The Carrarang Station Lifeboat relic of the HMAS Sydney-Kormoran Engagement November 1941

Mike McCarthy
Maritime Archaeology Department
W.A.Maritime Museum
Cliff Street Fremantle

With comments from Dr I.D. MacLeod, Corrosion Specialist and Head, Department of Material Conservation and Restoration, W.A. Maritime Museum, and Mr. B. Manera, Travelling Curator, Local Museum's Programme, W.A. Museum.

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Background :
Recently, the Denham Shire Council requested the W.A. Maritime Museum to comment on the feasibility of removing the remains of a steel lifeboat once called *'The Yank'* from the intertidal zone at the 'Eastern Landing' on Carrarang Station in Shark Bay.
The lifeboat was reputed to have originated form the well known German raider *Kormoran* and was thought to have been used to transport survivors from that vessel after an engagement in November 1941 with the ill-fated *HMAS Sydney* which disappeared without trace. After having served its chief purpose it was then apparently sold and ended its days as a transport between Carrarang Station and Denham in Shark Bay.

Clearly, if the lifeboat had originated from the *Kormoran,* it could be shown to have significance as one of the few remaining tangible reminders of the engagement which resulted in the loss of the *HMAS Sydney* and its entire complement. The loss of the vessel with all hands deeply shocked Australia and the circumstances surrounding the loss have been the source of sometimes acrimonious debate continuing to the present day. If it could be shown, without doubt, that the lifeboat emanated from the *Kormoran* it would serve as a poignant memorial to the men who served in both vessels.
Though aware of the possible significance of the relic, the W.A. Museum has been unable to exercise any actual claim over it under the terms of the two pieces of legislation under which it (the Museum) operates, i.e the Maritime Archaeology Act (1973) and the Historic Shipwrecks Act (1976). Neither Act contains indisputable provision for such privately owned material in State Waters such as the Carrarang Lifeboat. Further, as the wreck has a clear chain of ownership through the proprietors of Carrarang Station, the Museum and any other interested party is not in a position to acquire it unless it is abandoned by the owner.

As a prelude to this report, the views of Mr W. Clough, the proprietor of Carrarang Station were sought and he expressed the wish that the boat be removed, conserved and transported to a suitable place as a memorial to those involved.
Given that expressed desire on the part of the owner and the willingness of the Denham Shire Council to remove, transport and display the remains, it remained to examine whether the boat was actually from the *Kormoran,* whether it is in a fit state to be moved in accordance with the owner's wishes, to ascertain what conservation treatment is required and what sort of facility should be provided for its display.

Those issues are addressed below and are followed by a number of appendices. A more detailed report based on research still underway will be made at a later date. This interim report is designed to outline the conclusions reached and to form the basis for discussion on the future of the relic and its proper management.

Position of the Wreck :
In the intertidal zone on the eastern side of Cararang Peninsula, Shark Bay, at GL 555751, Peron 1:1000,000, 1645.

Directions :
Take the track North from the Carrarang Homestead, through a fence line to a windmill and tank 5 kilometres up from the homestead itself. Turn right along the fence and proceed along the north side of the fence to the eastern shore of the Cararang Peninsula. The remains lie in the intertidal zone in the bay at the end of the track and are clearly visible at low water.

Description of the Site:
The wreck lies beam on to the sea in the intertidal zone and when we viewed at 1300 on 12 February 1990 was completely dry and accessible on all sides by foot and if necessary by a wide tracked vehicle.

The wreck measures 8.85 metres long, by 2.4 metres broad at amidships with some loose wreckage lying outside of the wreck itself on the port side and at the stern. Despite this, little remains of the vessel above the turn of the bilge, except the stem and stern posts, two lifting hooks and a section of port gunwhale. A number of 'test' trenches were dug in locations around the vessel in order for corrosion specialist, Dr MacLeod to conduct the corrosion study appearing in Appendix 1 and in order to ascertain the extent of the remains and their integrity.

The stern post, the highest projection on the site, measured 1.55 metres above the sand. Frames are visible in the bilge stretching from the keel to the turn of the bilge in some areas, though in others they are non-existent, The hull plating and the remainder of the boat has corroded either completely or

appears as virtually hollow concretion containing little or no residual metal at all. In almost all areas the remains are not expected to extend much beyond 50 centimetres either side of the keel, if that. Despite this, the keel, stem and stern posts and the two lifting hooks at the bow and stern appear to be solid and are most striking and poignant reminders of the vessels' original purpose.

From our excavations and examination of the remains it appears that the frames are in such a varied state of preservation that little can be expected of them, or the hull, except a series of short projections from the keel indicating where they once were. After the proposed excavation and after cleaning and conservation, it is expected that all that will remain of the boat are the lifting hooks, stem and stern post, and keel stretching the vessel's full length of 8.85 metres. Without any transverse strength, the remains will be extremely fragile and very difficult to transport despite the ease with which they could be excavated.

As indicated, it is clear that the wreck could be easily excavated, while dry, by a team of labourers armed with shovels assisted with a backhoe operated by a careful and skilled operator. The problem is more one of safe transport, adequate conservation and housing in a stable and publicly suitable environment.

Identification of the Boat :

Five Lifeboats are known to have got away from the German Raider *Kormoran*.

1 *Kormoran*'s port 'cutter', equipped with sails, under the command of CPO P. Kohn and with 43 men on board came ashore north of Carnarvon at the 17 mile well and was abandoned by the authorities who also prevented the owner of Quobba station from recovering the craft. It is reputed to have disintegrated or to have been blown out to sea and sunk.

2 One of two (presumably similar) steel lifeboats manhandled out of the foreward hold of the *Kormoran* and literally thrown overboard in the absence of power to the raiders hoists and were slightly damaged in the event. The boats filled with water but were kept afloat by their air tanks. After being bailed clear, this boat set off under the command of H. Meyer and included in its complement 57 men including Kapt. Lt. R. Von Malapert who kept complete diary of the time spent in the boat. They initially met up with the Bunjes/ Von Gosseln boat and then made way independently under sail and oars initially with the aid of a SSE wind. Four days later under a strong SW wind they dropped the sails and put out a sea anchor. Later under the influence of firstly SE and later SW winds they were heading NE and sighted the Australian coast at 1800 on the 24 th. At 0830 on the following day they landed at Red Bluff North of Carnarvon. *HMAS Gunbar* was later sent to recover one or both of these two vessels from the beach north of Carnarvon, but succeeded only in recovering this one. It was later put on-board *Charon* for Fremantle. The boat was recorded as being a brown colour and had a foresail and mainsail.

3 The other lifeboat recovered from the hold of the *Kormoran* and the last to leave the vessel was that containing 62 men including T. A. Detmers Commander of the *Kormoran*. They were found at sea by the *Centaur* and, being unwilling to risk his ship and passengers at the hands of a numerically superior force, the captain refused to allow the healthy occupants of the boat aboard and took them in tow. The boat suddenly filled with water a few hours into the tow.The *Centaur* lowered two of its lifeboats to accommodate the men and after taking their boat on-board proceeded for Carnarvon with the Germans in tow.

4 A workboat assigned to the *Kormoran* from its supply vessel the *Kulmerland*. This boat was normally powered by a pedal apparatus, but according to the Germans it had been removed, along with its propeller and shaft for overhaul prior to the engagement with the HMAS *Sydney*. As a result it had an unplugged 8 centimetre propeller shaft which caused considerable problems to the survivors who climbed on-board after the engagement. on board. The boat was originally under the command of Bunjes and later Von Gosseln. When located by aircraft they were out of fresh water and in a bad condition. The *Yandra* was directed to the location of the buff coloured double ended boat by aircraft and it towed the boat to Carnarvon after experiencing considerable difficulties with the tow. The boat contained 70 Germans and 2 Chinese when it was picked up.

5 The boat from one of the *Kormoran*'s victims the near new Greek freighter *Nicolaos D.L.* It was successfully launched but had overturned soon after the engagement losing its sail, stores and water. It had 31 men on board and was recovered at sea by *Koolinda* which took the boat on-board. Its whereabouts are unknown, though it is believed to have carried the name of the Greek vessel.

There is considerable confusion as to the fate of all of the *Kormoran* lifeboats. Of importance here is the possible identification of the vessel at Carrarang as one of the *Kormoran* boats and if so which one.

Positive identification of the Carrarang boat as one of the *Kormoran* lifeboats has been made in the following manner.

A Mr Geoff Baker of Mosman Park successfully tendered for two boats from the *Kormoran* on 8 May 1946. Before that time the vessels had been in the possession of the Marine Branch Department of Navigation and were in use by sea scouts stationed at Point Walter. Mr Baker was unable to tender for the best of the boats and was forced to apply for both. Being the sole tenderer he was successful and used them both for a brief period after the war. In describing them recently, he stated that they were identical and were painted grey, with a beam of 28 feet (8.53m.) and a breadth of 9 feet (2.74m.). They were of one single galvanized pressing rivetted to the keel with tanks full length along each side each with removable lids and which doubled as seating. There was no provision for an engine, they had no rudder, but there was provision for a mast. This is clearly visible in the photographs Mr Baker has supplied. Copies of these will be forwarded on to the Denham Shire. The hulls had both sustained some damage with one vessel having less wear than the other.

Having only wanted one of the boats, but being forced to tender for both, Mr Baker quickly sold the poorer of the two in exchange for a piano and £20.The owner of that vessel had it fitted with an engine and later lost it on the beach at Bunbury, through lack of fuel, and being a total wreck it soon disappeared into the sands.

Mr Baker fitted an engine into the other vessel and used it for a short while on the river. Almost two years after it was purchased, Mr Baker sold the boat to the *Blue Fin* fishing consortium, a group of returned servicemen who were retrained after the war and sailed the *Blue Fin* from the Eastern states to Fremantle. They were then moored at the Canning Bridge and later went North to Shark Bay. After fishing for a while they experienced financial difficulties and returned south with the lifeboat where Mr Baker saw the vessel for the last time at the Perth Wharf fitted with a diesel engine.

Mr G.W. (Mick) Spry indicated in his book and in a recent interview that the well known Shark, Bay identity Joe Spavin who then owned Carrarang Station wanted the boat due to its shallow draft and obvious advantages in a place like Shark Bay. Unfortunately he had an altercation with the owners of the *Blue Fin* and they refused to sell the vessel to him. Mr Spry then acted as an intermediary for Spavin, paid the required £5 deposit and the vessel was later sailed to Shark Bay and Carrarang Station where it became known as the *Yank* and was used to transport wool and supplies from the eastern landing to Denham.

Eventually the vessel became too rotten for further use and sank at its present location.

On this basis the identification of the boat as originating from the *Kormoran* appears beyond doubt. One serious problem has arisen however. The Carrarang boat clearly has two lifting hooks while Mr Baker thought that his boats did not have them and they do not appear clearly delineated in the photographs he has supplied. Clearly this is an area for further investigation and this will be pursued.

The question which of the five lifeboats is the Carrarang boat is equally vexing. The clue lies in Mr Baker's statement that the two *Kormoran* lifeboats that he purchased were identical in all respects and the fact that all indications are that the two lifeboats recovered from *Kormoran*'s forward hold were steel. Another factor is that Mr Baker's boat had no provision for a stem tube and he was forced to construct one from 2 inch water pipe before he fitted an engine to the vessel. Thus the *Kulmerland* workboat (4) can be eliminated. As can the *Kormoran*'s port cutter (1), if the stories that it disintegrated at the 17 mile North of Carnarvon are true. The *Nicolaos D.L.* Boat (5) can also be eliminated on the basis that it is unlikely to have been identical with any others on-board the *Kormoran*.

Thus, the evidence suggests that the Carrarang lifeboat is one of those two 'steel' boats from the forward hold of *Kormoran*, either that which landed at Red Bluff containing the diarist Von

Malapert, List and others or that which contained the *Kormoran*'s commander T.A. Detmers. Boats 2 & 3.

If this hypothesis is sustainable, then as an historical artefact the Carrarang boat thus becomes doubly of value, but at this stage the identification must be considered tentative and further work and research needs to be conducted. What appears indisputable at this stage is that the Carrarang boat is from the *Kormoran*.

As indicated further research is being conducted on the matter and a full report will be made in due course.

Conclusion :

From the evidence presented above and the ensuing discussion, it is clear that if possible the Carrarang Boat should be in some way preserved as one of the most tangible reminders of the *HMAS Sydney* and its crew and of the German Raider *Kormoran* and its complement.

A reading of Dr MacLeod's analysis and that or Mr Manera, the W.A. Museum's travelling Curator (who attended the inspection in his own time, such is his interest in the vessel) indicates that they agree in this assessment.

What is required however, is a controlled excavation, the stropping, shoring up and lifting of the remains transport on a flat topped barge or raft capable of negotiating or being towed through the shallow waters of the Eastern Landing and conservation of the structure before display.

Dr MacLeod has addressed the conservation issues in his report and these should be fully endorsed before any move is made to recover the wreck.

Mr Manera has addressed the display issue and both Dr MacLeod and I are in total agreement with him that the remains cannot be allowed to lay outside.

This may cause some amazement amongst those aware that the boat has lain in just such a position for the last twenty years or more, but it must be noted that the wreck will last far longer where it is, left alone, than if it were transported, conserved and allowed back into the outside environment. The wreck is supported by the sand, is often buried and is reasonably stable. Anything done to alter that must result in greater stability and a longer life for the relic.

Like the *Denham*- HMS *Herald* stone now on display in the Pioneer Park at Denham, it is our belief that the Carrarang Lifeboat must be properly conserved and displayed in a suitable indoor location in order to prevent further deterioration of the remains and yet maximise the public returns for the shire's efforts on behalf of the Shark Bay region and the State of Western Australia in general in recovering the object.

As the lifeboat remains are long but quite thin, it is my belief that they could be satisfactorily mounted on or along a display wall in an existing or yet to be established public building.

Denham and Shark Bay have a very rich history, a growing tourist trade and an awareness of the value of historical buildings and relics to the tourist industry and to the region. Perhaps it is now the time to explore the housing of this historic relic with the Denham-Herald Stone and the pearling/fishing boats now in the process of restoration in a suitable public building.

APPENDIX 1

Report on inspection of steel lifeboat, Carrarang Station, Shark Bay (12 February 1990) Dr. I.D. MacLeod, Corrosion Chemist and Head Department of Materials Conservation, W.A. Maritime Museum.

The present

The remains of the lifeboat were initially inspected on the edge of the shoreline during low water and corrosion measurements were carried out during rise of the incoming tide which covered the remains, apart from the protruding davit hooks. The hull plates are covered with a 5-8 mm layer of magnetite (Fe_3O_4), silica and a calcareous cement. The surface pH of the corroding metal underneath the concretion had a value of 6.0 compared with the value of 8.15 for the sea-water immediately adjacent to the wreck. The difference of 2.15 pH units means that the metal is in a micro-environment that is 140 times more acidic than the sea. The marine concretion protects the metal from the worst ravages of the environment.

The apparent thickness of the davit hooks is 33 mm with a nominal original thickness of approx. 14 mm, the increased volume is due to extensive corrosion since these members are not immersed in the wet sand to enable a protective concretion to be formed as was the case of the remaining sections of the vessel. Because of the exposed-buried environment of the remains the metal is subject to all the problems of corrosion due to differential aeration.

The separated hatch cover had no solid metal in it, at the point of measurement, and it had correspondingly high redox potential of -0.160 volts vs the Standard Hydrogen Electrode (SNE). The original thickness was approx. 5 mm. The corrosion potentials of the lifeboat remains were measured at the stern plates, the aft davit hook below the sand line, the starboard plates aft of midships, the port plates forward of midships and at the forward davit hook. The mean value of Ecorr was -0.334± 0.003 volts vs NHE which with the pH value of 6.0 indicates that although the iron is corroding it is in a relatively reducing environment. In simple terms, the exposed hooks have been partially protecting the buried sections from corrosion.

If the Ecorr value relates primarily to the equilibrium between ferrous (Fe^{2+}) ions and the black iron oxide magnetite (Fe_3O_4),

$$3\,Fe^{2+} + 4\,H_2O \quad Fe_3O_4 + 8H^+ + 2e^-$$

then we can calculate that the equilibrium concentration of Fe^{2+} is 8.6×10^{-2}M or approx. 4.8 grams per litre.

Gas bubbles were observed when the drill bit penetrated the concreted hull plates and our corrosion potential data indicates a partial pressure of 0.43 atmospheres of hydrogen. On the basis of our past experience with marine iron, this value is not unexpected and confirms the reducing nature of the micro-environment of the buried hull.

The future

The metal underneath the corrosion layers on the hull plates still shows vestiges of the red lead undercoat. The metal remaining on the stern post and forward davit retain part of their original bituminous paint layers. The whole structure is severely weakened as a result of nearly 45 years of corrosion in a highly saline environment.

In order to stabilize the remaining metal of the boat, if removed to a suitable location, it would need to be carefully cleaned (by hand and mechanical means) and washed in a treatment bath to begin the slow process of removing the chloride ions which accelerate and exacerbate the corrosion problems.

Two possible treatment programmes are outlined below.

Case I: The lifeboat is cleaned, by gentle water blasting, of gross sandy deposits and placed on an insulated support (e.g. old tyres) in a tank containing 20g/litre of sodium hydroxide. Connection of a cable from the negative terminal of a DC power source (0-50 amps, 0.5-4.5 volts) provides a means of assisting chloride removal whilst preventing any further corrosion. The anodes can be made of sheet steel and the remains must be completely immersed in the treatment tank.

The treatment solution is regularly monitored for Cl^- ions and when the level has 'plateaued' the solution is changed to fresh 0.5 M NaOH (20g/l). This process is repeated until no more chloride can be removed. the artefact is then cleaned down again, dried, coated with protective finishes and then

finally placed on display in a purpose built building which provides protection from the ravages of the external environment. **Total treatment time, approx. 2 years.**

Case II: Instead of using caustic solutions the 'electrolysis' can be carried out in a sodium carbonate solution (pH12) using an aluminium alloy anode as the power source. Treatment times would probably be 3-6 months longer than for **CASE I** but the same methodologics would need to be followed.

Cost: The cost of treatment will depend on the availability of a container in which to effect the conservation measures outlined above. An aluminium alloy anode would cost approx. $280, chloride analyses (30 samples x $15) = $450, caustic soda approx. $300, rain water ($n.a. if available on site). Provided no wages are included, the overall conservation cost would be of the order $1200 which would include some coating materials; the cost of a purpose built treatment tank is not included in this estimate. An above ground pool could be used as a treatment tank for the Case 11 scenario but not Case I as the caustic splash would dissolve the aluminium supporting frame.

Though Denham is a logical place in which to conserve the artefact, conservation of this historically significant lifeboat will require expertise that is probably not available within the Shark Bay region. Because of the fragile nature of the remains it is essential that great care is taken so as to avoid further and accidental damage. In the costing of the programme it would be wise to include two return airfares to Denham from Perth and to allow for accommodation costs for two ten day periods and two short visits when a visiting conservator could initiate, monitor and finalise the treatment programme. It is also essential that the treatment take place in an area that makes it impossible for children and the general public to come in contact with the corrosive chemicals in the treatment tank.

I believe that the remains are most significant and that they can, and should be preserved.

Dr Ian D. MacLeod
Head, Materials Conservation

APPENDIX 2

Recovery of Carrarang Lifeboat Relic

The significance of the HMAS *Sydney/Kormoran* tragedy cannot be overstated, but to attempt to use the remains of the lifeboat found on Carrarang Station to tell this story presents major problems.

This relic is in such a deteriorated state that to use it to tell the story of one of the nations worst maritime disasters would require a level of expenditure on display furniture, photographs, graphics, text and research that any museum would find prohibitive. Even if the cost of conserving the remains of the lifeboat then using them to mount an adequate display could be met the Pioneer Park, Denham, is not a suitable venue.

The Pioneer Park is a poor display environment. A delicate object would deteriorate in such a situation. The Pioneer Park is not closely supervised or monitored. There is a high risk of possible damage to the artefact from the public or damage to the public from this rusty and jagged artefact. To leave a potentially dangerous relic like this in an unattended, shire owned park may place an unacceptable strain on the council's public liability insurance.

The Shire Council should be encouraged to tell the *Sydney/Kormoran* story but to display the remains of a lifeboat in Pioneer Park is not the recommended way to do this. A better solution would be the creation of an environmentally safe museum with the appropriate supporting display in this attended and monitored venue. An alternative could be to leave the relic in its present site as this is its most historically relevant situation. Its relative isolation means that only those with a genuine interest will seek out the location.

I hope that these ideas can make some contribution to the assessment of the proposed fate of the remains of the lifeboat studied by yourself, Dr Ian MacLeod (Conservation Department) and I. My conclusion is that the relic is either conserved and relocated to an adequate museum facility or left in situation to rust in peace.

Brad Manera
Travelling Curator
Local Museums Programme
Western Australian Museum

Notes on Pioneer Park, Denham, Shark Bay

During a recent field trip (10-14 February 1990) we inspected historical artefacts on open display in the region. It was very gratifying to see the care being taken of boats and other material in the park and this is further indication of the growing awareness of the rich and varied history of the region. Because boats on dry land need extra support to compensate for the normal hydraulic pressures exerted by the water when afloat, however, it is a prudent procedure to provide a cradle-type structure to give both longitudinal and lateral support to the vessel. This has been shown to be superior to supports under the keel and gunwhale where during our own period of learning these were shown to eventually add to the damage and to serve to warp the vessel. The best display is one which emulates the in-water environment and we have found a cradle like structure, though clearly not the ideal, is relatively inexpensive, adjustable and helps hold the shape of the vessel yet does not detract from its appearance. Similar supports can be viewed here at the Maritime Museum's 'B' Shed display. Should a member (s) of the preservation group in Denham be interested in viewing these or in discussing the methods used by us and others engaged in preservation of historic boats, we would be delighted to assist.

Because of the historical significance of the 'Denham' rock it is essential that it be given the best chance of survival. The current location is very exposed however and will enhance the normal weathering of the incised surface. It is suggested that immediate steps be taken to house this object under cover, preferably inside, free from the ravages of the weather and potential human damage.