships in harbour on the east and west coasts of the North Island were unable to hear ZLO. To overcome this, a halfwave dipole using two wires for 3 and 8 MHz was erected 10 meters above ground and oriented 10 degrees off north/south, giving good omnidirectional reception onboard ships.

I also checked that the Transmit and Receive rhombic antennae for the Fixed Services were orientated correctly. Wilbur Luscombe had done an excellent job many years ago aligning the aerials using a lodestone but I wanted to see how accurate my course notes had been. Waiouru had a magnetic variation of about 21 degrees East and using "East is Least and West is best" you had to subtract 21 degrees from the True Bearing, which I had worked out using the Great Circle Path and Azimuth formulae. All the rhombics were correctly orientated.

I went back three years after I had retired and saw that the new Broadcast antennae were up and running.

In 1986 I would be involved in setting up communications for a major exercise.

Tony Vickers was relieved by Murray Kinred who was relieved by John Dodd. Ross Sanson was relieved by Richard Jackson in December 1985.

We were posted back to Auckland, April 1986. I went to the Comms School as Comms Training Officer and Vicki to the Naval Radio Station, North Head. Some people hated Waiouru and some loved it. We had both loved our time there and were sad to leave. Irirangi was definitely one of the highlights in my naval career.