



# The Cape Brett Lighthouse and Settlement

Historic Heritage Assessment

Bay of Islands Area Office

Melina Goddard and Christen McAlpine 2011



Cape Brett Lighthouse and Settlement: Historic Heritage Assessment

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Cover image: image 1: Bill Creamer, Henry Harvey and Albert Pearce at Cape Brett, 1914. Image 2: The first assistant keepers house today (D. Heller 2010). Image 3: View from the settlement looking towards Piercy Island (K. Upperton)

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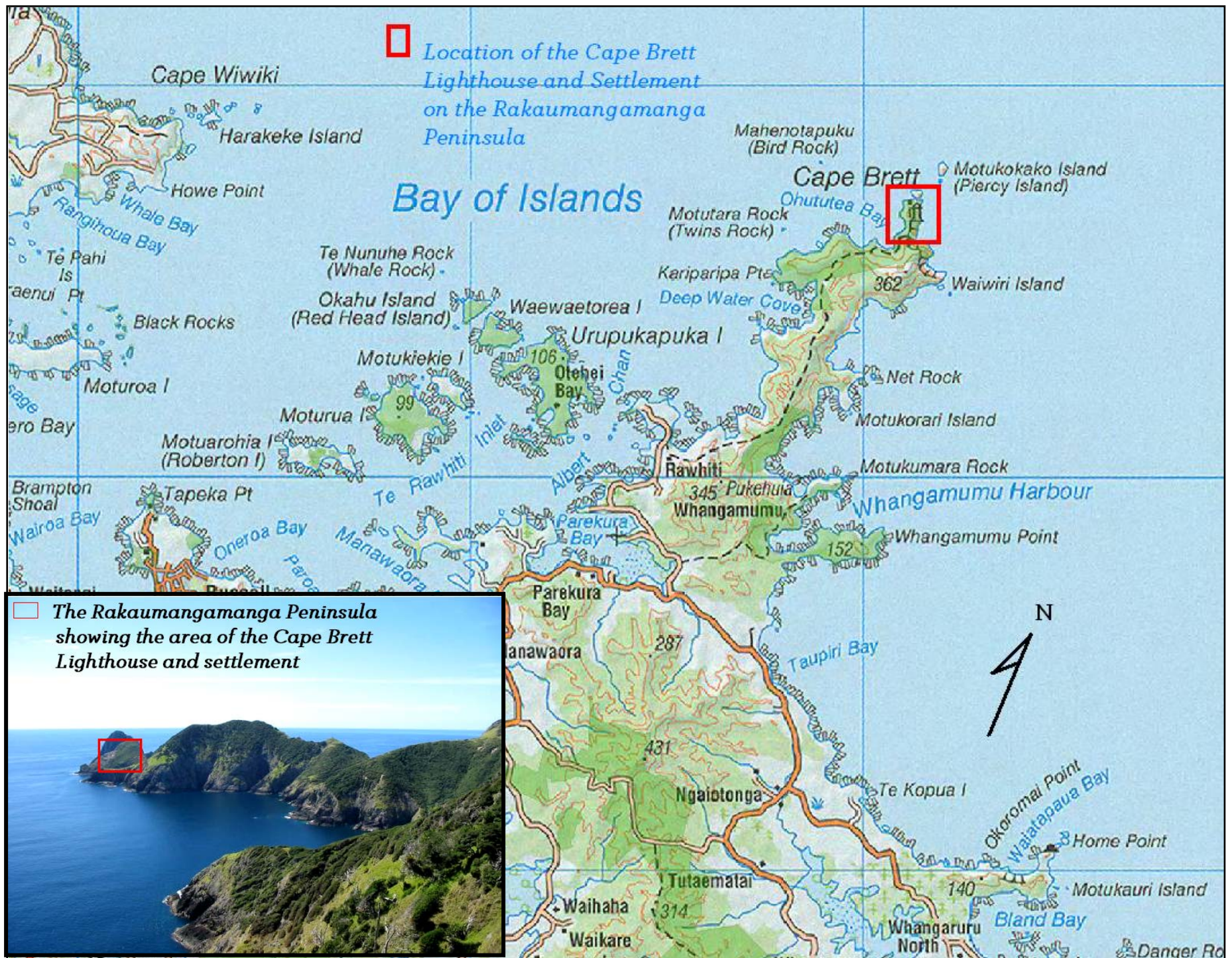


Figure 1: Location of the Cape Brett Lighthouse on the Rakaumangamanga Peninsula, Bay of Islands

## Site Overview

The Cape Brett Lighthouse is located on the northernmost tip of Rakaumangamanga Peninsula in the Bay of Islands (fig 1). The lighthouse and settlement has a rich and well documented human history. The main physical remains are the lighthouse and the first assistant keeper's house. The light was first lit on the evening of the 21<sup>st</sup> of February 1910 and kept watch on the coast until 5<sup>th</sup> October 1978. The Cape Brett Lighthouse was the first in New Zealand to use a mercury bath for its rotational device and it is unique in New Zealand as the only lighthouse to have survived in place with its original equipment substantially intact. The lighthouse and settlement is highly significant to the descendants of the people who lived and worked there. The peninsula holds great spiritual and cultural significance for local iwi.

Land status: *Recreation Reserve*

Administered by: *Department of Conservation Bay of Islands area office*

Access by: *Boat to Deep Water Cove or Cape Brett Track, Oke Bay, Rawhiti.*

Visitor numbers: *To the hut: 1<sup>st</sup> June 2011-31<sup>st</sup> May 2012= 2.212*

Heritage status: *Category 1 Historic Place, protected under the Historic Places Act 1993, the Conservation Act 1987 and the Reserves Act 1977.*

Site area: *The settlement and lighthouse is located within the Cape Brett Peninsula reserve which runs from the landing to Deep Cove Water. From the lighthouse to the landing it is approximately 230, 646 square metres.*

Functional location number: *DN-61-200-1067*

## History Description

The peninsula has a long human history from prehistoric Maori, through decades as a functioning lighthouse settlement to the present when numerous visitors who tramp the Cape Brett track stay in the first assistant keeper's former home. The Maori prehistory is represented by terraces, pits and pa sites and oral traditions which make Cape Brett and the Rakaumangamanga Peninsula of particular spiritual and traditional importance to local iwi. The early explorer Captain Cook visited the Bay of Islands in 1769. He named the Rakaumangamanga Peninsula Cape Brett, after Rear-Admiral Sir Piercy Brett and he also named Motukokako Island (hole in the rock), Piercy Island both after the admiral as a play on words.

After initial European contact the Bay began to be frequented by whalers, traders and missionary settlers, and in 1874 the first discussion took place in Russell for the need of a lighthouse at Cape Brett. This was in a public meeting hosted by J.R. Williams, its purpose to relay the recent proceedings of parliament. During this meeting the floor was opened to questions and one gentleman enquired as to a lighthouse at Cape Brett- Mr. Williams replied that:

*'He would be very glad to see a lighthouse on the Cape, but did not think it would be granted by the government.'*<sup>1</sup>

The Nautical Advisor proposed a light in this location in 1886 but it was passed over in favour of other lights. Thirty-three years later the idea was again mooted by the Marine Engineer to the Secretary of the Marine Department in a 1907 report.<sup>2</sup>

*'The North Cape, or Cape Brett on the Southern side of the Bay of Islands appears to be the best place where a light is most urgently required as there is now no light between Cape Maria Van Diemen and Moko Hina'.*<sup>3</sup>

In December 1907 the Cape Brett peninsula was chosen as the most advantageous location for a light for shipping purposes.<sup>4</sup> Orders were soon put in for the necessary building materials and lighthouse parts, most of which came from England.<sup>5</sup>

Keepers were needed to provide daily operations and maintenance to the lighthouse and construction of the settlement began at Cape Brett in 1909. This consisted of three keeper's houses and associated structures and building was complete by September or October 1909.<sup>6</sup>

During settlement construction potential keepers were interviewed at the Marine Department's head office in Wellington. The application forms were quite detailed and as well as personal information included a reference and certificates attesting to sobriety, honesty, industry and good health, particularly 20/20 vision.<sup>7</sup> Once the men were hired, they went through a six month probationary period where they learned the trade and prove their competence.<sup>8</sup> The probationary keeper was then promoted to an assistant keeper and after many years of experience they could be promoted to a principal keeper.<sup>9</sup>

Once the construction of the settlement was complete the first three keepers were stationed in 1910. This was the principal keeper Robert McIver, the first assistant Frances Ernest lee and the second assistant Arthur W Page.<sup>10</sup> Another 63 keepers and their families lived and worked here until the station closed in 1978.

During the first half of Cape Brett's functional life the keepers worked in a three shift cycle every night, starting an hour before sunset and ending at sunrise.<sup>11</sup> The first keeper would light the lamp of the lighthouse and stay in the light to maintain gas pressure by hand pumping the kerosene lamp. He would also spend 15 minutes of every hour winding the

weights.<sup>12</sup> The last keeper was assigned to the job of trimming the lamps, cleaning the lenses and drawing the curtain to prevent sun damage to the lens.<sup>13</sup>

The routine post-electrification involved the keepers spending an hour each morning and evening tending to the light. This consisted of a 20 minute walk up to the light, 20 minutes for turning the light on or off and then the 20 minute walk down from the light. This hour started 20 minutes before dusk and 20 minutes after day break.<sup>14</sup> The rest of the keepers' time on the station was split between paperwork, maintenance and life support activities. Eventually forms were developed by the Marine Department to suit every aspect of the running of the station.<sup>15</sup>



Figure 2: Noel Proebstel with a kerosene lamp (Proebstel Family collection)

The Cape Brett settlement was largely self sufficient. The keepers were generally expected to produce their own fresh produce and the houses at Cape Brett all had their own vegetable gardens, as well as a communal garden.<sup>16</sup> Farm animals were also kept for milk, eggs and meat and the wives baked bread and would have preserved meat before the stations received freezers.<sup>17</sup> Each house had its own 25,000 litre concrete water tank and an 1800 litre wash house tank. These were fed by rain water and hot water systems were installed in January 1944.<sup>18</sup> Dry spells during the summer often saw tanks around the station empty. The houses had no power and candles and lanterns were used for lighting. Meals were cooked on the coal range and there was no refrigeration for food.<sup>19</sup>

In the 1940's after complaints from the keepers wives the Marine Department installed new hot water stoves, enamelled in the colour of their choice, and a family sized, kerosene powered fridge for each house.<sup>20</sup> In 1968 the station was connected to the national grid and the lighthouse and homes had electricity.

The Cape had its own post office and postmasters as part of the principal keeper's office. It also had its own franking stamp and when the Government Life Insurance lighthouse stamp series was released in March 1962 it had its own postage stamp.<sup>21</sup> The Cape had its own school for the keeper's children and was open for three different periods March 1931 to December 1935, July 1937 to May 1941 and March 1944 to December 1944, based upon pupil numbers.<sup>22</sup>

Methods of communication were established during the stations construction these were a radiotelephone, telegram, VHF equipment, telephone, signalling and letters. The Cape had a weather station that was established by the Department of Science and Industrial Research and in 1956 the keepers were reporting the weather 3 times a day, and in the 1960s they had



Figure 3: Offloading stores 1932  
Quarrie Family collection

to report the weather statistics to the Auckland weather office 7 times a day.<sup>23</sup> In addition to this they were often called upon to aid the National Sea Air and Search Organisation, watching for missing boats, yachts and ships off the coast.<sup>24</sup>

Outside assistance came in the form of boats which were naturally the most used form of transport to and from Cape Brett (fig 3). The Deep Water Cove/Rawhiti track was utilised if the weather was rough or in an emergency. The keepers used the government steamers and whatever boat was available to get to Russell for appointments.<sup>25</sup> Helicopters were used in the 1960s and 70s to transport some of the marine Department's technical specialists. Helicopters were also used to place the lighthouse power poles, to move large objects from the landing to the top of the hill and to build the helipad at the lighthouse.<sup>26</sup>

Initially the keepers and their families had ordered stores delivered every four months by government steamers. Each family had a catalogue filled with all the food and other items the family needed.<sup>27</sup> Then between the 1940s and 1970s this increased to roughly every month to 3 weeks or a fortnight depending on the contractors and costs.<sup>28</sup>

With the threat of Japanese invasion in the early 1940's there was a signal station and radar station set up at the Cape. These were part of 5 coastal defences that were set up in the Bay of Islands under the management of the Bay of Islands Fortress Group.<sup>29</sup> Reports suggest that there were 6-14 men posted at the radar station. The length of the men's stay varied, and appears to have been up to 6 months for the signal station though only 6 weeks for the radar station.<sup>30</sup>

From 1910 to 1978 the settlement saw numerous families all of which left behind an immense human history recording aspects of daily life at the Cape. During a food delivery in the



1970s the Proebstel family had ordered ice cream in 2 gallon and 4 gallon containers. While the ice cream was in the crane's basket something snapped sending it into the ocean. The children raced to retrieve bowls and spoons. The ice cream was fished out of the water and then immediately consumed as it would not refreeze with all the salt in it.<sup>31</sup>

The first major vegetable garden was established by Hugh Jamieson the principal keeper from 1937-46.<sup>32</sup> Of the many factors to be considered one of the biggest issues was choosing the most sheltered location from sea spray. A spot was finally found on the steep slope to the extreme west of the hill face, overlooking the entrance to the Bay of Islands.<sup>33</sup> Each of the 3 keepers and their families had a plot in the garden and it was a big success producing kumara and lettuce. One of the kumara weighed 8 pounds 2 ounces (3.7kgs), and there was a lettuce that measured an impressive 37 inches (0.94m) across.<sup>34</sup> The communal garden apparently fell out of use by the late 1950s when the keepers reverted to growing vegetables in their individual backyards.<sup>35</sup>

Getting mail to the Cape was initially quite an achievement. It was delivered by several different methods, the most taxing of which was the trip from Rawhiti. Rewiri Ahu Tapu was the first postmaster of the post office in Rawhiti's schoolhouse opened 1905.<sup>36</sup> Rewiri's work day would start with a row to Oneroa to collect mail from Russell, back to Rawhiti to sort, after which he would row out to Cape Brett. During rough weather Rewiri would deliver mail to the Cape on horseback. He continued his run until he died on 23 May 1917. The earliest piece of mail remaining from Cape Brett is a postcard sent from Bakewell, England to John Clark at Cape Brett via Russell dated 23<sup>rd</sup> April 1909.<sup>37</sup>

Given the exposed nature of the Cape storms did not need to be very large to have an effect on operations.<sup>38</sup> The first reported storm damage was by keeper Donald Cameron on 4<sup>th</sup> April 1916. The crane at the landing was damaged, with the main support post snapped in half. The waves were said to have come up to the tramway- halfway up to the stores shed (roughly 20m).<sup>39</sup> A total of 11 storms were recorded at Cape Brett.<sup>40</sup> The largest wave reported is estimated to have broken over the principal keepers house which was 43 metres above sea level in 1951.<sup>41</sup>

*'[He] awakened at 2.30am to a crash of water on the roof and windows, on going outside the place was flooded with sea water, the waves breaking occasionally over [his] house. The crane and landing were out of sight under water most of the time'.<sup>42</sup>*

There was a horse at the station circa 1910 and was used to operate the whim so the trolley could move up and down the tramway. This horse's most telling characteristic was that whenever it heard the supply ship coming it would take off and try to hide. The horse worked until it died on the job in 1922.<sup>43</sup> Very early on goats provided fresh milk although wild goats became a problem on the peninsula later.<sup>44</sup>

Fishing was always a popular past time at Cape Brett and the most famous fishing story occurred in January 1931 when the principal keeper was George Sinclair.<sup>45</sup> Williams had

taken a Mr. White Wickham fishing near the Cape in the *Avalon*. Sinclair, in the lighthouse would signal to them when large fish were around. On this day they saw a Mako shark which was then caught by Wickham and was found to be the largest Mako ever to be caught in the Bay of Islands, at 3.51 metres and 362 kilograms.<sup>46</sup>

The life of a keeper was extremely busy especially for the principal keeper who acted as a Justice of the Peace, chairman of the school committee, fisherman, butcher, gardener, farmer, weatherman, mechanic, and carpenter. The assistant keepers took the role of postmaster more than principal keepers, with the rest of their time taken up with specially assigned tasks, in Cape Brett's case it was shooting goats.<sup>47</sup>

## Fabric Description

Today the main intact elements of the Cape Brett lighthouse and settlement are the lighthouse and the first assistant keeper's house. The lighthouse is no longer in use but is in excellent condition with largely complete inner workings. The house has changed from its original standard but the structural elements are much the same. It is now used for accommodation for trampers. The remains of the Cape Brett settlement consist of tangible (physical) and intangible (non physical remains). The best way to describe these two types of remains is as a whole. The tangible are however singled out as they have the highest values in terms of their fabric and its long term management and protection.

There tangible remains of the settlement are:

- The lighthouse and its inner workings
- The first assistant keepers house
- Concrete pads and concrete items from:
  - the principal keepers house
  - the second assistant keepers house
  - cow bails
  - buildings associated to the tramway
  - walking paths
  - naval radar station
- Water tanks
- The landing
- The tramway

## The lighthouse

This light's first official night as a navigational aid was on 21 February 1910 and it continued to aid sailors until around October 1978. There are varying reports on the light's actual visibility, but the Marine Department classified the Cape Brett Light as a first order group

white light, visibility at 30.5 nautical miles.<sup>48</sup> The light would flash at a standard rate of two flashes/one revolution every 30 seconds.<sup>49</sup> During World War 2 the light was often left off at night so it could not act as a guide for the enemy. Keepers continued night duties to aid shipping through signaling.<sup>50</sup>

A mercury bath was used as the rotating mechanism at Cape Brett and was the first of its kind in New Zealand and the second in the southern hemisphere.<sup>51</sup> It was the same kind that had become a standard feature in European lighthouses.<sup>52</sup>

The lighthouse at Cape Brett was designed by light house designer David Scott from the Marine Department.<sup>53</sup> The Marine Department went to tender for the best price available for the construction of the tower. The company selected was Chas Judd Ltd (1869), an iron and brass foundry in Thames operated by the Judd brothers the contract for £930 18s 9d (roughly NZ\$133,468.61 today) was accepted.<sup>54</sup> The tower – built of several iron plates and thousands of bolts – was constructed and assembled at the Judd foundry yard to make sure that all necessary parts were there for re-assembly at the Cape.<sup>55</sup> The construction on the 35ft tower had finished by 14 June 1909 when the Government steamer *Hinemoa* left Auckland for Thames to pick up the pieces of the tower to transport them to Cape Brett.<sup>56</sup> Once the steamer arrived at the Cape the pieces of the lighthouse tower were winched ashore by the crane before being put on the tramway and taken to the top of the hill for assembly.<sup>57</sup>

## The light

The light apparatus was manufactured by the Chance Brothers & Company Ltd in Smethwick, Birmingham.<sup>58</sup> The pieces of the light were shipped to Wellington before being transported north to Cape Brett in August 1909, where the installation was overseen by David Scott.<sup>59</sup> The equiangular refractor Fresnel lens used at Cape Brett was a first order lens (the largest of seven different sizes) manufactured in England by the Chance Brothers.<sup>60</sup> The lenses were constructed with a series of concentric rings of glass prisms above and below a central drum section, all of which worked to bend the light from the light source into a narrow beam.<sup>61</sup> The bull's eye design that featured on most of the Fresnel lenses operated to make the narrow beam produced even more powerful and the number of beams produced depended on the configuration of the prisms (fig 4).<sup>62</sup>



Figure 4: The lens at Cape Brett Lighthouse  
(DoC 2008)

## The lantern

The lantern and mechanism were both sourced from Edinburgh, Scotland.<sup>63</sup> The lantern came from James Dove & Company of Greenside, Edinburgh, while the mechanism (the machinery which made the light turn) was sourced from James Milne & Son Ltd who appeared to have been brass founders.<sup>64</sup> Every lens had a different form so that mariners could distinguish between lights based on the characteristics the lens would produce.<sup>65</sup> In Cape Brett's case the bull's eye design featured twice in the design and acted with the lamp to produce the light's identifying characteristics. Several different types of lamps were used during the light's history, with the type of lamp determined by the type of fuel to be used. The first lamp was an incandescent kerosene burner, which was replaced by the electric powered bulbs that are still in situ inside the lens.<sup>66</sup>

## The mercury bath

There were many advantages to using a mercury bath to rotate the lens, which overruled the disadvantages of using the mercury.

Advantages included:

- Increased rotational speed of the mechanism.<sup>67</sup>
- Near-frictionless rotation resulting from the liquid.<sup>68</sup>
- The mercury could hold more weight than the roller and ball bearing method (Approximately 100kg of mercury could support three tonnes of weight).<sup>69</sup>
- The system offered less wear and tear, giving a longer lifespan.<sup>70</sup>
- These factors combined meant that a smaller motor was needed because the bath could support a greater weight than other rotation devices.<sup>71</sup>

Disadvantages included:

- Earthquakes and spillages had to be followed by the painstaking process of gathering up all the mercury.<sup>72</sup>
- A toxic vapour was released when the mercury amalgamated with rust from the turning unit, requiring the cleaning of the bath and replacement of the mercury.<sup>73</sup>

The installation began in October 1909 and was carried out by five workmen.<sup>74</sup> When it was completed a plaque was attached to the basin of the mercury bath.

Different types of fuel were used during the light's 68 years. Kerosene was the first, supplied regularly in small quantities and stored in a purpose-built shed next to the lighthouse. The tanks were installed on the second floor of the light tower.<sup>75</sup>

In 1955 the lamps were converted to electricity provided by diesel electric motors.<sup>76</sup> The engines were also used to operate the tramway when it was needed.



The new lighthouse at Cape Brett, which has been in course of construction for some eighteen months, will be lighted on Monday next. It is of a unique variety (the only other one of the kind in the Southern Hemisphere is in South Australia), and it is anticipated that it will be a great aid to the safe navigation of that part of the coast of New Zealand. The tower, which is painted white, is at an altitude of 510ft above sea level, and the powerful rays can be seen for a distance of thirty miles.

The last issue of the Gazette gives notice that a lighthouse is being erected on Cape Brett, the south-eastern point of the Bay of Islands, in latitude 35deg 11min S. and longitude 174deg 21min E. (approximate). The light is to be a first-order white group-flashing one, with two flashes in quick succession every half minute. The focal plane of the light will be 510ft above high water, and it should be visible, except when obscured by the land, over an arc of 240deg for a distance of thirty miles. It is expected that the light will be exhibited by about the middle of February, 1910, but a further notice to mariners giving the exact date will be issued later on.

An article from the Evening Post on 18 February 1910 announcing the lighting of Cape Brett.<sup>77</sup>

Painting was a standard task for the keepers and seemed to occur at no regular interval for Cape Brett. When the tower was stripped right back to the ironwork during the Department of Conservation makeover in 2007 the painters found a buildup of 60 layers of paint.<sup>78</sup> They also replaced the large front doors, a second floor window and 14 cracked panes around the light.<sup>79</sup>

When the light tower was closed in 1978 and the light beacon installed, the brightness of 1,000,000 candles was reduced to 40,000 candles, with the visibility reduced to 17 miles, and the flash changing to a 0.3 second white flash every 2.5 seconds.<sup>80</sup>

## The tramway, landing, associated features and the multiple cranes

These were all part of Cape Brett's transport system; used to unload supplies for the settlement and distribute to the various places up the slope. In turn items were also loaded and shipped from the Cape. Construction on the landing and crane followed by the tramway, winch and associated buildings began in 1908-09. (fig 6)

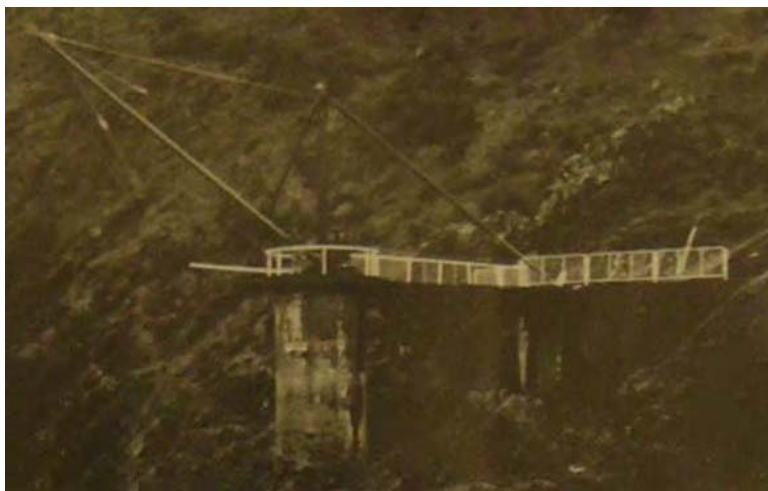


Figure 6: The landing with crane and barriers 1970's (Archives)

To build the landing, the rock at the top of the platform had to be blasted to create a flat area for unloading and loading goods and materials onto the tram trolley.<sup>81</sup> A concrete and iron pillar forms the base of the landing. The landing was enlarged and safety barriers were situated by the Marine Department after a young naval rating fell and died.<sup>82</sup> Concrete barriers were placed on the eastern side of the landing, with those on the west being removable. The removable barriers allowed offloading of stores straight onto the block, and ensured that the barriers could not be washed away in large swells.<sup>83</sup>

The crane located on the landing, was used to move stores, mail, keepers property, animals, construction materials and other items from the various boats on to the landing. The first of the series of cranes to be built at the cape was a one ton derrick constructed by the W. Crabtree and Sons Company based in Wellington.<sup>84</sup> Made predominantly of iron and powered by a hand winch, the first crane lasted until a severe storm in 1924 washed it off the landing and into the ocean.<sup>85</sup> The replacement cranes were constantly in need of maintenance owing to frequent damage during storms. When it became damaged beyond repair the Marine Department usually updated the crane based upon new designs or technology.

The tramway was constructed to move goods delivered from boats up and down the tracks in a large trolley attached to a cable. It was constructed using concrete and rails and was originally powered by a single horse and whim working from the top of the tramway. It was later operating with a diesel engine housed in one of the tramway sheds.<sup>86</sup> The tramline was extended during World War II to the ridgeline above the lighthouse. Thus connecting the stations major supply line to the naval station to move supplies up to the Navy personnel. When the naval station was closed it was again shortened back to its original length.

The tramline was modified one final time when it was shortened to approximately half its original length and ran to just above the level of the second house, as the top half was no longer needed to move fuel or large quantities of supplies right up to the lighthouse.<sup>87</sup>

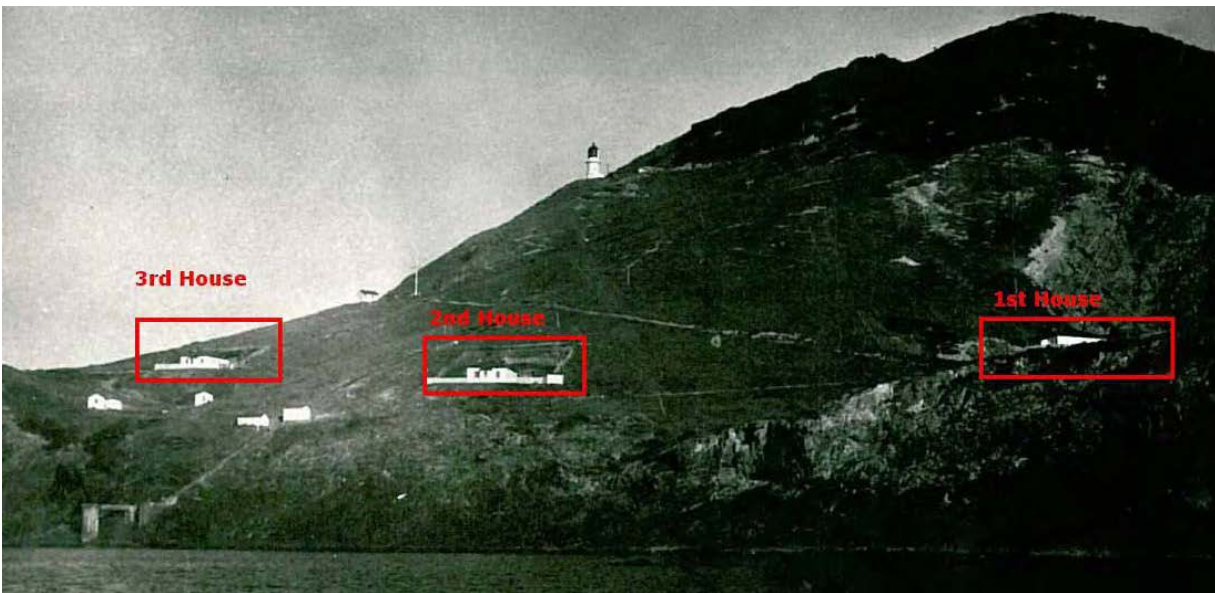
Structures of the settlement tended to be victims of storms on most occasions but the crane was damaged frequently during storms and one in 1924 completely demolished the crane, ripping it off the concrete it was bolted to. Storms continue to damage the station even today.

## The keeper's houses

Three houses were built for the lighthouse keepers and their families and they all had the same features, the main house had a water tank that held over 25000 litres, a wash house, a fowl house and a white picket fence (fig 7). They were built of kauri and were finished by September or October 1909 so that the first keepers could move in. Each house had eight rooms and was filled with standard furniture supplied by the Marine Department. The

houses weren't free for the keepers and they all had to pay rent which was deducted from their pay.<sup>88</sup>

Of the houses only the first assistant keepers house remains and today is used as a DoC trampers hut. The principal keepers house was demolished by the Bay of Islands Maritime and Historic Park Board in the 1980s due to deterioration.<sup>89</sup> From 1955 onwards the second keepers assistant house was used as a accommodation hut and after 1978 it was probably demolished.



**Figure 7: The 3 keeper's houses (1-principal keepers, 2-first assistant, 3- second assistant keepers. (Webley Family collection)**

## The schoolhouse

The schoolhouse was built in 1909 and was positioned below the second assistant keepers house and was also built of kauri. It was a single room building and was in every way a stereotypical New Zealand rural school with mixed age classes, blackboards, school desks and students work on the walls.<sup>90</sup> There was a playground located between the workshop and schoolhouse.<sup>91</sup> When it rained a small stream lined with toi-toi divided the playground in two. The school house was converted into a workshop, engine room and storage facility in February 1969 owing to lack of students.<sup>92</sup>

## The signal hut/station aka the port war signal station

The signal hut was originally built by the Marine Department for signalling ships. However it was also used for other activities including boat building and during WWII was converted into a naval station to keep watch over the Bay for the Japanese.<sup>93</sup> In 1950 storm damage to



the signal mast resulted in the decision to remove the mast to Russell, but by 1955 it was still positioned at the Cape. It eventually ended up outside the Russell visitors centre with a plaque, and it was later removed due to bad deterioration. After WWII it fell into disuse and became a source of materials to repair other buildings and a new chicken coop.<sup>94</sup>

### The naval radar station

The naval radar station at the Cape was one of 13 built throughout the country.<sup>95</sup> It was opened at Cape Brett in March 1942 and was operated by naval personnel and run in conjunction with the signal station for a short period of time. Based on a sketch plan of the station in 1943 there were 5 buildings, a shed for the tramway hauling engine, accommodation and mess, ablutions, engine shed and radar hut.<sup>96</sup>

### The power house

The last and singularly dedicated building was the power house, built in 1968. It housed the generator, workshop, book/radio/store room and office.<sup>97</sup>

### The kerosene store

Kerosene was used to fuel the light and was stored in a purpose built shed. It was known as a dry store or oil store. It was demolished in 1962.<sup>98</sup>

### The tramway buildings

There was a series of buildings along the tramway with concrete pads that can still be seen today. They were the boat shed, the stores shed and the engine shed which was further up the tramway from the stores shed (fig 8). The tramway was constructed using concrete and rails and was originally powered by a single horse and whim working from the top of tramway. A long cable moved goods up and down track. Later it was operated with a diesel engine.<sup>99</sup>

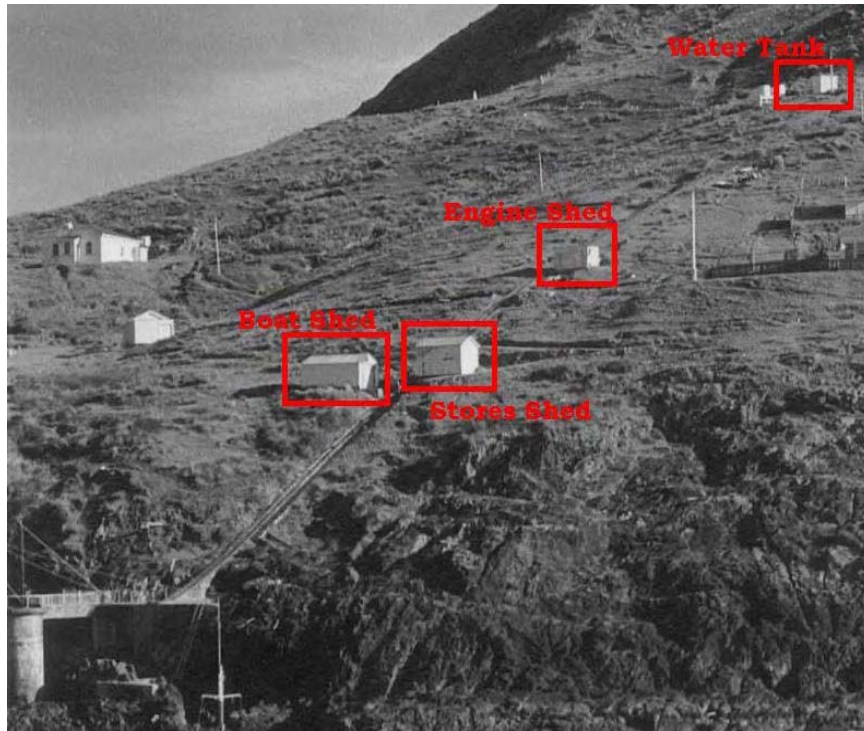


Figure 8: The tramway buildings (Unknown donator)

### The workshop and forge

The workshop existed for most of the settlement's history while the forge only lasted until around 1939-41. They were located in the gut below the third house across from the school.<sup>100</sup>

### The pump house

This was built to supply water to the naval radar station and was taken over by the Marine Department after the war.<sup>101</sup>

### Fowl house the third

This was made for the second assistant keepers house (area later used as a helicopter landing pad). It was probably the windiest place at the station and the structure regularly blew down.<sup>102</sup>

### The cow bails

This was where the cows were taken for milking- between the first and second houses. The concrete pads are still visible today.<sup>103</sup>

## Cultural Connections

The cultural connections of the Cape Brett settlement are immense. The families that lived there have numerous descendants throughout New Zealand. These people can all be found in the 'Beacon of the Bay'. The Rakaumangamanga Peninsula also has important Maori values.

## National Context

The New Zealand coast was plagued by shipwrecks from the earliest period of settlement. In 1808 New Zealand's first severe shipwreck occurred at Cape Brett, when the schooner *Parramatta* was blown ashore during heavy weather as she was leaving the Bay of Islands to head back to Sydney.<sup>104</sup>

The first navigational device to appear on the New Zealand coast is believed to have been a beacon established at Maketu, near Tauranga, around 1831-32.<sup>105</sup> From then there seems to have been similar moves by New Zealand's other provincial governments to establish different devices to aid shipping. A lantern, with reflector, was established on Nelson's Boulder Bank in 1848.<sup>106</sup> It had a visibility of 12 nautical miles.<sup>107</sup> Four years later, in 1852, a temporary keeper's cottage was established on the Wellington Heads at Pencarrow.<sup>108</sup> The cottage was tended by George and Mary Bennett until replaced in 1859 when New Zealand's first lighthouse was lit on 1 January.<sup>109</sup>

In 1854 the central government established the first agency to deal with the question of lighting the coast.<sup>110</sup> The Beacons and Lighthouses Committees review found the existing situation severely lacking, which is not surprising as there were only temporary beacons established around the coast and no substantial lights. The Pencarrow light, marking the eastern entrance to Wellington Harbour — was honoured with the country's first and seemingly only woman to preside over a light. Mary Bennett was the first keeper, who took over after her husband died in 1855. Pencarrow's was a white flashing light with a visibility of 30 nautical miles (nm).<sup>111</sup> It was followed in 1862 by a permanent light on Nelson's Boulder Bank that had an increased visibility of 12.5 nautical miles.

In November 1862 the Marine Board Act was passed.<sup>112</sup> The purpose of the Act was to remove control of harbours and shipping from the provincial governments and gain control of lighthouse management.<sup>113</sup> The Marine Board lasted for four years, during which time there was a burst of construction with five lighthouses built during 1865.<sup>114</sup> In 1866 the Marine Board changed to the Marine Department under lighthouse engineer, James Balfour<sup>115</sup>. James Balfour and his staff, between 1870 and 1879, built an impressive eleven coastal lights and six harbour lights in just nine years.<sup>116</sup>

The department's short-lived independence came to an end when it was reabsorbed into the Customs Department in 1881.<sup>117</sup> Between 1880 and 1897 a total of 26 major coastal lights were erected completing the network. Construction was absorbed by the Public Works Department from 1893.<sup>118</sup> With completion of the major network the Marine Department began to fill in the gaps in the lighting system - one of these being the coast between the lights at Moko Hinau and Cape Maria Van Diemen. This is the gap that Cape Brett Lighthouse was to fill within the next few years. Once construction was completed the department turned its focus to the day to day running and management of the lighthouse system. The department underwent no major changes until 1972 when it was absorbed by the Ministry of Transport; later becoming part of the ministry's Nautical Branch.<sup>119</sup> In 1990 it became a separate Crown entity - the Maritime Safety Authority - before being renamed Maritime New Zealand in 2005.<sup>120</sup> Maritime New Zealand currently operates 24 lighthouses and 74 light beacons from the head office in Wellington.<sup>121</sup> Faults are detected and repaired remotely via the MNZ active control system.<sup>122</sup>

## Historic Significance

Cape Brett is a part of the prehistorically and historically rich Bay of Islands. Its significance lies in the well documented and known human history that is available on the lighthouse and settlement.

## Fabric Significance

Cape Brett Lighthouse was the first in New Zealand and the second in the southern hemisphere to use a mercury bath as its rotational device. It was the last of New Zealand's first order lighthouses to be installed and the only one erected in the twentieth century. The lighthouse is highly significant as its original elements are largely intact. It is registered as a category 1 historic place, given to a place that has 'special or outstanding historical or cultural heritage significance or value.'

"Cape Brett Lighthouse is remarkable in that it is virtually complete as an abandoned installation, and could be returned to a fully operational state without very much restoration. It is unique in New Zealand as the only lighthouse to have survived in place with its original equipment substantially intact. It shows the complete working of a lighthouse through the whole range of lighthouse operation in New Zealand. All of its operating mechanism is intact and remains in the context of its use. This also includes the lighthouse settlement. Even with the removal of many of the buildings, the layout of the site and the building remains make very clear the context in which the lighthouse stood and still stands, as part of a whole lighthouse station landscape".<sup>123</sup>

## Cultural Significance

The lighthouse is highly significant to the families who lived and worked at Cape Brett and their descendants, the land is also of great significant to Ngati Kuta and Patukeha's traditions and whakapapa, and as part of New Zealand's early maritime time history.

## Management Recommendations

- The continuation of the high management standards of the Department of Conservation.
- Monitoring of the lighthouse and its inner workings for signs of deterioration so that these can be repaired as necessary.

## Management Chronology

- 1978- The lighthouse was closed.
- 1987- The Department of Conservation took over the management of the lighthouse and settlement from the Lands and Survey Department.
- 1996- The only remaining building from the settlement, the first assistant keeper's house was refurbished by DoC to provide a hut for trampers. The house was gutted and a kitchen established along with two large and one small bunk room and a back door step area. Toilets were built at the back of the hut. The walls were painted, the floor varnished, the water was re-plumbed and gas stoves were put in.
- 2005- The lighthouse was given to the Department of Conservation by the Marine Department.
- 2007- The lighthouse underwent a major makeover. It was painted by Whangarei firm Rudolphs which took six weeks. Sixty layers of old paint had to be stripped off the outside of the tower before the layers of fresh paint could be applied. A special type of primer had to be used on the tower because, having been forged in New Zealand, the Cape Brett tower's iron has different carbon content from English towers. Eighty percent of the tower had to be stripped by hand and the remainder was stripped using three tonnes of garnet a heavy-duty sandblasting material. The doors, a second floor window and fourteen cracked panes had to be replaced. The doors were made of wood and weighed 600kgs.

- May 2008- DOC Visitor and Historic teams from both Kerikeri and Russell and NorthTecs conservation corps students spent four days out at the Cape re-establishing one of the old tracks used by keepers going to and from the lighthouse. The teams also cleaned up around the hut and uncovered some of the Puff the Magic Wagon track that runs past the front of the hut.
- July 2008- DoC Kerikeri visitor and historic team were back at the lighthouse for a few days to clean up the inside of the building, with the help of three American volunteers. The badly flaking paint was scraped off, and the floors were swept and scrubbed down. The paint flaking was most noticeable on the NW and SE walls on the inside of the tower where the weather hits hardest.
- 2009- 26<sup>th</sup> June: The Cape Brett Lighthouse was confirmed as a category 1 Historic Place.
- 2010- The roof of the first assistant keeper's house was replaced.

## Management Documentation

Current DoC management file numbers:

Northland - Bay of Islands Area Office - **Cape Brett** Settlement - Archaeological Site Records

[HHA-01-02-28](#) NLB-1 25/06/2003 Northland - Bay of Islands Area Office - **Cape Brett** - Manawahuna Scenic Reserve [HHA-01-02-28-01](#) NLB-1 30/08/2005 - 31/12/2007 Northland - Bay of Islands Area Office - **Cape Brett** Lighthouse - Painting [HHA-01-02-28-01](#) NLB-2 01/05/2007 - 31/12/2007 [HHA-01-02-28-01](#) NLB-3 01/05/2007 - 31/12/2007 [HHA-01-02-28-01](#) NLB-4 02/09/2005 - 31/01/2006 [HHA-01-02-28-01](#) NLB-5 29/09/1966 - 31/12/2000 [HHA-01-02-28-02](#) NLB-1 01/01/1993 - 30/11/2000 Northland - Bay of Islands Area Office - **Cape Brett** Lighthouse - Historical Background Information [HHA-01-02-28-02](#) NLB-2 01/01/1982 - 20/12/2000 [HHA-01-02-28-02](#) NLB-3 05/10/1978 - 18/04/1996 [HHA-01-02-28-02](#) NLB-4 01/03/67 - 30/11/2000 [HHA-01-02-28-02](#) NLB-5 06/02/46 - 28/04/2008 [HHA-01-02-28-02](#) NLB-6 01/01/1924 - 01/01/2000 [HHA-01-02-28-02](#) NLB-7 01/04/1966 - 31/12/2000 [HHA-01-02-28-02](#) NLB-8 01/01/1910 - 31/12/1978 [HHA-01-02-28-02](#) NLB-9 19/05/2010 [HHA-01-02-28-03](#) NLB-1 13/08/1958 - 15/02/1972 Northland - Bay of Islands Area Office - **Cape Brett** Lighthouse - Historical Maritime Safety Monthly Reports and Statistics [HHA-01-02-28-04](#) NLB-1 01/01/2007 - 31/12/2008 Northland - Bay of Islands Area Office - **Cape Brett** Lighthouse - Restoration Handwritten Notes [HHA-01-02-28-05](#) NLB-1 01/01/1997 - 31/12/1997 Northland - Bay of Islands Area Office - **Cape Brett** Lighthouse - Historic Lighthouse Preservation Book

Heritage assessment: *docdm*: 758552

Baseline inspection: *McAlpine, C., 2008. Beacon of the Bay: The Cape Brett Lighthouse Settlement and its Families. Department of Conservation [www.doc.govt.nz](http://www.doc.govt.nz)*

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The following tables list the keepers of the Cape Brett Lighthouse from 1910-1978. For extensive coverage of the families and people associated to the lighthouse and settlement see "The Beacon of the Bay" [www.doc.govt.nz](http://www.doc.govt.nz) by Christen McAlpine.

## Appendices

### First Keepers (1910-1920)

Year	Principal Keepers	First Assistant Keepers	Second Assistant Keepers
1910	Robert McIver	Frances Ernest Lee	Arthur W. Page
1911			
1912	George William Thwaites	S. William Creamer	
1913	Henry Harvey		Albert Victor Pearce
1914		Donald Cameron	
1915			
1916	Charles Reisop, William Knight Cleverley		Harold McKinna
1917		Thomas Cairns	
1918			
1919	Alfred Herbert Sanders		Charles William Davis
1920		Douglas James Grindlay	

### Pre-World War 2 (1921-1936)

Year	Principal Keepers	First Assistant Keepers	Second Assistant Keepers
1921		Alfred Walter Young	Erick Harold Tarlton
1922	Charles Arthur Moeller (& James		Oscar D. McFarlane

	Smith), Robert Henry Leighton		
1923	Albert Victor Pearce		
1924		Oscar D. McFarlane (Promotion)	Reginald Shearwood
1925	Robert Stephen Wilson		
1926		Reginald Shearwood (Promotion)	Name Unknown
1927		Alfred E. Carter	Alfred G. Hodge
1928			
1929		Ernest (EH) Sandley Graham	
1930	George Sinclair		Walter Leighton
1931			Samuel Budd
1932		H. W. Gausel	
1933	Percy Edwin White	Charles E. Grey	
1934			James Pullen
1935			
1936	Joshua Stuart Roberts		Charles C. Emmens

#### The Jamieson Years - 1937-1946 (including World War 2)

Year	Principal Keepers	First Assistant Keepers	Second Assistant Keepers
1937	Hugh Barbour Jamieson	Fleetwood R. Tennent	
1938			
1939			Bert Lake / Kenneth Webley

1940		William Tait	
1941		Mawhataio Todd	
1942			Robert J. Naulls
1943			
1944		Ray H. Batemen	
1945			
1946		Jack Shepherd	N.F. Jennings

### Post War - (1947-1956)

Year	Principal Keepers	First Assistant Keepers	Second Assistant Keepers
1947	Eric I. Bowley, Jack Shepherd	N.F. Jennings	Mr Gillipond
1948		William Joseph Johnson	L. Carlise
1949		C.P. Gallop	
1950			
1951			
1952	Cecil Olsen, Thomas Robert, (Bob) Welch,	A.J. Wareing	Rod McIntosh
1953		James R.J. Smith	
1954	Ronald Downie		
1955		gap	gap
1956		gap	gap

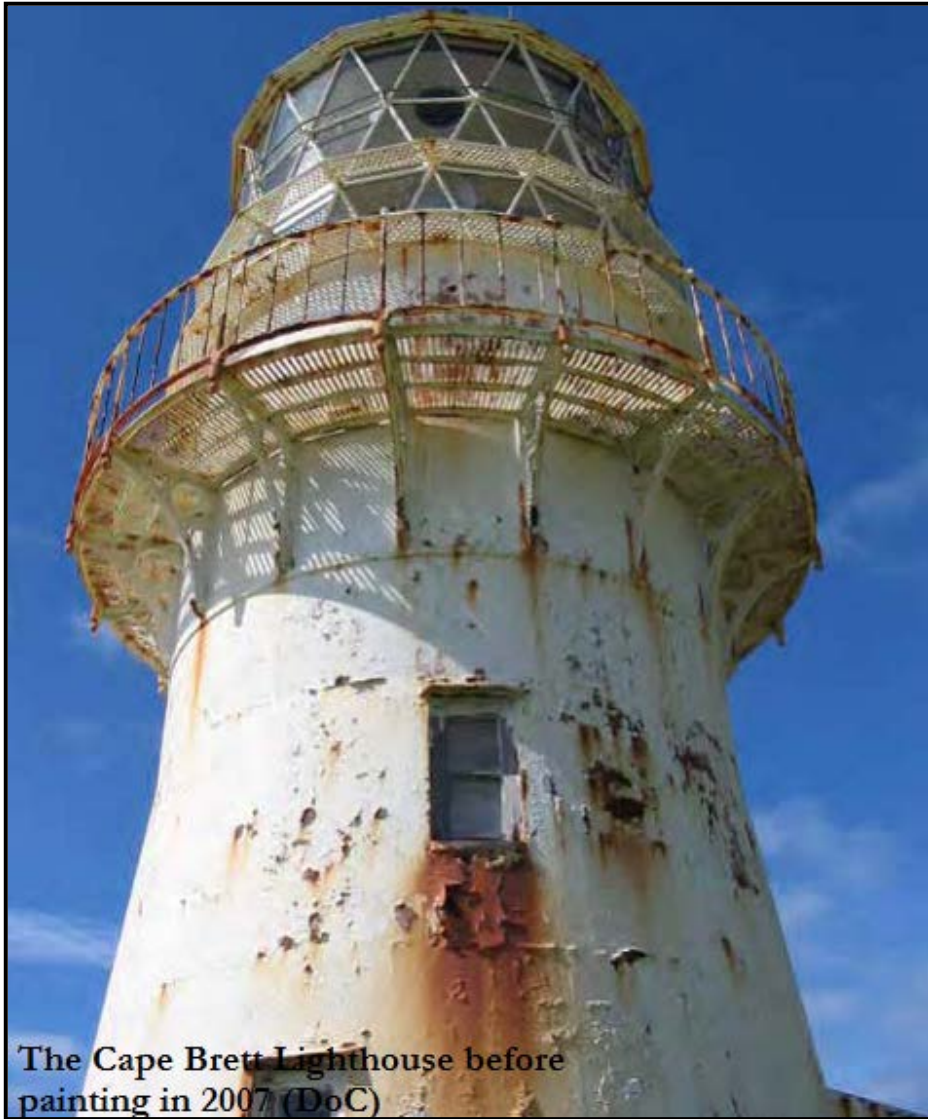
### A Two Keeper Station (1957-1968)

Year	Principal Keepers	Assistant Keepers
1957	<u>Temporary Keepers</u> James Sutherland James R. Smith Kenneth Frank Valentine	James Sutherland (Acting as Principal Keeper) Kenneth Frank Valentine (Acting as Principal Keeper)
1958	Raymond James Johnson	
1959		Mr Shepherd

1960	Brian Frederick Mason	
1961		F.W. Roe
1962	Ronald Sears	
1963		
1964		F.W. Roe I.A. Harris
1965	Peter John Rodda	Bryan M. Richards
1966		
1967		J R Murray
1968		

#### The Proebstel Years and De-manning (1969-1978)

Year	Principal Keepers	Assistant Keepers
1969	Noel Probestel	Bill Chee
1970		Barry Skinner
1971		
1972		Steve O'Neill
1973		
1974		
1975		Ron Allen
1976		
1977		
1978		J. Scapens



The Cape Brett Lighthouse before painting in 2007 (DoC)

Appendix 1



The Cape Brett Lighthouse after painting 2007 (DoC)

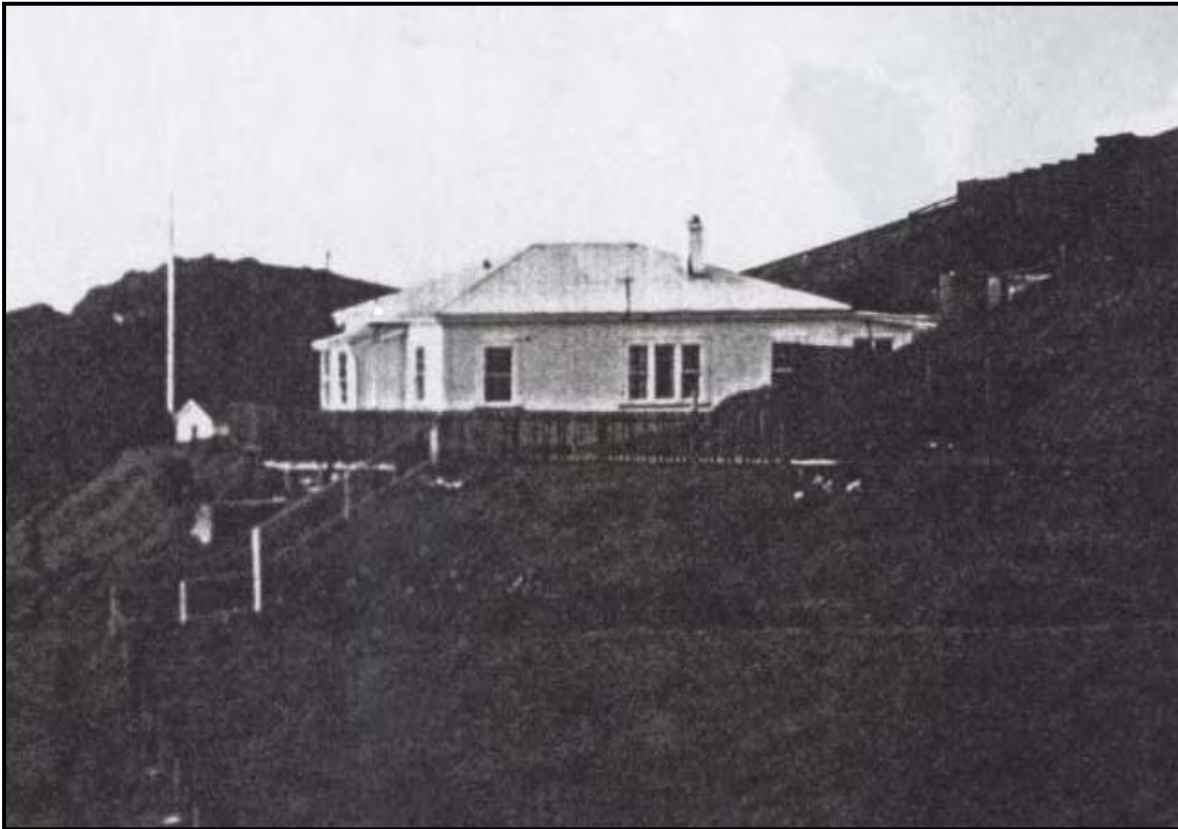
Appendix 2



Appendix 3: Spares cupboard on the second floor of the lighthouse still full of equipment from when the lighthouse was operational (DoC 2008)



Appendix 4: The bottom floor of the lighthouse (DoC 2008)



Appendix 5: The first assistant keepers house in the 1970's (Proebstel family collection)



Appendix 6: The landing and tramway at Cape Brett (K. Upperton 2010)





Appendix 7: The concrete pads from the second assistant keepers house (K Upperton 2010).



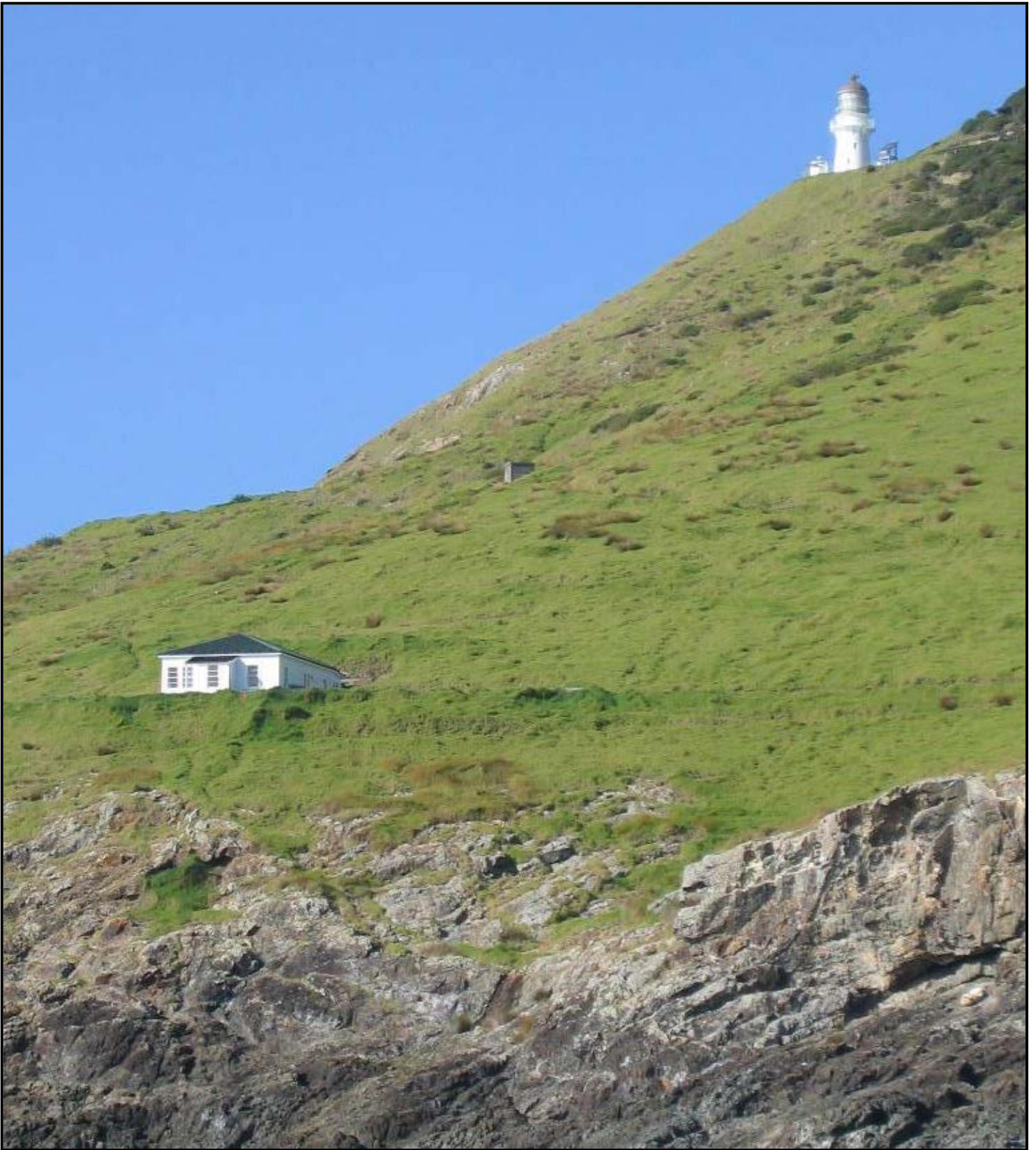
Appendix 8: The concrete remains of the principal keepers house partially covered with grass and its water tank now with a modern roof. The first assistant keepers house seen in the background (K. Upperton 2010).



Appendix 9: The cow bails (K. Upperton 2010).



Appendix 10: Underwater image of part of the crane winch for the tramway and landing (K Upperton 2010).



Appendix 11: The Cape Brett Lighthouse and the first assistant keepers house as seen today (K Upperton 2010)

## Endnotes

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<sup>1</sup> Daily Southern Cross, 16 November 1874, P3.

<sup>2</sup> Stoddart, R.E. 1984. National Archives, Department of Internal Affairs.

<sup>3</sup> Appendices to the Journal of the House Representatives (AJHR), 1907,H15

<sup>4</sup> *Op cit*: Stoddart:1984

<sup>5</sup> *Op cit*:Stoddart:1984

<sup>6</sup> McAlpine. C. 2008:45

<sup>7</sup> Beaglehole. H. 2006:235

<sup>8</sup> *ibid*

<sup>9</sup> *Op cit*: McAlpine.: 74

<sup>10</sup> *Op cit*: McAlpine: 80-81

<sup>11</sup> *Op cit*: Beaglehole,: 211

<sup>12</sup> *Ibid*

<sup>13</sup> *Ibid*

<sup>14</sup> New Zealand's woman's weekly. 1973:24-5

<sup>15</sup> Gibbons, A., Sheenan. G., 1991.

<sup>16</sup> Pollock 2007: 125

<sup>17</sup> *Op cit*: McAlpine: 136

<sup>18</sup> Lighthouses- Buildings- Cape Brett- Water Supply, Ministry of Transport Head Office part 1, 1930-1974.

<sup>19</sup> *Op cit*: Pollock: 161

<sup>20</sup> *Ibid*

<sup>20</sup> Lighthouses- Landings-Cranes- Winches-Cape Brett, Ministry of Transport. Whangarei District Office 1957-1973.

<sup>21</sup> *Op cit*: McAlpine: 138

<sup>22</sup> *Op cit*: McAlpine: 129

<sup>23</sup> Cape Lighthouse Keepers, New Zealand Meteorological Service 1935-1952.

<sup>24</sup> *Op cit*: McAlpine:145

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- <sup>25</sup> Blow, C. 2008 letter to Christen McAlpine.
- <sup>26</sup> *Op cit*: McAlpine :135
- <sup>27</sup> *Op cit*: Beaglehole: 214.
- <sup>28</sup> Angus, D. 2007 Personal Communication.
- <sup>29</sup> Salmond Reed: 2001:1
- <sup>30</sup> *Op cit*: McAlpine: 125
- <sup>31</sup> *Op cit*: Angus. 2007.
- <sup>32</sup> *Op cit*: Pollock:125
- <sup>33</sup> *Op cit*: Pollock:53
- <sup>34</sup> *Op cit*: McAlpine:53
- <sup>35</sup> *Ibid*
- <sup>36</sup> New Zealand Postal Service. No date. *History of Services by sea in the Bay of Islands*. New Zealand Postal Service: Wellington.
- <sup>37</sup> *Op cit*: McAlpine:138
- <sup>38</sup> Cape Brett lighthouse - Storm damage, Marine Department 1916 – 1958.
- <sup>39</sup> *Ibid*
- <sup>40</sup> *Ibid*
- <sup>41</sup> *Ibid*
- <sup>42</sup> *Ibid*
- <sup>43</sup> Anderson. I. 1982
- <sup>44</sup> *Op cit*: Pollock: 153
- <sup>45</sup> Harry Thomson. H. Personal communication: 2007.
- <sup>46</sup> Mollet, Henry F. 2002. 'Summary of Large Shortfin Makos *Isurus oxyrinchus*.' Website.
- <sup>47</sup> *Op cit*: McAlpine: 75
- <sup>48</sup> *Op cit*: Beaglehole: 291.
- <sup>49</sup> *Ibid*
- <sup>50</sup> *ibid*
- <sup>51</sup> Ministry of Transport, Marine Division: 1973.

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<sup>52</sup> *Op cit*: Beaglehole: 151.

<sup>53</sup> O'Connell. R. 1975: 122.

<sup>54</sup> The Evening Post: 1909: 7. Website

<sup>55</sup> C Judd Construction of Ironwork of Cape Brett Lighthouse no date.

<sup>56</sup> The Evening Post:1909:8

<sup>57</sup> *Op cit*: Pollock, M:123.

<sup>58</sup> Martin, Eric R. 1969. *Marine Department Centennial History* :62.

<sup>59</sup> O'Connell. R, 1909: 8.&122. The Evening Post.

<sup>60</sup> Cape Brett Lighthouse, Mercury Bath Plaque.

<sup>61</sup> Michigan Lighthouse Conservancy. 2008.

<sup>62</sup> *ibid*

<sup>63</sup> Martin-Buss. A. 1978: 62.

<sup>64</sup> *ibid*

<sup>65</sup> Michigan Lighthouse Conservancy. 2008.

<sup>66</sup> *Op cit*: Martin-Buss. A: 95-6.

<sup>67</sup> *Op cit*: O'Connell. R.; 120.

<sup>68</sup> *Op ci*: tO'Connell Ross: 120-21.

<sup>69</sup> *ibid*

<sup>70</sup> *Op cit* Martin-Buss. A: 95-6.

<sup>71</sup> *Op cit*: O'Connell Ross: 121

<sup>72</sup> *Op cit*: Beaglehole: 166.

<sup>73</sup> *Op cit*: Martin-Buss: 95-6.

<sup>74</sup> George Allport, Secretary, Marine Department, Wellington - David Scott, Lighthouse Expert - to proceed per "Hinemoa" to Cape Brett to erect the lantern, machine, and apparatus at that station - taking 5 men - arrangements for wages. List of tools etc to be procured, New Zealand Customs Service, Auckland Office (BBAO), series 5544, item 116a, rec. 1909/1664, 1909-1909, ANZ.

<sup>75</sup> *Op cit*: McAlpine: 29

<sup>76</sup> *Op cit*: Martin-Buss: 95-6.

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<sup>77</sup> Left: The Evening Post, 18 Feb 1910, p8. British Medical Association & right: The Evening Post, 25 Nov 1909, p6 by *Telegraph*

<sup>78</sup> Blanshard, A, 2008. Personal communication.

<sup>79</sup> *Op cit*: McAlpine: 34

<sup>80</sup> Churchman, Geoffrey B. 1989. *New Zealand Lighthouses*. GP Books: Wellington, NZ. p37

<sup>81</sup> Anderson, I. 1982. Unpublished letter c/o Leonie Anderson.

<sup>82</sup> To S Anderson, Re: Cape Brett Lighthouse. 5 August 1982. From Bruce Collier, Ministry of Works and Development, Whangarei.

<sup>83</sup> *Op cit*: McAlpine:37

<sup>84</sup> W Crabtree and Sons - Construction of Derrick Cranes for Cape Brett and Cape Saunders Lighthouses, Public Works Department (ACHL), Tenders Board Contract Documents, series 19315, Acc. WW510, item 10, rec.1435, no date, ANZ.

<sup>85</sup> Anderson, S. 1982, Letter.

<sup>86</sup> *Op cit*: McAlpine: 38

<sup>87</sup> *Op cit*: McAlpine:39

<sup>88</sup> *ibid*

<sup>89</sup> *Op cit*: McAlpine:46

<sup>90</sup> *Op cit*: McAlpine: 53

<sup>91</sup> Pollock.M: 123.

<sup>92</sup> *ibid*

<sup>93</sup> *Op cit*: McAlpine: 56

<sup>94</sup> C Judd Construction of Ironwork of Cape Brett Lighthouse, PWD, series 19315, Acc. W510, item 10, rec. 1443, no date, ANZ.

<sup>95</sup> *Op cit*:Beaglehole. H: 219.

<sup>96</sup> *Op cit*: McAlpine: 59

<sup>97</sup> *Op cit*: McAlpine:62

<sup>98</sup> Pollack, M. 2007 to June 2008. Personal communication

<sup>99</sup> *Op cit*: McAlpine:38

<sup>100</sup> *Op cit*: McAlpine: 70

<sup>101</sup> *Op cit*: McAlpine:71

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- <sup>102</sup> *Op cit*: McAlpine:72
- <sup>103</sup> *Op cit*: McAlpine:73
- <sup>104</sup> Taylor, P. 1975: 126
- <sup>105</sup> Beaglehole. H: 28.
- <sup>106</sup> *Ibid*
- <sup>107</sup> *Ibid*
- <sup>108</sup> *Ibid*
- <sup>109</sup> Phillips, M. 2005. URL:<http://www.newzealandlighthouses.com/pencarrow.htm>. Accessed: 11 February 2008.
- <sup>110</sup> *Op cit*: Beaglehole, H: 28.
- <sup>111</sup> *Op cit*: Beaglehole, H: 43.
- <sup>111</sup> *Op cit*: Beaglehole, H: 43.
- <sup>112</sup> *Op cit*: Beaglehole, H: 272.
- <sup>113</sup> *Op cit*: Beaglehole, H: 51.
- <sup>114</sup> *Op cit*: Beaglehole, H: 55-56.
- <sup>115</sup> *Op cit*: Beaglehole, H: 61.
- <sup>116</sup> *Op cit*: Beaglehole, H: 63 & 279.
- <sup>117</sup> *Op cit*: Beaglehole, H: 279
- <sup>118</sup> *Op cit*: Beaglehole, H: 63.
- <sup>119</sup> *Op cit*: Beaglehole, H: 279.
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