

Draft

Review of the 1993 Plan of Management for HMS *Sirius* Shipwreck

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1 Executive Summary

1.1 Overview

The wreck of HMS *Sirius*, principal consort to the First Fleet and protector of the infant New South Wales colony, lies on a shallow reef beneath the breakers, close to the original settlement at Kingston, Norfolk Island.



Fig. 1. Kingston, showing *Sirius* wreck location and Sirius Museum. Image NIM

The main wreck deposit was located during a series of investigations arranged by the Australian Bicentennial Authority (ABA) during the 1980s. A draft management plan was prepared during the 1988 *Sirius* expedition and with minor amendments was adopted by the Commonwealth and the Norfolk Island Government as the 1990 'Plan of Management HMS *Sirius*'. The 'Plan of Management HMS *Sirius*' (the 1993 Plan), was adopted with minor amendments in 1993.

In 1988 the Norfolk Island Government developed the Sirius Museum at Kingston, and research on the *Sirius* wreck and its place in Australian history is ongoing. The findings of this review of the 1993 Plan are intended for implementation during the period 2018-2022.

The Sirius Museum is housed in the Old Protestant Chapel building, within the Kingston and Arthur's Vale Historic Area (KAVHA) boundaries. Governance arrangements for Norfolk Island underwent major changes as of 1 July 2016. This resulted in Norfolk Island transitioning from self-government operating with a Legislative Assembly to an Australian

External Territory operating with a Norfolk Island Regional Council (NIRC). Janelle Blucher, Team Leader Heritage Management (reporting to the General Manager NIRC and supported by 2.5 permanent employees and a team of casuals) has responsibility for the functions of the Norfolk Island Museum (NIM), operating out of four heritage buildings including the Sirius Museum exhibition, collection and wreck site, the Pier Store, the Commissariat Store, No. 10 Quality Row, the R.E.O. shop and information centre, the Research Centre, and the Norfolk Island Public Library. In August 2015 the Commonwealth Heritage Manager became the Manager of KAVHA operating with a NIRC works team whose services are available through a service delivery agreement between the Commonwealth and NIRC.

1.2 Summary statement of significance

The Australian Heritage Database reads as follows:

The archaeological remains of HMS *Sirius* represent a tangible link to the most significant vessel associated with early migration of European people to Australia. HMS *Sirius* was guardian of the first fleet during its epic voyage to Australia between 1787 and 1788, which brought the convicts, soldiers and sailors who became Australia's first permanent European settlers. HMS *Sirius* was also the mainstay of early colonial defence in New South Wales and the primary supply and communications link with Great Britain during the first two years of the settlement.

The careers of the first three governors of the colony of New South Wales, Arthur Phillip (1788-1792), John Hunter (1795-1800) and Philip Gidley King (1800-1806) are closely associated with the history of HMS *Sirius* as all three sailed as senior officers on board HMS *Sirius* during the voyage of the first fleet to New South Wales. Hunter was also Captain of HMS *Sirius* during its last ill-fated voyage in 1790, when it was totally wrecked at Norfolk Island.

The loss of HMS *Sirius* at Norfolk Island on 19 March 1790 was a disaster to the fledgling colony during a period of crisis, when the settlement at Port Jackson was in danger of collapse and abandonment. It can be argued that the adaptability, ingenuity and grim determination to survive, demonstrated by the colonists at Port Jackson and Norfolk Island following this disaster, became an enduring trait of the Australian people.

The archaeological investigations of the shipwreck site of HMS *Sirius* have demonstrated its significant archaeological potential for research into the cultural heritage of the early European settlement of Australia. The remaining fabric of HMS *Sirius* and associated artefact assemblages represents a 'time capsule' of cultural life from the period leading up to its shipwreck in 1790.

The important role played by HMS *Sirius* in the European phase of Australian settlement is widely recognised within the Australian community and is especially significant to the descendants of the first European settlers or ‘first fleeters’ as they are often described. This importance was highlighted with the selection of HMS *Sirius* as a significant archaeological project to celebrate the Australian Bicentenary in 1988.

The history and archaeological remains of the HMS *Sirius* are also highly valued by the people of Norfolk Island as the vessel represents a significant phase in the peopling of the Island and its development as a place of secondary punishment of convicts transported to Australia.

1.3 Principal findings and key recommendations

The HMS *Sirius* wreck site and the artefact collection related to the site are of such significance that they must be protected at all cost. Section 324W of the EPBC Act requires that at least once in every 5 years the minister must cause a review of the *Sirius* Management Plan to be carried out, assessing whether the current plan is consistent with National Heritage management principles, assessing whether the plan is effective, and making recommendations for the values of the place. During the 25 years since the adoption of the 1993 Plan the Norfolk Island and Commonwealth governments have put into effect most of the measures listed in the 1993 Plan’s implementation plan. Some of the heritage values of the place have been considerably enhanced during that period. This revised management plan (the 2018 Plan), building upon the progress of the past 25 years, and including updated requirements of the Commonwealth Government, is intended to further enhance the heritage values of the place.

1.31 National and Commonwealth heritage management principles

(<http://www.environment.gov.au/system/files/resources/c7817f92-4490-49b2-a02a-845b7f1f2ef3/files/mgt-principles.pdf>) as they apply to HMS *Sirius*

1. The Team Leader Heritage Management, NIRC (the Manager and Minister’s Delegate) will implement the objectives established in the 2018 Plan for identification, protection, conservation, presentation and transmission, to all generations, of the National and Commonwealth heritage values of the HMS *Sirius* wreck.
2. The Manager will use the best available knowledge, skills and standards for HMS *Sirius*, and include ongoing technical and community input to decisions and actions that may have a significant impact on its National and Commonwealth heritage values.
3. The Manager will respect all heritage values of HMS *Sirius* and seek to integrate, where appropriate, any National and Commonwealth, Territory and Local Government responsibilities for the place.

4. The Manager will ensure that the use and presentation of HMS *Sirius* is consistent with the conservation of its National and Commonwealth heritage values.

5. The Manager will make timely and appropriate provision for community involvement, especially by people who:

- i) have a particular interest in, or association with, the place; and
- ii) may be affected by the management of the place.

6. Indigenous people are the primary source of information on the value of their heritage and the active participation of Indigenous people in identification, assessment and management is integral to the effective protection of Indigenous heritage values. As a first step the Manager will arrange with the Commonwealth for the writing, production and distribution of a publication specifically dealing with the hatchet head found on the *Sirius* wreck site.

7. The Manager will provide for regular monitoring, review and reporting on the conservation of the National and Commonwealth heritage values of the HMS *Sirius* wreck site and associated artefact assemblages. This will be done in accord with the schedule in Appendix 9.1.

1.32 HMS *Sirius* wreck site management

1. The wreck site is located entirely underwater, but nevertheless has a monumental aspect. The ballast mound constitutes the principal monumental aspect and the Manager will ensure that it be left without disturbance on the seabed.

2. The visible elements of the site (the iron ballast and anchors) are highly susceptible to damage from natural forces. However, the main wreck site has not been formally inspected by a professional maritime archaeologist or conservator since 1993. Arrangements will be made by the Manager a maritime archaeologist and a conservator familiar with the site to visit the island during 2019/20 to attach protective anodes on the ferrous objects on site, with a view to reducing the corrosion rate underwater in perpetuity. The visit will also be used to provide the Commonwealth with a condition report on the wreck site and to train Norfolk Island Maritime Archaeology Association members in the selecting, attaching and monitoring of anodes.

1.33 Collection management

1. The exhibited *Sirius* wreck artefacts are at risk in their present location in an aggressive environment. The Commonwealth will seek to ensure that the *Sirius* Museum is provided with a controlled microenvironment, in the form of temperature and humidity controlled salt-free display cabinets and building interior. If it proves not feasible to protect the artefacts in the Protestant Chapel building through temperature and humidity control of the

environment, exploration will be made of the alternatives, including a purpose-built 'green' facility (Henry 2007).

1.34 Research

The Manager has the responsibility for research resource allocation

2 Introduction

Strong Australian community interest in shipwrecks as underwater cultural heritage developed in 1963 with the discovery and initial plundering of the Dutch shipwrecks *Vergulde Draeck* (1656) and *Batavia* (1629). Concerted press agitation and interest by the Western Australian Government led to the passing of protective State legislation. The Western Australian Museum's (WAM) fieldwork programs and exhibitions convinced the diving population of the benefits of regarding historic shipwrecks as a cultural heritage resource.

A challenge to the validity of the State legislation led to the passing by the Commonwealth of the *Historic Shipwrecks Act 1976* (HSA), providing protection for all shipwrecks over 75 years old in Australian territorial waters and stimulating immediate interest and, ultimately, action by all the other State Governments in developing underwater cultural heritage programs aimed at identification of the resource, inventory systems, significance assessment, rescue archaeology and education (Henderson 1987:113-127).

The HSA applies automatically in Territories administered by the Commonwealth Government, including Norfolk Island. In 1983, during the lead up to the 1988 Australian Bicentennial year, the ABA organised a project, led by Graeme Henderson (the consultant), to investigate at Norfolk Island the remains of HMS *Sirius*. The main site deposit was located for the first time and a series of investigative expeditions involving archaeologists from most Australian States resulted. The Norfolk Island Government developed the Sirius Museum as an interpretive centre for the resulting artefact collection.

2.1 Objectives of the Review of the 1993 Management Plan

This Review has been made possible by a Grant Agreement between the Commonwealth represented by the Department of the Environment and Energy (DoEE) and the NIRC (Grant Agreement - PNHSR3-22: HMS *Sirius* Shipwreck - review of the Management Plan). The Purpose of the agreement is to contribute to the 'Outcomes of the Protecting National Historic Sites 2016-17 Program', which are:

- improved conservation, preservation and access to Australia's National Heritage List (NHL) places recognised for their historic heritage values.
- improved engagement with these places, and improved awareness of the values the places were listed for.

The 1993 Plan was agreed to by the Minister for the Arts and Administrative Services, representing the Commonwealth Government, and the Minister for Immigration and Lands, representing the Norfolk Island Government, on 8 September 1993. A 'Review of HMS *Sirius* Management Plan' was prepared by Myra Stanbury and Ian MacLeod of the WAM in 1996,

but was not adopted by the Commonwealth. Further proposals for changes and updating of the 1993 Plan were made in 1997, 1999 and 2002, but were either not completed or not adopted by the Commonwealth.

This project is a review activity and an updating of the existing 1993 Plan. This reviewed plan (the 2018 Plan) incorporates elements of the 1993 Plan, and addresses the requirements of the *Environmental Protection and Biodiversity Conservation Regulations 2000* (EPBC Regulations) Schedule 5A – Management Plans for National Heritage places (regulation 10.01C) of the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act).

The objectives of this 2018 Plan are to:

- i) Identify, protect, conserve, present and transmit to all generations the Commonwealth and National heritage values of the wreck of HMS *Sirius* at Kingston, Norfolk Island, together with the collection of recovered artefacts and records relating to the site.
- ii) Provide a management framework that includes reference to the statutory requirements of the EPBC Act, the EPBC Regulations, the HSA, and guidelines provided in the Australia ICOMOS 2013 *Charter for Places of Cultural Significance (Burra Charter)*, and the UNESCO 2001 *Convention on the Protection of the Underwater Cultural Heritage*.

2.2 Description of the area

The special *Commonwealth of Australia Gazette S168* of 25 October 2011, listing the inclusion of HMS *Sirius* Shipwreck in the NHL, reads:

The primary shipwreck site of HMS *Sirius* is located East of Kingston Pier in Slaughter Bay, Norfolk Island, at a point centred on latitude 29 degrees, 3 minutes and 37 seconds South and longitude 167 degrees, 57 minutes and 18 seconds East. The boundary encompasses the primary shipwreck site and other identified archaeological deposits associated with HMS *Sirius* within Slaughter Bay. These sites are contained within and bounded by an imaginary line;

- (i) the commencement point being the Southeast corner of Kingston Pier at latitude 29 degrees, 3 minutes and 30.63 seconds South and longitude 167 degrees, 57 minutes and 12.11 seconds East;
- (ii) thence East along the mean low water mark of the coast of Norfolk Island to a point where the parallel of latitude 29 degrees, 3 minutes and 34.03 seconds South intersects with the meridian of longitude 167 degrees, 57 minutes and 36.38 seconds East;
- (iii) thence West South West to a point where the parallel of latitude 29 degrees, 3 minutes and 42.36 seconds South intersects with the meridian of longitude 167 degrees, 57 minutes and 20.11 seconds East;
- (iv) thence West North West to a point where the parallel of latitude 29 degrees, 3 minutes and 39.27 seconds South intersects with the meridian of longitude 167

degrees, 57 minutes and 12.09 seconds East;

(v) thence North along the meridian of longitude 167 degrees, 57 minutes and 12.09 seconds East to the point of commencement.

Location plans and site plans

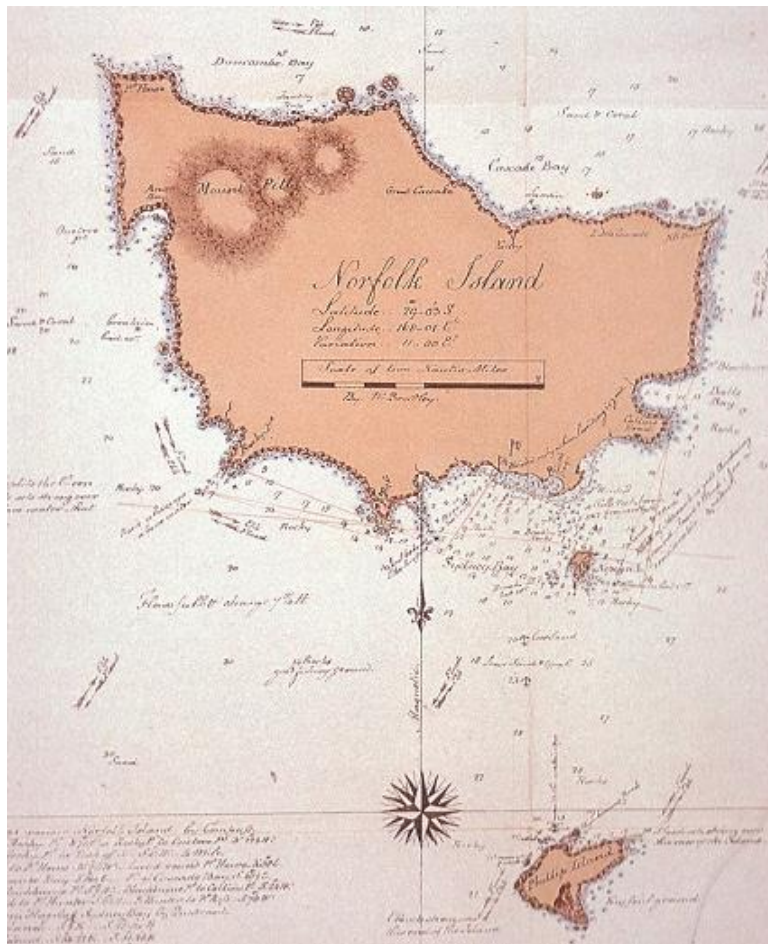


Fig. 2. Norfolk Island 1790, surveyed by William Bradley. Image Mitchell Library



Fig. 3. The wreck of HMS Sirius lies in Sydney Bay. Image NIM

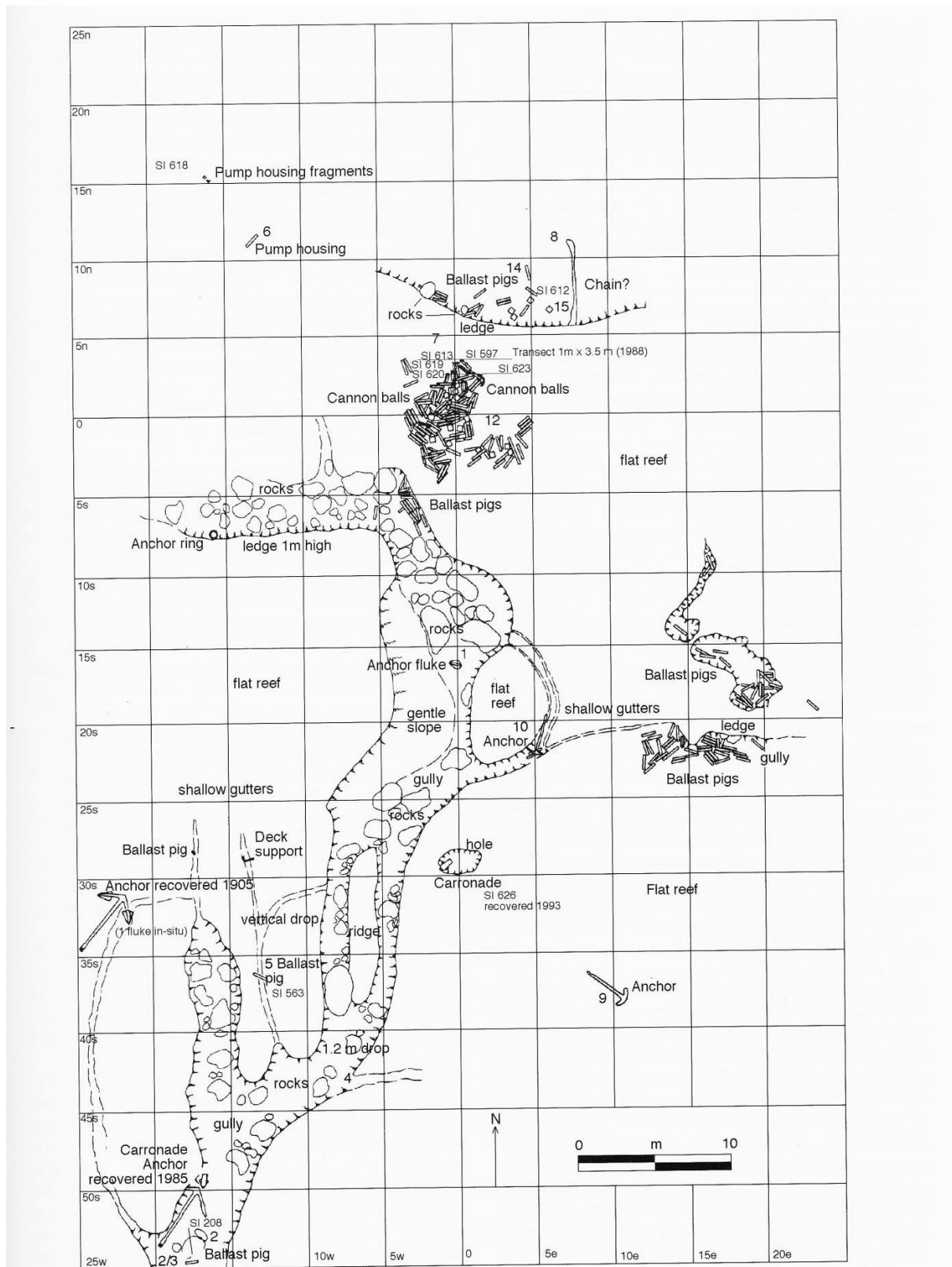


Fig. 4. *Sirius* site plan by W. Jeffery and M. Edmiston, from Henderson, 1989

2.3 Current heritage listings for the place

The HMS *Sirius* shipwreck is listed in:

- i) the Register of the HSA as required under Section 12,
- ii) the Commonwealth Heritage List (CHL), as appears in the Commonwealth of Australia *Special Gazette* No. S167, 25 October 2011, and
- iii) the NHL as appears in the Commonwealth of Australia *Special Gazette* No. S168, 25 October 2011.

2.4 Methodology employed by consultant in report preparation

This Review has been structured in line with the suggested content in the section 'Developing Management Plans' in the two website publications *Working Together: Managing National Heritage Places*, and *Working Together: Managing Commonwealth Heritage Places*. The plan has addressed the requirements of the NHL, the CHL, the EPBC Act, and the EPBC Regulations Schedule 7A. It has taken account of the Australian Heritage Council's website publication *Guidelines for Assessment of Places for the National Heritage List*, and followed the Australia ICOMOS *Burra Charter* (2013) principles: understanding cultural significance, developing policy and managing the place in accordance with the policy.

The consultant has drawn upon the content of the 1993 Plan, archaeological reports and publications (particularly those proceeding from the ABA's programme and the WAM's assistance), conservation plans, consultation with government and community stakeholders, and his own considerable experience with the place.

The consultant assembled and reviewed existing documents, carried out a field visit to Norfolk Island (which included a radio interview, an advertised community meeting and a brief schnorkel dive on the wreck site), analysed and reviewed the information together with the Manager, and produced this report.

2.5 Who was involved in preparing the 2018 revised management plan

The report was prepared by Graeme Henderson in consultation with Janelle Blucher. Henderson, a previous Director of Western Australian Maritime Museum (a branch of the WAM), is an Honorary Associate of the WAM and currently Chairman of the not-for-profit Wreck Check Inc.

2.6 Acknowledgements

This review of the 1993 Plan of Management *HMS Sirius* is supported through funding from the DoEE's 'Protecting National Historic Sites 2016-17' Program. Janelle Blucher funded and arranged the consultant's travel to Norfolk Island, facilitated meetings with relevant

stakeholders, fully briefed the consultant on the issues and gave every assistance in the preparation of the new 2018 Plan.

A number of individuals assisted with providing valuable comments and feedback during the review process including Patrick Baker, Andrew Hutchison, Theresa McCarthy, Ian MacLeod, Alex Moss, Brian Prince, Myra Stanbury, Marella Umbach and Andrew Viduka.

3 Historical Background

3.1 History of the place and its component parts

The Australian Heritage Database reads:

HMS *Sirius* and the First Fleet

HMS *Sirius* is one of Australia's most important shipwrecks because of its principal role in the foundation of the first British settlement in New South Wales. On 13 May 1787, a fleet of 11 ships, sailing with convicts, weighed anchor and left England's shores. The departure of the fleet, bound for Botany Bay on the east coast of Australia, attracted little public attention despite the magnitude of the venture. A decision by the British Government, in 1786, to establish a settlement in what was then a scarcely known region of the world and remote from the recognised trade routes of the period, marked the beginning of a new era in British colonial expansion.

The 511 ton, sixth rate naval frigate HMS *Sirius* was commissioned to lead the First Fleet under the command of Captain Arthur Phillip, with John Hunter as second captain. A former Navy transport of 170 tons, HMS *Supply*, was also chosen as an armed tender under the command of Lieutenant Henry Ball. Escorting a convoy of six transports and three store ships, the *Sirius* embarked upon the eight month voyage via Tenerife, Rio de Janeiro and the Cape of Good Hope, arriving at Botany Bay in January 1788. After exploring the neighbourhood of Port Jackson, Phillip chose Sydney Cove as the site for the new settlement. Within three weeks of arrival, on 15 February 1788, the *Supply* set sail for Norfolk Island, where Lieutenant Philip Gidley King had orders to establish a satellite colony. The *Sirius* was thus left as the main defence vessel for the New South Wales colony, its means of obtaining supplies and its communication link with the outside world.

Addressing food shortages in New South Wales colony

Although the contract for the First Fleet expedition provided for two years' supply of provisions, defective packing and bad stowage damaged a considerable quantity of the foodstuffs on the outward passage. By September 1788 the shortage of food and equipment at Sydney Cove was causing such concern that Phillip decided to send the *Sirius* to Cape Town to purchase additional stores, especially flour and medicines. Under the command of John Hunter, the *Sirius* sailed an easterly course with the

prevailing wind, surviving dangerous seas off Cape Horn and terrific storms off the east coast of Tasmania on the return voyage. On its return to Port Jackson on 9 May 1788 the ship was closely examined and spent the following four months undergoing repairs to storm damage and other defects.

Meanwhile, the situation at Sydney Cove was becoming critical as the settlement was failing in its attempts at self-sufficiency and fresh supplies had not arrived from Britain.

HMS *Guardian*, dispatched from England in September 1789, was to have re-supplied the colony, but never reached Australia. Soon after leaving Cape Town the ship struck an iceberg and was badly holed, eventually returning to port after jettisoning or losing much of its cargo. As soon as the *Sirius* was fit for sea, Governor Phillip made a crucial decision: to send both the *Sirius* and *Supply* to Norfolk Island with a substantial number of convicts and marines in an attempt to lessen the demand for scarce resources, and the *Sirius* would then proceed to China to purchase supplies.

Norfolk Island is an isolated volcanic outcrop in the South Pacific Ocean, lying 1,500 kilometres north-east of Port Jackson. Rising abruptly from the Norfolk Ridge, the island's coastline consists almost entirely of sheer surf lashed cliffs up to 90 metres high, and water depths drop off rapidly to more than 2000 metres. Not surprisingly, early European navigators found it a daunting experience to find a suitable landing place around the island. Even today Cascade Bay on the north-east side of the island and Sydney Bay in the south are the only two places where landing can be made with any degree of safety, given favourable weather and sea conditions. After a stormy passage, the *Sirius* and *Supply* arrived at Norfolk Island on 13 March 1790 and managed to send the marines and most of the convicts ashore at Cascade Bay before being forced out to sea by bad weather.

Wreck of the *Sirius*

When the gale moderated on 19 March they attempted to enter Sydney Bay opposite the main settlement. The master of *Supply* was familiar with the conditions and had already landed his portion of the provisions when the *Sirius* approached. On shore, the raised signal flag still indicated that longboats could be launched without danger. But by the time the boats from the *Sirius* were in the water and loaded with stores, the ship had begun to drift rapidly shoreward. Acknowledging a warning from Lieutenant Ball of the *Supply*, Hunter set sail in the smaller vessel's wake, but an unfortunate wind shift prevented the ships from weathering the western end of the bay. The *Supply* managed to tack and headed out to sea, but the *Sirius* remained embayed, and the onshore wind and current made it impossible for the ship to avoid a reef lying a hundred metres from shore. Unable to tack against the prevailing wind, the *Sirius* was thrown backward on to the reef and in less than ten minutes the hull was stove in.

An anchor was let go to steady the ship, and Captain Hunter ordered the masts cut away as the heavy surf rolled in. Although some of the men had to stay on board the *Sirius* overnight, the crew and remaining passengers were rescued by means of a travelling block and hauling lines rigged from the wreck to a pine tree on shore and aided by the ship's boats. Over the ensuing weeks, provisions, livestock, equipment and other goods were salvaged from the wreck with the assistance of convict labour, but this did little to relieve the hardships of the survivors. To ensure peace and good order on Norfolk Island, the lieutenant governor declared martial law and ordered half allowance of provisions. The loss of the *Sirius* left the settlers at Norfolk Island and Sydney Cove feeling utterly devastated and close to panic. They had considered the *Sirius* their insurance against starvation and adversity, but now with only one seaworthy ship left, plans for re-supply from the Cape and communication with England were even more tenuous. The Sydney colonists had barely three months' worth of supplies remaining, even after their rations had been substantially reduced, and the people on Norfolk Island had hardly any provisions to feed them after the loss of *Sirius*.

The situation was not relieved until June 1790 when the store ships and convict transports of the Second Fleet from England arrived at Port Jackson and cargoes were obtained from such ports as Batavia and Calcutta. Captain Hunter along with the other officers and crew of the *Sirius* were forced to remain at Norfolk Island until February 1791, when they reached Port Jackson on board the *Supply*. Most of the officers and crew returned to England in April 1792 on the Dutch vessel *Waaksamheid*, minus a few men who had remained in the colony. The following month a court martial was held on board HMS *Brunswick* to try the officers for the loss of the *Sirius*. All were honourably acquitted when it was found that everything was done that could be done, to save the ship.

3.2 History of the establishment of the place to the present day

The Australian Heritage Database reads:

The archaeology of HMS *Sirius*

The approximate location of the *Sirius* wreck had always been known, as the hull did not entirely disappear for almost two years after it struck, and it was depicted on contemporary and later charts of Norfolk Island. An anchor remained visible on the site until 1905, when it was removed for permanent display at Macquarie Place in Sydney and another anchor was recovered in 1973, but generally the human disturbance of the site remained minimal. In 1982 ideas were being sought for projects to commemorate Australia's Bicentenary, and the *Sirius* shipwreck, with its First Fleet connection, appeared to be an ideal candidate. The archaeological investigation of the *Sirius* was an initiative of the Australian Government Department of Arts, Heritage and Environment, which was then responsible for the

administration of the Commonwealth *Historic Shipwrecks Act 1976*.

Documentary research and an initial inspection of the site in 1983 by staff from the Western Australian Museum provided sufficient background information for the project to proceed. Funding for the project was provided by the ABA and was supported by staff from a number of institutions around the country. The people of Norfolk Island have a strong association with the shipwreck of HMS *Sirius* and therefore support from the local government authority and suitable arrangements for the repatriation of conserved artefacts were critical for the success of the project.

The anticipated environmental conditions on the wreck were a major concern as the survival of any archaeological material was uncertain. Using the predictive model developed by British archaeologist Keith Muckelroy, the *Sirius* fell within the most difficult category of underwater site; possibly having no structural or organic remains and only a few scattered objects on the seabed. However, previous work in Western Australia on the Dutch East India Company shipwrecks, such as the *Batavia*, had shown that substantial archaeological materials could still remain on shallow water reef sites subjected to high energy wave action. With this site conditions in mind it was necessary to use experienced archaeological divers, as the exposed wreck location was hazardous in most sea conditions. The majority of survey and recording work was carried out with scuba diving equipment from small inflatable dive boats anchored seaward of the surf zone. With water depths of less than 4 metres, the underwater dive times were limited only by air supply and site conditions.

Three seasons of fieldwork during 1985, 1987 and 1988 demonstrated that the wreck site had greater archaeological potential than was initially anticipated. Excellent conditions for diving during the 1987 expedition gave access to areas of the reef normally prohibited by breaking surf. This allowed the site to be accurately surveyed and mapped over an area measuring 50 metres by 80 metres, and swim searches also located material outside this main deposition zone. The use of a magnetometer to detect iron, even while hidden in coral concretions, assisted with the survey of the inner lagoon area and the parts of the reef not directly affected by breaking waves. Because of the shallow depth of water and position of the wreck relatively close to shore, it was also possible to accurately link the underwater recording to known survey control points on land.

As the *Sirius* was extensively salvaged, it is perhaps surprising that some of the ship's navigational and scientific instruments were found, including a sextant, dividers and a brass pantograph for copying maps and charts. Very few ceramic or glass items were located due to the exposed nature of the site, but at least some bottle fragments appear to have been from the equipment of the ship's surgeon. Other material included equipment from the Marine contingent such as uniform buttons and belt plates, as well as musket parts and ammunition. One unexpected artefact found on the wreck was an edge ground stone hatchet head, made and used

by Indigenous Australians from around the Nepean River, West of Sydney. It has been suggested that this may be part of a collection of 'curiosities' made by one of the officers on board, similarly to the Polynesian objects found during the excavation of HMS *Pandora*.

A number of artefacts were recovered from concretions found on the reef, primarily consisting of a variety of metal fittings and equipment, including keel bolts, hull fastenings, sheathing, pump parts and rudder straps. The items connected to the fastening and sheathing of the timber hull were of particular interest as they are clear examples of the application and adaptation of new technology in naval vessels during the late 18th Century. By the time the *Sirius* was being fitted out for the voyage to Botany Bay, the Royal Navy had been experimenting with the use of copper sheathing as an antifouling device for more than twenty years. Due to the damaging galvanic reaction between the copper sheathing and the iron fastenings used to secure ship timbers, the Navy was also progressively introducing new types of copper alloy fastenings to its fleet.

It is known that the *Sirius* was originally constructed with iron fastenings, but copper alloy fastenings had been introduced during its First Fleet refit and possibly during repairs at Port Jackson in 1788. It was also recorded that the *Sirius* was carrying spare copper fastening bolts to be used experimentally for testing their durability under the copper sheathing *en route* from England. This is consistent with research and artefacts recovered from HMAV *Bounty* at Pitcairn Island. The bronze metal (copper and tin) used in ship fittings and fastenings from the period has a distinctive metallurgical composition, and this information was used to identify some artefact material raised from part of the site that was clearly from later shipwrecks in the area. Additionally, it was possible to distinguish two distinct batches of copper alloy sheathing used to protect the hull of the *Sirius* from the relative proportions of metals in samples tested from the site.

The project also recorded more than 200 of the cast iron ballast pigs originally located at the lowest point of the ship's hull to aid stability. Also known as 'Kentledge', iron ballast came in a number of standard sizes and weights. The individual ballast pigs were laid fore and aft along each side of the keel and overlaid with rock shingle ballast, which provided a more suitable surface for stowing the timber casks in which provisions were kept. A few tons of ballast iron were usually kept spare for shifting about to alter the vessel's trim, and this was made easier by the location of holes at each end of the pigs to attach ropes or lifting tackle. Eleven ballast pigs were recovered from the wreck site, and these appear to represent three different sized types; the largest weighing approximately 155 kilograms.



Fig. 5. Kentledge ballast in the Sirius Museum. Image G. Henderson, Wreck Check, 2017

From documentary evidence on the amount of ballast that the *Sirius* was carrying, it is clear that approximately two fifths of the original ballast iron from the shipwreck has still not been located.

During the 1985 expedition the last of the ship's three main anchors was raised, and its conservation treatment was completed at Norfolk Island by 1988. Two smaller anchors were also recorded lying on the reef, and these badly damaged examples are believed to have made up the full number carried by the ship. As a rated naval vessel, the *Sirius* also carried a complement of iron cannon. Originally twenty guns were aboard, but some had been removed to supply the garrison at the Port Jackson settlement. It is not known how many cannon the *Sirius* was equipped with when it went aground, but most of the guns were retrieved from the wreck by contemporary salvage operations. In the initial search for the exact location of the *Sirius*, archaeologists recorded a remnant of a stone causeway running out from shore to the reef. The origins of this causeway have not been discovered and it does not appear on maps of Norfolk Island until 1904. It has been theorised that it may be a roadway built during the salvage work in 1791, that it may relate to the early mining of stone by convicts for building on Norfolk Island or may have been constructed to assist in removal of the HMS *Sirius*' anchor that is now located in Macquarie Place, Sydney. Another possibility for the origin of the causeway is that it was constructed to allow the quarrying of stone used for the construction of the Kingston Pier

between 1839 and 1847. The two remaining guns on the site, 18-pounder carronades or 'smashers' designed for close range actions, were recovered in 1985 and 1993. There are only several known examples of this type of gun still in existence.

Further work on the *Sirius* site was conducted in 2002 through an initiative by the Norfolk Island Government. This project concentrated on the excavation of sand gullies between the reef and the shore, where a considerable range of artefact material was located. Local personnel under expert supervision have conserved the majority of the *Sirius* artefact collection at Norfolk Island, but some of the more complex items were returned to the Western Australian Museum for more detailed conservation and recording. Major artefacts such as one of the carronades that required complex treatment and analysis has now been remounted in a replica gun carriage for local display on Norfolk Island. The majority of the *Sirius* artefact collection is housed and displayed on Norfolk Island at the main colonial settlement of Kingston, close to where the ship was wrecked. A small selection of the archaeological material, including the anchor recovered in 1985, was transported to the Australian National Maritime Museum in Sydney, and the anchor is now on permanent exhibition there.

3.3 Economic and social influences on the development of the place

Being a high energy site, the *Sirius* wreck is rarely visited by anyone other than the board riders who delight in the significant wave heights.



Fig. 6. Board rider over the site. Image G. Henderson, Wreck Check, 2017

It is however not far east from the original landing place for the first settlement established in 1788, and the Kingston Pier where most of the importing and exporting of goods by sea and the launching and retrieval of fishing craft takes place. Some recreational swimming and diving takes place in the water inside the reef immediately inshore from the wreck, and Emily Bay, a little further eastward, is one of the island's most popular swimming locations. The remains of a causeway run between the high reef and the shore, a little to the west of the wreck site. The causeway may have been built in 1791 to salvage the guns from the wreck.

Other recorded shipwrecks close by include the 89 ton schooner *Friendship* (1835) wrecked near the landing place, the 40 ton cutter *Bittern* (1868) wrecked while waiting to load cattle, the 217 ton whaling barque *Mary Hamilton* (1873) wrecked to the west of Kingston Pier, the 68 ton schooner *Mary Ogilvie* (1893) wrecked while leaving Emily Bay, and the 255 ton schooner *Ronaki* (1943) wrecked on the east side of Kingston Pier (Henderson and Stanbury, 1988: 98)

The adjacent land, KAVHA, was the site of a convict settlement between 1788 and 1855, and the place where the Pitcairn Island descendants of the *Bounty* mutineers were re-settled in 1856 (KAVHA NHL). It is now a tourist precinct which includes the Sirius Museum.

3.4 Defining historical events associated with the place

13 May 1787: Departure of the First Fleet from England.

26 January 1788: Arrival of the First Fleet at Port Jackson marking the beginning of British settlement.

6 March 1788: Establishment of Norfolk Island with the arrival of Lt Philip Gidley King, with a party of 23 colonists including 15 convicts.

2 October 1788: *Sirius* sets out from Port Jackson for Cape Town for much needed supplies.

5 March 1790: *Sirius* and *Supply* take 210 convicts and their children to Norfolk Island to relieve the food supplies of the New South Wales colony.

19 March 1790: *Sirius* strikes the reef in Sydney Bay and is wrecked.

1905: A *Sirius* anchor is raised and taken to Sydney for permanent display at Macquarie Place.

1976: Commonwealth Government passes the HSA covering the *Sirius* wreck.

1983: ABA starts a reconnoitre project to determine what remains of *Sirius*.

1985, 1987, 1988, 1990, 1993, 2002: fieldwork seasons locate the central wreck deposit and recover approximately 3000 artefacts.

1988: Bower anchor loaned for exhibition to Australian National Maritime Museum in Sydney.

1994: Prime Minister Paul Keating's *Creative Nation* document brings National Centre of Excellence status to the Western Australian Maritime Museum with reference to archaeological work achieved on the *Sirius* wreck.

2002: Excavation of sand gullies between the high reef and the shore.

2004: *Sirius* collection relocated from the Protestant Chapel to the Pier Store building.

2012: *Sirius* collection relocated back into the Protestant Chapel.

2013: Opening of the Sirius Museum in the Protestant Chapel building.

3.5 Geographic influences on the development of the place

There was in 1790, and still is, no safe harbour at Norfolk Island, making loading and offloading of goods hazardous for visiting ships. Some observers at the time of the wreck of HMS *Sirius* on 19 March 1790 blamed onshore currents and a sudden wind change wind change for the disaster, but there may have been other contributing factors.

The site of the *Sirius*, adjacent to steeply shelving underwater topography, is subject to deep ocean swells, which caused the wreck to break up. The frequent severe turbulence has removed from the site all but heavy ferrous objects, shingle ballast and small artefacts covered by shingle.

3.6 The physical context of the place as seen by oceanographer George Cresswell during the 1988 expedition

The Site

The wreck site extends onshore/offshore some 70 metres as a very gently sloping plane in which there are several gullies and holes about several metres wide and one metre deep. The bottom is hard calcareous rock with a light covering of weed and numerous sea urchins. The depth across the site at mid tide was measured with graduated poles and lead-lines and found to range from 1.5 m onshore to 2 m offshore. For the next 60 m offshore the bottom falls away quickly at 1:20 to 5 m. This steep slope would allow many waves to reach the near-flat plane of the wreck site before steepening enough to break. Waves roughly 1.5 m high break at the inshore end of the site at mid tide. This breaking wave zone spreads offshore as the waves increase in height and/or as the tide falls, because, roughly speaking, a wave will break when its height is equal to the water depth.

Waves

The longest waves to reach the *Sirius* during October 1988 had a period of 15 seconds and would have travelled in the deep ocean from a distant storm at 45

knots, with wavelength 340 m. At the offshore end of the wreck site, however, where their velocity would have decreased to 10 knots, their wavelength would have been 75 m.

The significant wave heights (defined as the average height of the largest one third of the waves) for the month were estimated from the shore to range from 0.5 to 4 m. The two days having high waves were quite different: the first, 11 October, with 12 second, 3 m waves, occurred with low winds and so was due to a distant storm. The second, 18 October, with 15 second, 4 m waves occurred with an onshore gale and so perhaps the Island was near the downwind end of the fetch (Cresswell in Henderson 1989).

3.7 Biography of builder

HMS *Sirius* was built at Rotherhithe as the *Berwick*, for the Baltic trade in timber or coal; cargoes requiring unusually large hold capacity. Rotherhithe was then a shipbuilding village on the Thames, adjacent to Deptford, from where the *Mayflower* had sailed in 1620 with the first settlers for America. The earliest surviving mention of the *Berwick* is on 12 November 1781, when officers from the navy's Deptford dockyard reported that they had been on board 'the *Berwick* building in Mr Watson's yard tendered to be purchased' and that they had 'carefully inspected the state and condition of the hull' (Henderson and Stanbury 1988: 40).

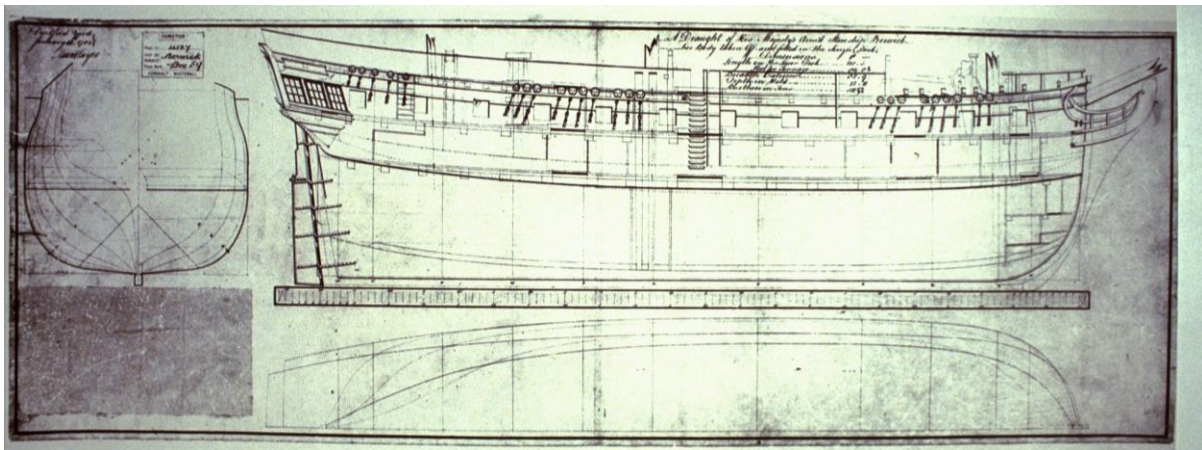


Fig. 7. Draught of the *Berwick* 1792. National Maritime Museum, Greenwich.

The vessel was still on the stocks at the time. Mr Watson, the *Berwick*'s builder, is probably the same Christopher Watson & Co. who built another First Fleet ship, the *Prince of Wales* (Bateson 1974: 80.)

Control of Deptford was in the hands of the Navy Board, among whose duties were the procurement of ships for the Royal Navy. The bare Baltic trader hull purchased by the British navy required extensive fitting out in order to serve as an armed storeship. The fitting out

progressed rapidly and in January 1782 the *Berwick* was floated from the dock to make way for the *Supply*, the vessel that was to become its tender in 1787.

3.8 Former and current uses of the place

The armed storeship *Berwick* was initially stationed at the Nore, off Sheerness at the mouth of the Thames, before setting off across the Atlantic in a convoy, with supplies for the British forces engaged in the American War of Independence, to Halifax harbour in Nova Scotia. After several more voyages as a storeship events were put in train at Deptford in August 1786 with orders from the Admiralty to the Navy Board to prepare the *Berwick* for foreign service.

Admiral of the Fleet Richard Howe wrote to the Navy Board on 12 October:

We...direct you to cause His Majesty's Storeship the *Berwick* to be registered on the List of the Royal Navy as a 6th Rate by the name of the *Sirius*, and established with the number of guns and complement of men mentioned (Anonymous to Navy Board, 12 October 1786, ADM/A2816, National Maritime Museum, Greenwich, quoted in Henderson and Stanbury 1988: 61).

HMS *Sirius* was the principal naval consort to the First Fleet, but its role was greater than that. The vessel was required to carry personnel for the penal settlement and a share of the provisions and stores for Botany Bay.

Subsequent to the vessel becoming a wreck, it had a number of uses, including a desperately necessary supply of food for the additional personnel who had arrived on the island. Provisions, equipment, armament, fittings and many parts of the ship's hull were salvaged by the island's residents. When the wreck finally went to pieces in January 1792, Lieutenant Governor King reported that everything possible was saved.

The water above the site is currently used for board riding. Frequently violent wave action makes diving on site inappropriate for the inexperienced.

The recovered archaeological and records collection is used for interpretation and research at the Sirius Museum, the Australian National Maritime Museum and the WAM.

3.9 Conservation of the place

Conservation means all the processes of looking after a place so as to retain its cultural significance. A number of artefacts judged to be a) at risk due to the corrosive effects of heavy underwater turbulence, b) feasibly conserved and c) suitable for site interpretation and research, were excavated from the site during the ABA expeditions.

The *Sirius* collection has been conserved, housed and curated in a professional manner which helps to ensure its long term conservation and protection, its consistent and

comprehensive documentation to ruling museum standards, its adequate storage, as far as possible in one location, the adequate display to the public of parts of the collection, and its access to bona fide researchers.

3.10 Chronology of major conservation events

The major conservation events are detailed in the expedition reports and conservation reports (see reference list).

3.11 Other reports providing detailed historical evidence about aspects of the place

The principal reports are as follows:

1. Henderson, G., and Stanbury, M., *The Sirius Past and Present*, Collins Australia, 1988. This comprehensive published account brings together the fundamental role of the *Sirius* in establishing the colony of New South Wales with the story of the archaeological investigations.
2. Henderson, G., (comp.), *1988 Expedition Report on the Wreck of HMS Sirius (1790)*. Report, Norfolk Island Government, published as Report 37, Department of Maritime Archaeology, Western Australian Museum, 1989. This is the most comprehensive of the expedition season reports. It contains the research designs, accounts of the methodology on site (including work programs, conservation procedures, oceanography and the testing of a model of the wreck), and appendices (including provenance of a hatchet head, construction of a carronade carriage, and diving schedules).
3. Henderson, G., and Stanbury, M., (comps), *Australian Bicentennial Authority Project 1987: Expedition Report on the Wreck of HMS Sirius (1790)*, published as Report 28, Department of Maritime Archaeology, Western Australian Museum, 1987. This report details the 1987 expedition, with appendices on artefact registration and catalogue, conservation, the NIM collection, and the *Sirius*' armament.
4. Stanbury, M., *HMS Sirius 1790: An illustrated Catalogue of Artefacts Recovered From the Wreck Site at Norfolk Island*, Special Publication No. 7, Australian Institute for Maritime Archaeology, Fremantle, 1994. This is a comprehensive analysis of the artefacts raised from the *Sirius*.

3.12 Unresolved questions about the development of the place arising from the documentary evidence

Prior to the 1988 fieldwork three research designs were developed (Henderson 1989). Progress has been made on each of these designs.

Research design 1. This was a review of the debate on the reasons for the establishment of the European settlement. Several hypotheses were posited: that the *Sirius* was an appropriate vessel for its role, that the *Sirius'* ballast was secured as a matrix over part of the ship's bottom, that the matrix was partially maintained after the process of destruction of the *Sirius'* upper works, that the matrix was sufficient to allow preservation of the ship's bottom, that examination of elements of the surviving ship's bottom will provide data indicating a well-constructed ship, and that other fittings will also provide such data.

Research design 2. This looked at whether a European model of correlation between environment and wreck site condition can be usefully applied to Australian sites in a predictive sense. Researchers were to examine hypotheses that a degree of correlation can be established on the *Sirius* wreck, and that other Australian sites will show correlation.

Research design 3. This looked at the sailing performance of the *Sirius* and examined the hypothesis that the vessel's loss was attributable to its being an inappropriate vessel or one in poor condition.

These research designs are unfunded and further progress on them would be dependent on funding sources being identified.

3.13 Areas for further research

1. There is a need for continued archaeological investigations on the site to answer important questions about the ship which in turn have bearing upon the debate about the original British motivation for colonisation of Australia. The question was put in the first research design in the 1988 Expedition Report, as to whether a decision made by Captain Phillip before the departure of the First Fleet, to remove a large part of the Kentledge ballast to make room for provisions, was detrimental to the stability of the vessel in the following years, and a factor in the vessel's loss at Norfolk Island in 1790. If the removal of ballast was a factor in the *Sirius'* loss there are several major ramifications. Firstly, how does this reflect upon the debate about whether the establishment of the Australian settlement was the result of long or short term thinking? Secondly, if incorrect ballasting was a factor in the *Sirius'* loss, was it an unseen factor in many other shipping losses?

Accurate calculation of the quantity of Kentledge ballast now on the site is the starting point to answering these questions. The survey conducted on the site in 1988 included delineation of the ballast. On-site photogrammetry has now been arranged to confirm or further assess the quantity of ballast. Once the quantity of ballast is confirmed arrangements will be made for consultations with naval architects, with the aim of virtual modelling and possibly tank testing of the vessel's stability and manoeuvrability. This work has been funded by a Community Heritage and Icons Grant.

2. There is also need for more thorough exploration of the archival records, firstly to ascertain what other changes were made to the *Sirius'* ballasting between its departure

from England and its running onto the reef at Norfolk Island, and secondly to detail the effect of the vessel's loss on the colonies in New South Wales and Norfolk Island. As recommended in the 1985 Report to the ABA, arrangements should be made for examination of the relevant records at the Library of New South Wales.

3. Consideration should be given to comparisons of collection data sets on a thematic basis with other European exploration, colonisation and survey ships that operated in the South Pacific and Indian Oceans during the late 18th and early 19th century. This might include HMS *Sirius*, HMS *Bounty*, HMS *Endeavour*, HMS *Discovery*, HMS *Adventure*, HMS *Resolution*, HMS *Pandora*, HMS *Porpoise*, the *Astrolabe* and HMS *Success*.

4. Consideration should be given to arrangement by the Manager for comparisons of data sets on a thematic basis between *Sirius*, the KAHVA collection, the HMS *Pandora* collection at the Museum of Tropical Queensland and other artefact collections.

5 The *Sirius* site is important, despite its relatively poor condition, as a potential source of general information about eighteenth century ship construction and fitting out, because few archaeological studies have been published on such vessels. Although archival sources for large line of battle ships of this period are generally regarded as being relatively comprehensive, the same does not apply to the smaller vessels employed by the British Navy.

6. If site inspections reveal that a substantial quantity of shingle ballast remains in the gullies on the site, consideration should be given in the future as to whether the shingle is now stable and whether there is a likelihood that significant small artefacts, such as more hatchets, remain in the shingle. Photographic monitoring of the gullies would provide such base-line data.

7. A test of the validity of a European systematic model for shipwrecks concluded that the factors in that model could be applied to the *Sirius*, but with some modification (Nayton, in Henderson 1989). Conservator Ian MacLeod, examining correlation from another perspective, has concluded that differences in voltages on the ballast pigs on the *Sirius* site are determined by the levels of turbulence and dissolved oxygen, and he has developed a now-widely-used model for interpreting corrosion rates on other sites around the world. (MacLeod 2017). Further development of the model is recommended.

8. Need for broad archaeometric studies. Metallurgical/chemical analyses of selected ships' fittings, fastenings and sheathing samples from the *Sirius* have provided research data relating to technical aspects of 18th-century shipbuilding including manufacturing technology, quality of production and workmanship of various components. The findings are providing tangible evidence to support/refute historical reports and assist in comparative artefact studies. A number of 18th century shipwreck sites in Australian and extra-

territorial waters such as the Solomon Islands and Mauritius are yielding artefacts that will provide a comparative data set for the *Sirius* collection.

9. Were there enough anchors on the *Sirius* when it arrived at Norfolk Island, and is it possible that a sense of concern about losing an anchor led the Captain to hesitate disastrously from dropping an anchor before it was too late? The number of anchors on the site appears to be less than archival sources indicate was required. Further archival research is necessary to establish what anchors were on the vessel when it left Sydney for Norfolk Island.

10. It would be timely to review fully each of the three research designs developed in the 1988 Expedition Report, utilising the evidence obtained since that time to test the hypotheses posed.

These ideas for further research are funded elsewhere or contingent on funding sources being identified.

4 Place Description

4.1 Current condition of the place and outline of the physical context of the place

Condition of the *Sirius* wreck site

The wreck site would appear to the casual observer to be stable despite the high energy waves, because iron ballast is the principal remaining component and it is concreted together and to the seabed. The remaining shingle ballast on site is confined to gullies, and the shingle covering provides protection to whatever small artefacts survive buried on site.

The Australian Heritage Database reads:

Artefacts belonging to HMS *Sirius* have been discovered imbedded in the coral rock of reefs, lodged in cracks, or buried in deep gutters between the reefs. The archaeological excavations undertaken between 1983 and 2002 recovered a substantial number of significant artefacts and the surveys indicate that a considerable number of artefacts remain *in-situ*. Some areas in Slaughter Bay are particularly susceptible to the rough sea conditions and have yet to be archaeologically investigated for further evidence of HMS *Sirius*. Artefacts recovered from HMS *Sirius* are now located in several places and collections including:

- Norfolk Island Museum (which holds the principle collection of artefacts);
- At various locations around Norfolk Island;
- Australian National Maritime Museum, Sydney, New South Wales;
- Macquarie Place, Sydney, New South Wales.

Physical context of the place

The Australian Heritage Database reads:

The primary shipwreck site of HMS *Sirius* is located on the outer reef at Slaughter Bay. There are also several secondary artefact deposition sites within the confines of the bay. The calcarenite reef extends along an east-west axis of Slaughter Bay and forms a natural barrier protecting an inshore lagoon from the normal action of the sea. At high tide and during storms waves break over the reef and wash onto the foreshore at Kingston. Like the outer reef, the foreshore is formed by a layer of calcarenite stone. The eastern end of Slaughter Bay is defined by Salt House Point, which is a low promontory protecting the crescent beach of Emily Bay. The western end of Slaughter Bay terminates at Kingston Pier. A break in the outer reef forms a natural inlet to the lagoon. In several areas the outer reef is cut by gutters paralleling the shore. Depths within the lagoon are shallow and average around three metres. The lagoon floor is covered by sand over coarse coral rubble. Artefacts from HMS *Sirius* have been identified at six main locations in the waters adjacent to Kingston:

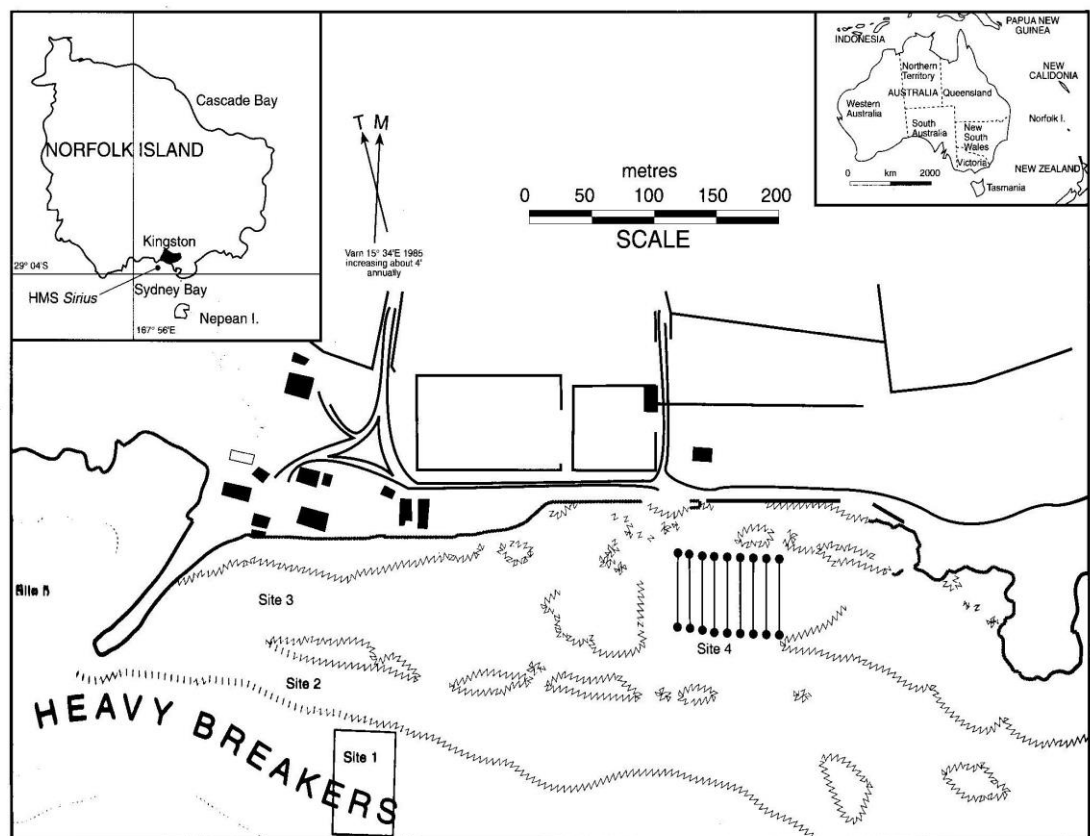


Fig. 8. *Sirius* wreck site locations surveyed by P. Clark, from Henderson, 1989

Site 1. The outer edge of the breakers (primary shipwreck site).

Site 2. The gully between the outer reef and the high inshore reef platform.

Site 3. East of Kingston Pier on the tidal reef platform.

Site 3A. Slightly East of Site 3.

Site 4. The lagoon in Slaughter Bay (secondary shipwreck site).

Site 5. West of the pier.

Site 6. Stone causeway located between sites 2 and 3.

With the exception of Site 6, the system of site numbering is the same that has been used to identify sites in the HMS *Sirius* archaeological excavation reports. Sites 1, 2, 3, 3A, 4 and 6 are within the proposed place boundary. Site 5, which is located outside the proposed boundary, has been excluded because this area contains the remains of several other historic shipwrecks and it is believed that the majority of artefacts from HMS *Sirius* were removed by local divers prior to the first archaeological expedition in 1983.

Site 1 has been identified as the primary shipwreck site of HMS *Sirius*, which is where the vessel first struck the reef on 19 March 1790 and remained there for 9 days. Light weight objects that were washed inshore from the ship during this period have been located during excavations at sites 2, 3, and 3A. The hull of the ship gradually started to break up and became more buoyant after many heavy objects detached from the hull including two carronades, several anchors and approximately 200 blocks (approximately 60 tonnes) of iron ballast. On 28 March 1790 heavy seas pushed the remains of the vessel closer inshore to the approximate position of Site 4 where much of the contemporary salvage was undertaken between 1790 and 1792.

At Site 6 there appears to be a man-made causeway made of calcareous stone between reefs adjacent to the primary shipwreck site. The origins of this causeway have not been discovered and it does not appear on maps of Norfolk Island until 1904. It has been theorised that it relates to the early mining of stone by convicts for building on Norfolk Island or may have been constructed to assist in removal of the HMS *Sirius* anchor that is now located in Macquarie Place, Sydney. Another possibility for the origin of the causeway is that it was constructed to allow the quarrying of calcarenite stone used for the construction of the Kingston Pier between 1839 and 1847.

Condition of the *Sirius* collection

The approximately 3000 artefacts (846 catalogued entries) recovered during the *Sirius* Project between 1983 and 1993, and the Norfolk Island Government's 2002 inshore work have been curated and conserved by staff of the NIM in collaboration with visiting conservators and archaeologists, mainly from the WAM. Many volunteers from the Norfolk Island community have assisted in this work. Details of the procedures undertaken can be found in the season reports of those archaeologists and conservators (Henderson 1987, Henderson and Stanbury 1987, Henderson and Stanbury 1988, Henderson 1989, Stanbury 1990, Stanbury 1994, Stanbury and Evans 2002). Part of the collection is exhibited in the

Protestant Chapel building (the Sirius Museum) within KAVHA and the remainder is in an off-site storage facility at Anson Bay. Most of the collection is in good condition.

4.2 Framework for measuring change in condition and values

Changes in the condition of the place can be measured from the descriptions in the expedition reports, the previous management plan, the site surveys, artefact drawings and photographs. Periodic visits by conservators, archaeologists and museologists have provided the opportunity for expert assessment of and reporting on the condition of the collection. During the 1980s *Sirius* Project expeditions many photographic images indicating the condition of the site were obtained, and digital copies of these are held by both NIM and the WAM. In March 2018 another set of images indicating site condition was obtained by members of the Norfolk Island Maritime Archaeological Association (NIMAA), who represent a small (6 members) but valuable collaborative group for both the Sirius Museum staff and visiting maritime archaeologists and conservators. NIM has a digital copy of the site images. Arrangements are under way for NIMAA divers to develop another set of images along predetermined tracks across the site for ease of interpretation. Repetition of the archaeometric studies conducted by conservator Ian Macleod will provide the data necessary for monitoring and understanding changes in the condition of metal objects on the site.

Supporting information in other reports

See reference list.

4.3 Analysis and comparison with other similar places

In regard to vessel type the qualities of the *Sirius* are comparable to those of other vessels employed by the British Government for activities in the South Seas during the second half of the eighteenth century. James Cook used the collier-built ships *Endeavour* (369 tons), *Discovery* (298 tons), *Adventure* (330 tons), and *Resolution* (460 tons) (Henderson 1989).

British archaeologist Keith Muckelroy examined a number of environmental factors and correlated these with the condition and intactness of archaeological remains: these being exposure to varying physical forces, exposure to specific physical forces, water depth, and seabed topography, and he graded twenty wreck sites into five classes (Muckelroy, 1977). The *Sirius* fits into Muckelroy's Class 5, the worst category, for which he predicts no structural remains, no organic remains, and only a few scattered objects.



Fig.9. HMS *Sirius* lies in a shallow high energy environment. Image P. Baker, WAM, 1988

4.31 Conflicts arising from physical evidence

The high rate of corrosion of ferrous material remaining on the site prompts the question, should it be removed from the site and conserved before it deteriorates further? The answer to this question is clear enough. Because the individual ballast pigs have cemented themselves to the reef, the removal process would be destructive to the ballast pigs. In addition, this process would destroy the monumental aspect by which the principal deposit of the site can be recognised. So the ferrous material on site should be left on the seabed. The rate of corrosion can be slowed dramatically by fixing anodes to the ferrous material and monitoring the effects (MacLeod 1996).

5 Heritage Significance

5.1 Analysis and significance of the place

The Australian Heritage Database reads:

Although the exposed position of the *Sirius* shipwreck had resulted in the destruction of all but the most robust artefact material, there is enough evidence from the underwater survey and contemporary historical records to account for the final movements of the doomed vessel. When the *Sirius* struck on 19 March 1790, it went stern first as the crew attempted to drop an anchor to arrest the ship's progress. The prevailing wind and current then forced the hull broadside against the reef as the masts were cut away, dragging two guns over the side. The anchor raised in 1985 and the carronades recovered from the site mark the orientation of the hull at this point. That evening the rising tide pulled the ship taut on the anchor chain, and it swung around again with its bow out to sea, the crew apparently dropping another anchor near the stern to steady the vessel.

In this position the *Sirius* remained relatively intact while the initial salvage efforts were under way, but on 28 March 1790 the ship had again swung broadside as the iron ballast began to fall out of the ruptured hull. Next day the now much lighter hull progressively moved further up on to the reef away from worst of the surf. Finally, the rising tide turned the ship's bow towards the land, then threw it 'more than her own length near to the shore'. The final resting place of the wreck, approximately 70 metres away from where it had first struck, is now marked by a large quantity of ballast iron. This iron ballast may possibly protect some surviving hull timbers, but problems with the exposure of any fragile material to such a destructive marine environment have so far limited further investigations.

Analysis of the results of the *Sirius* project has also shed new light on the construction of the vessel and raised challenging questions concerning the debate as to why Botany Bay was chosen as a penal settlement. Convict ships are frequently depicted as being rotten old tubs, and contemporary criticisms of the *Sirius* by some of the officers and crew have led historians to assume that the ship was poorly constructed, unsuited to and ill-equipped for the voyage to Botany Bay. Given this hypothesis, it has been argued that the settlement at Botany Bay was merely a temporary expedient to relieve England's overcrowded gaols following the American Revolutionary War, rather than part of a considered, well executed strategic plan to establish and maintain a permanent British presence in eastern and South Pacific waters.

As part of the project, the records of the British Navy departments that organised the First Fleet voyage were examined in 1987. Contrary to previously held beliefs, the *Sirius* had originally been built as a Baltic trader or East Country ship and not an East Indiaman. Constructed at Rotherhithe on the River Thames as the *Berwick*, the vessel had been purchased on the stocks by the Admiralty in November 1781 for use as an armed naval store ship during the final stages of the American conflict. It was standard practice in the British Navy to draw up hull plans of all its craft, and the surviving plans and descriptions of the *Berwick* show that it was a relatively short, beamy and deep vessel with good cargo carrying qualities similar to the collier barks

chosen by Captain James Cook for his voyages of exploration to the South Seas. A bronze spectacle plate that formed part of the ships rigging, which was recovered from the wreck site at Norfolk Island, bears the name 'BERWICK', thus confirming the identity of the shipwreck as the *Sirius*.

The documentary research produced sufficient information about the original construction and conversion of the *Berwick* to show that the building and outfit were of a high standard for the period. An account written by one of the *Berwick's* officers also indicates that the ship had above average sailing characteristics when compared to its contemporaries. Although the *Berwick* was laid up 'in ordinary' (or mothballed) in 1785, the records showed that the vessel received an extensive overhaul during late 1786 specifically for its role in the First Fleet voyage. By the time the newly renamed *Sirius* was ready, costs for the refit and supplies came in at more than £7,000, which was expensive for the period and indicative of a thoroughness of preparations for the naval contingent of the expedition.

In March 2001, the then Governor General of Australia, Sir William Deane, unveiled a new memorial to HMS *Sirius* on Norfolk Island that was built from bricks transported from the ruins of Captain Arthur Phillip's house in Hampshire, England. The location of the memorial, close to where the *Sirius* had been wrecked in March 1790, is particularly evocative of the dangers faced by the early European occupiers of Norfolk Island. In his address, Sir William not only recalled the history of the ship and its loss but also emphasised the significance of sites, relics and monuments as touchstones in our concept of Australia. He stated that 'For those of us who gather, this is a precious site in the history of our nation and this island. The relics retrieved from the wreck offer us a rare insight into the world of our past.'

5.2 Statement of significance in the 1993 Plan

1. The site is of outstanding historical and archaeological significance. The wreck of HMS *Sirius* is the only known remnant of the First Fleet. The surviving structural remains have the potential to provide information about the design and construction of the vessel, its maintenance and its condition at the time of the wreck. The nature and condition of the hull has a bearing upon the motivation of those responsible for sending the First Fleet. The site thus has research significance in relation to questions about the nature of the settlement and the intentions of the British in founding it.

2. The site, and the artefacts recovered from it, comprises a valuable source for comparisons with other European vessels employed in the South Seas during the latter half of the eighteenth century. Indications are that the similarities between *Sirius*, *Bounty*, *Pandora*, *Endeavour*, *Resolution*, *La Boussole*, *L'Astrolabe*, and others

are significant. Artefact collections exist from the *Pandora*, *La Boussole*, *L'Astrolabe* and *Bounty* from which comparisons can be made.

3. The *Sirius* site is important, despite its relatively poor condition, as a source of general information about eighteenth century European ship construction and fitting out, because few archaeological studies have been published on such vessels. Although archival sources for large line-of-battle ships of this period are relatively comprehensive, the same does not apply to the smaller vessels employed by the, Navy.

4. The site has social significance because material has survived relating to the presence on board of naval personnel, marines and convicts. This material has the potential to provide information about life on a British naval vessel during the eighteenth century, and information about the convict system.

5. The site has significance relating to military history. Military material found includes cannon, parts of small arms and various shot.

6. The historical significance of the wreck is reflected in the responses to the loss of the *Sirius* both in Australia and on the island. The letters, diaries and despatches of the period reflect the utter misery caused by the loss.

The loss of the vessel clearly had a great impact on the history of the colony. On Norfolk Island the expanded population faced the immediate threat of starvation. Many would doubtless have suffered had not the weather dramatically improved for several days during the last week of March 1790, enabling the salvage of provisions from the *Sirius*. Martial law was proclaimed, and stores were desperately low for many months. The incident had a negative effect on Norfolk Island in the longer term as a colony - the wreck had highlighted the lack of any port facility. On mainland Australia the situation was just as bad. The mainland colony faced the danger of starvation. The small brig *Supply* was available, providing minimal protection for the colony and a tenuous link with the outside world, but it had little capacity to carry supplies. The loss of the *Sirius* had brought the entire experiment of a penal colony in New South Wales close to failure.

Study of the *Sirius* site has increased and may be expected to further increase our understanding of events occurring in New South Wales and on Norfolk Island during the first years of settlement.

7. The site has symbolic significance in that the *Sirius* is the first identified Australian Shipwreck, in the sense of a ship being used by a people living in Australia (doubtless many small craft belonging to Indigenous people were lost in earlier years). Only two other substantial vessels were wrecked in Australian waters during the later years of the eighteenth century, these being HMS *Pandora* (1791), a vessel significant in the

British invasion of the South Pacific, but not 'Australian' in the same sense as the *Sirius*, and the *Sydney Cove* (1797), the first merchantman wrecked after settlement, but a vessel which had had no previous contact with the colony. The *Sirius* was the sixth known shipwreck in Australian waters, after the *Trial* (1622), *Batavia* (1629), *Vergulde Draeck* (1656), *Zuytdorp* (1712), and *Zeewijk* (1727).

8. The site has significance for studies of the process of wrecking and the study of corrosion phenomena. The comprehensive collection of documentary sources relating to the stages of disintegration, salvage activities, weather and sea conditions prevailing at the time have provided the necessary information for the development of a model of the wreck process that can be tested on other sites and increase understanding of the process.

9. The *Sirius* site has significance for site environmental studies. Being in a different physical situation to the sites employed by British archaeologist Keith Muckelroy in generating his model of the relationship between site environment and site condition, the *Sirius* site may be regarded as an appropriate test of the model.

5.3 Official National and Commonwealth heritage values

In accord with the EPBC Act, the Australian Heritage Council assessed whether the *Sirius*, a place nominated, has the appropriate heritage values, and made recommendation to the Minister who decided to include the *Sirius* as a place in both the NHL and the CHL. The values included in the Lists were assessed in the light of the *Sirius* Project archaeological reports between 1983 and 1989, a 2002 Norfolk Island Government report, a book (Henderson and Stanbury) published in 1988, the management plans of 1990 and 1993 emanating from the series of archaeological expeditions arranged by the ABA and the Australian Government, and archival research at the National Archives UK, arranged by the WAM and conducted by the 1983-1988 expeditions leader. The 1988 Expedition Report (Henderson 1989) contained a draft management plan including statement of significance, conservation and management policy, implementation plan and review. These sections were used with little change in the plans of 1990 and 1993. The official National and Commonwealth Heritage values specified in the Schedule of the EPBC Act, with comments added by the consultant, are as follows:

Criterion (a) the place has outstanding heritage value to the nation because of the place's importance in the course, or pattern, of Australia's natural or cultural history.

Values:

1. The shipwreck site of HMS *Sirius* has outstanding heritage value to the nation because of its importance in defining events in Australia's cultural history and for its part in development of the processes of Australian migration and defence.

Comment: The condition of this value has been enhanced through the archaeological interventions and historical research into the *Sirius* wreck, during and after the Australian Bicentennial celebrations.

2. The archaeological remains of HMS *Sirius* represent a tangible link to one of the most significant vessels associated with early migration of European people to Australia. HMS *Sirius* was guardian of the first fleet during its epic voyage to Australia between 1787 and 1788, which brought the convicts, soldiers and sailors who became Australia's first permanent European settlers. HMS *Sirius* was also the mainstay of early colonial defence in New South Wales and the primary supply and communication link with Great Britain during the first two years of the settlement.

Comment: The condition of this value has been enhanced. The remains on Norfolk Island represent almost the entire set of tangible links to the most significant vessel associated with early migration of European people.

3. The loss of HMS *Sirius* at Norfolk Island on 19 March 1790 was a disaster to the fledgling colony during a period of crisis, when the settlement at Port Jackson was in danger of collapse and abandonment. It can be argued that the adaptability, ingenuity and grim determination to survive, demonstrated by the colonists at Port Jackson and Norfolk Island following this disaster, became an enduring trait of the Australian people.

Comment: The condition of this value could be enhanced through further study of the records in the Mitchell Library dealing with the effect of the wreck upon the colony.

Criterion (b) the place has outstanding heritage value to the nation because of the place's possession of uncommon, rare or endangered aspects of Australia's natural or cultural history.

Values:

1. The shipwreck site of HMS *Sirius* has outstanding heritage value to the nation because it possesses rare and uncommon aspects of Australia's cultural history relating to early European settlement.

Comment: The condition of this value remains unchanged.

2. The archaeological remains of HMS *Sirius* are the only known remains of a vessel of the first fleet that sailed to Australia.

Comment: The condition of this value remains unchanged.

3. As the first fleet flagship, the story and *in-situ* remains of HMS *Sirius* are pivotal to the understanding of aspects of life during the early years of Britain's New South Wales colony. The artefacts already recovered during salvage and archaeological

excavations of the site represent the largest single assemblage of material culture from the first fleet voyage to Australia and the early European occupation of Port Jackson and Norfolk Island during the first two years of the settlement.

Comment: Those artefacts represent the only substantial assemblage of such material culture, enhancing the condition of this value.

4. In an international context, HMS *Sirius* also represents one of the few located examples of an 18th Century British warship that exhibits the use of experimental construction techniques in the period following the American revolutionary war and along with HMS *Pandora* is one of only two such naval shipwrecks from this period located in Australian waters.

Comment: HMS *Porpoise* was wrecked in Australian waters soon after (in 1803), but being a former Spanish prize that vessel might not exhibit such construction features. The condition of this value remains unchanged

Criterion (c) the place has outstanding heritage value to the nation because of the place's potential to yield information that will contribute to an understanding of Australia's natural or cultural history.

Values:

1. The shipwreck site of HMS *Sirius* has outstanding heritage value to the nation because of its potential to yield information that would contribute to a greater understanding of Australia's history of early European settlement.

Comment: The condition of this value remains unchanged.

2. The existing artefact collections and the remaining *in-situ* fabric of HMS *Sirius* contain important physical evidence of key historical events in Australia's history, including the voyage to Australia and the movement of colonists to Norfolk Island.

Comment: The physical environment of the *Sirius* wreck poses an ongoing threat to the condition of the remaining *in-situ* fabric. Thus the condition of this value is deteriorating.

3. Contemporary historical documentation relating to HMS *Sirius* is limited and there remain many unanswered historical and technical questions surrounding the ship and its cargo, especially at the time of its loss on Norfolk Island. The archaeological investigations of the shipwreck site of HMS *Sirius* have demonstrated its significant archaeological potential for research into the cultural heritage of the early European settlement of Australia.

Comment: This was rectified in part by research on the *Sirius'* construction and fitout, carried out at the National Archives UK during the late 1980s (Henderson and Stanbury 1988). This has opened the way to further historical archaeological questions, and the

condition of this value has been enhanced. The extensive records at the Mitchell library have not yet been closely examined. The value sentence could be changed to, 'There remain many unanswered historical and technical questions surrounding the ship and its cargo, especially around the time of its loss on Norfolk Island'.

4. The remaining fabric of HMS *Sirius* and associated artefact assemblages represents a 'time capsule' of cultural life from the period leading up to its shipwreck in 1790, which are relatively free from the effects of cultural disturbance after contemporary salvage ended in 1792.

Comment: The condition of this value remains unchanged

Criterion (g) the place has outstanding heritage value to the nation because of the place's strong or special association with a particular community or cultural group for social, cultural or spiritual reasons.

Values:

1. The shipwreck site of HMS *Sirius* has outstanding heritage value to the nation because of its strong and special association with the Norfolk Island Community, the descendants of the first fleet settlers and the Australian community as a whole.

Comment: The condition of this value remains unchanged.

2. The arrival of HMS *Sirius* and the first fleet at Sydney Cove on 26 January 1788 is one of the most important moments in our country's history, which is celebrated each year as the "Australia Day" national public holiday. The importance of the role HMS *Sirius* played in the founding of Australia is often reiterated on Australia Day including the unveiling of the HMS *Sirius* memorial in Macquarie Place, Sydney, which contains an anchor and cannon from the ship, which was conducted with great fanfare on Australia day in 1907.

Comment: The Norfolk Island community also commemorates the loss of the *Sirius* on 19 March, enhancing the condition of this value.

3. The important role played by HMS *Sirius* in the European phase of Australian settlement is widely recognised within the Australian community and is especially significant to the descendants of the first European settlers or "first fleeters" as they are often described. This importance was highlighted with the selection of HMS *Sirius* as a significant archaeological project to celebrate the Australian Bicentenary in 1988.

Comment: The visits of these 'first fleeters' represent a substantial proportion of the annual tourist numbers for Norfolk Island. The condition of this value remains unchanged.

4. HMS *Sirius* is also important to the people of Norfolk Island and is a celebrated part of their island's history, with the artefact collection from HMS *Sirius* housed in the Norfolk Island Museum. The history and archaeological remains of the HMS *Sirius* are highly valued by the people of Norfolk Island as the vessel represents a significant phase in the peopling of the Island and its development as a place of secondary punishment of convicts transported to Australia.

Comment: The wording of this value perhaps underplays the significance of the arrival of the *Sirius* at Norfolk Island in March 1790. In March 1788 HMS *Supply* had landed just 24 people to establish an embryonic first settlement. HMS *Sirius*' arrival (together with the smaller *Supply*) in March 1790, with 275 people in all, represents an important phase, marking the commencement of a substantial settlement. Deterioration in the condition of the *Sirius* collection is diminishing the condition of this value.

Criterion (h) the place has outstanding heritage value to the nation because of the place's special association with the life or works of a person, or group of persons, of importance in Australia's natural or cultural history.

Values:

1. The shipwreck site of HMS *Sirius* has outstanding heritage value because of its special association with the lives of prominent Australians who served as officers on HMS *Sirius*.

Comment: The condition of this value remains unchanged.

2. The careers of the first three governors' of the colony of New South Wales, Arthur Phillip (1788-1792), John Hunter (1795-1800) and Philip Gidley King (1800-1806) are closely associated with the history of HMS *Sirius*.

Comment: Further research on the importance of decisions made by these three men in regard to the *Sirius* has the potential to enhance the condition of this value.

3. All three sailed as senior officers on board HMS *Sirius* during the voyage of the first fleet to New South Wales; Phillip as Fleet Captain, Hunter as his second in command and King as Second Lieutenant. Hunter was also Captain of HMS *Sirius* during its last ill-fated voyage in 1790, when it was wrecked at Norfolk Island.

Comment: Further research on the impact of decisions made by these three men in regard to the *Sirius* has the potential to enhance the condition of this value.

5.4 Other heritage values

The archaeological remains of HMS *Sirius* are important in terms of Indigenous heritage values. A ground stone hatchet head of Indigenous Australian origin was found among shingle ballast recovered from the site.



Fig. 10. The hatchet head found in the shingle ballast. Image P. Baker, WAM, 1988

Hatchets were a vital part of the equipment of Indigenous Australian men for daily use, along with spears, spear thrower and club. The hatchet head likely once formed part of the collection of curiosities of an officer, and it symbolises the pattern of contact between Indigenous people and members of the First Fleet, in which exchanges of artefacts, services and food were important to both parties (McBryde and Watchman in Henderson 1989). More shingle ballast remains on the site, so there is potential for more such artefacts to be found. Large numbers of Indigenous artefacts were collected at Port Jackson by officers and seamen of the First Fleet. By 1793 it was observed that many museums in England had such collections. Philip Jones (2008) writes that while several of these artefacts may have survived in collections, the documentation confirming their provenance has not. He points to a modified club (passed down through the family of *Supply*'s master, David Blackburn) as the only surviving wooden artefact from the First Fleet.

5.5 Sensitive information

Under section 324Q of the EPBC Act certain information may be kept confidential if the Minister considers that the heritage values of a place could be significantly damaged by the public disclosure of information about the place's precise location or heritage values. The

consultant is not aware of any such sensitivities applying to the *Sirius* place. The official National and Commonwealth heritage values do not refer to sensitive information. The location of the place is well known, but the underwater environment is difficult for divers to access and the smaller artefacts remaining on the site are concealed within the shingle ballast.

5.6 Related places of National cultural heritage significance

The boundary in the NHL of KAVHA, one of 11 places that make up the Australian Convict Sites World Heritage serial listing, connects geographically with the NHL and CHL for the *Sirius* wreck place. Many of the artefacts recovered from the wreck site during archaeological investigations are exhibited in the Sirius Museum (Protestant Chapel Building) within the KAVHA area.

KINGSTON AND ARTHURS VALE HISTORIC AREA - KAVHA

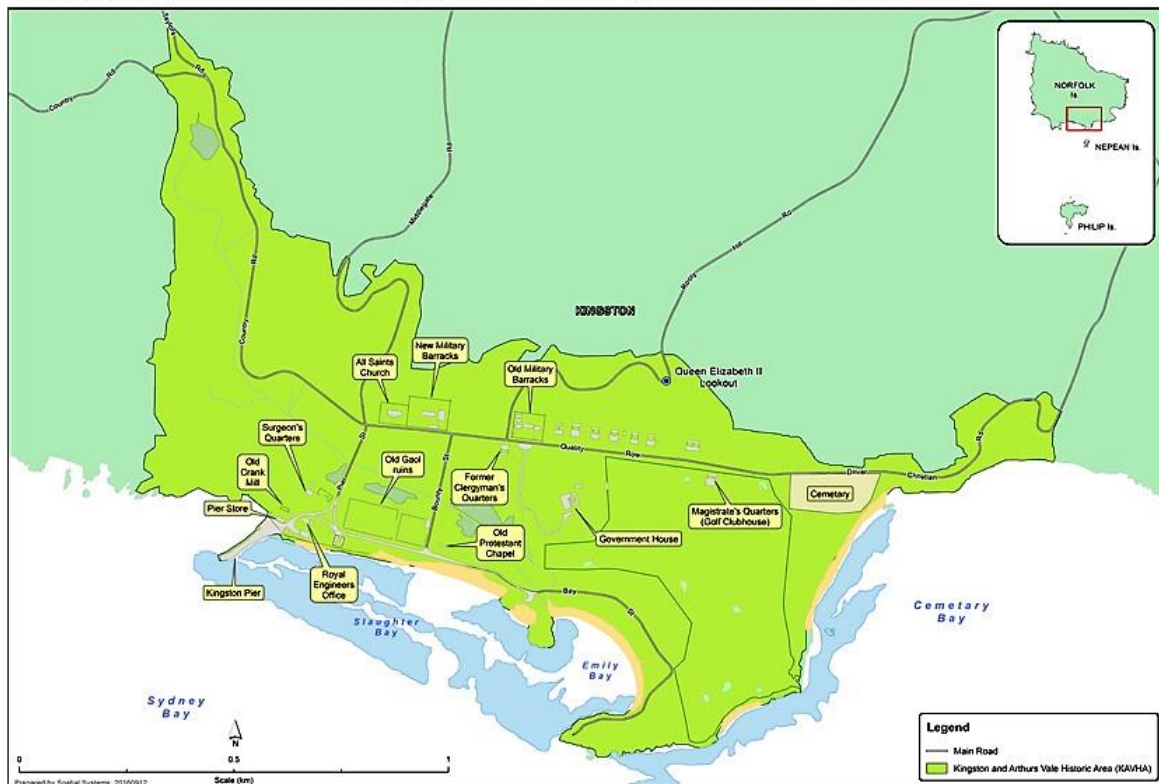


Fig. 11. KAVHA area map. <http://kavha.gov.au/getting-there/>. The sign for the Old Protestant Chapel (Sirius Museum) points to the wrong location.

Associations between KAVHA and the *Sirius* wreck site are strong, but underemphasised in the records. Philip Gidley King had landed just 23 people in March 1788, supplemented by later visiting ships, while the *Sirius* was intended to land enough people to constitute a 'substantial' convict settlement of 418 people (Phillip to Stephens, 10 April 1790). Yet the association between the *Sirius* place and the convict settlement is not mentioned in the NHL for KAVHA.

The 2016 KAVHA Heritage Management Plan (HMP) (p. 63) refers to historical associations with the first penal period, the research potential of sub-surface archaeology at the KAVHA site, historical records associated with the early phases of settlement, HMS *Sirius* artefacts, amenity value, family associations, and the wreck site containing strong and continuing association with the KAVHA site.

HMS *Sirius* is one of five shipwrecks on the NHL, along with the *Batavia*, HMVS *Cerberus*, HMAS *Sydney* and HSK *Kormoran*.

6 Opportunities and Constraints

6.1 Obligations arising from inclusion of the place on heritage lists

The conservation and management issues raised in the 1993 Plan were as follows

1. The site and the artefact collection are of such significance that they must be protected at all cost.

Comment: This is reflected particularly in values 2, 3, and 4 of criterion (b), and also in the values in criteria (a), (c), (g), and (h).

2. Material recovered from the *Sirius* site includes that recovered by the *Sirius* Project in 1983, 1985, 1987, 1988, 1990 and 1993; that recovered by private divers prior to that time and passed on to the Norfolk Island Historical society; that recovered by private divers and held in private collections on Norfolk Island and elsewhere; and that recovered by government instrumentalities prior to 1983 and now held in various collections in Australia and overseas.

Comment: Artefacts were also recovered by a Norfolk Island Government expedition in 2002. Material on loan or gifted from the *Sirius* Museum includes:

- i) The loan of an HMS *Sirius* anchor and associated artefacts (SI 57, 97, 105, 115, 164, 250, 259, 320, 321, 322, 350, 355, 534, 301) to the ANMM. In accord with section 11 of the HSA, authority for the movement and transfer of responsibility to the ANMM for the period of the loan was signed by the Minister of State for the Arts and Territories on 13 October 1988. The loan period was 10 years, and with more recent extensions now runs to June 2020.
- ii) Loan (2005-2007) of 16 items (some *Sirius*) to the Historic Houses Trust of NSW.
- iii) In 2007 the Minister for Environment, Education and Welfare signed, under the *Protection of Movable Cultural Heritage Act 1987* (PMCH Act 1987) a Certificate of Permission to Export a Class B object (a piece of copper sheathing, SI51) from the *Sirius*. The item was gifted for inclusion in the Statecoach Britannia, a 'time capsule' of historic relics considered significant to the United Kingdom, and presented to Queen Elizabeth II.

iv) There are some artefacts in personal collections on the island. The Manager should arrange for these to be registered with the Australian Shipwrecks Database.

3. The collection of material recovered from the site by the *Sirius* Project should be kept together with that derived from the Norfolk Island Historical Society as a collection on Norfolk Island. The only exception to this rule should be the limited number of items sent to other places, in accord with the Memorandum of Understanding, for a specified and limited time for purposes of exhibition, conservation or analysis.

Comment: Removal of the collection from Norfolk Island would limit a number of the heritage values, in particular value 3 of criterion (b), value 3 of criterion (c), values 1 and 4 of criterion (g), and value 3 of criterion (h).

4. The photographic collection is presently stored in a satisfactory environment at the Western Australian Maritime Museum. The collection has been made available to all bona fide requests. Prints, duplicate transparencies and negatives have been, and will continue to be, produced for other users in the well-equipped and full-time-staffed photographic section.

Comment: Most of the photographic collection is now on Norfolk Island in digital form. The photographic collection of archaeological and historical records is particularly important in regard to enhancing the values in criterion (c).

5. Fabric and setting. The site is located entirely underwater, but nevertheless has a monumental aspect as well as the archaeological one.

Comment: This links with value 4 of criterion (c).

6. The visible elements of the site are highly susceptible to damage from natural forces. While vessels wrecked on a seabed composed of mud or other fine sediments, and in low energy environments, can be said to become moderately stable after an initial period of heavy deterioration, vessels (such as the *Sirius*) wrecked on a rock seabed in a high energy environment continue to deteriorate at a high rate even 200 years after foundering. Highly oxygenated and turbulent water adds to the instability of the site. Corrosion potential measurements taken on iron artefacts in various positions on the site indicate that a very high level of corrosion is taking place on the site at all times. This corrosion leads to deterioration and disintegration of ferrous and non-ferrous material left on the site.

Comment: The high energy environment has not changed during the 25 years since corrosion readings were taken and it may be expected that the corrosion rate has not changed in that time. Mitigation strategies are required for values 1 and 2 in criterion (a), values 2 and 4 in criterion (b) and value 1 in criterion (c), to be maintained. The most

important mitigation strategy is the placement by professionals of anodes at appropriate locations on the site.

Sacrificial anodes previously placed on ferrous objects intended for removal from the site have been shown to reduce the rate of corrosion dramatically. The treatment of the second carronade raised from the wreck showed that *in situ* anodes removed c 85% of chloride salts and the bulk of acidity in the space of 2½ years.

7. Sea urchins cluster in crevices provided by artefacts on the site. It is clear that the urchins have caused and continue to cause widespread damage in the form of crater-shaped holes in concreted iron artefacts, either through constant abrasion by spines or perhaps additionally through the action of some enzymic and digestive chemicals secreted by the organism. It is not feasible to prevent this form of erosion over the whole site, but urchin hollowing needs to be monitored where it affects fragile remains.

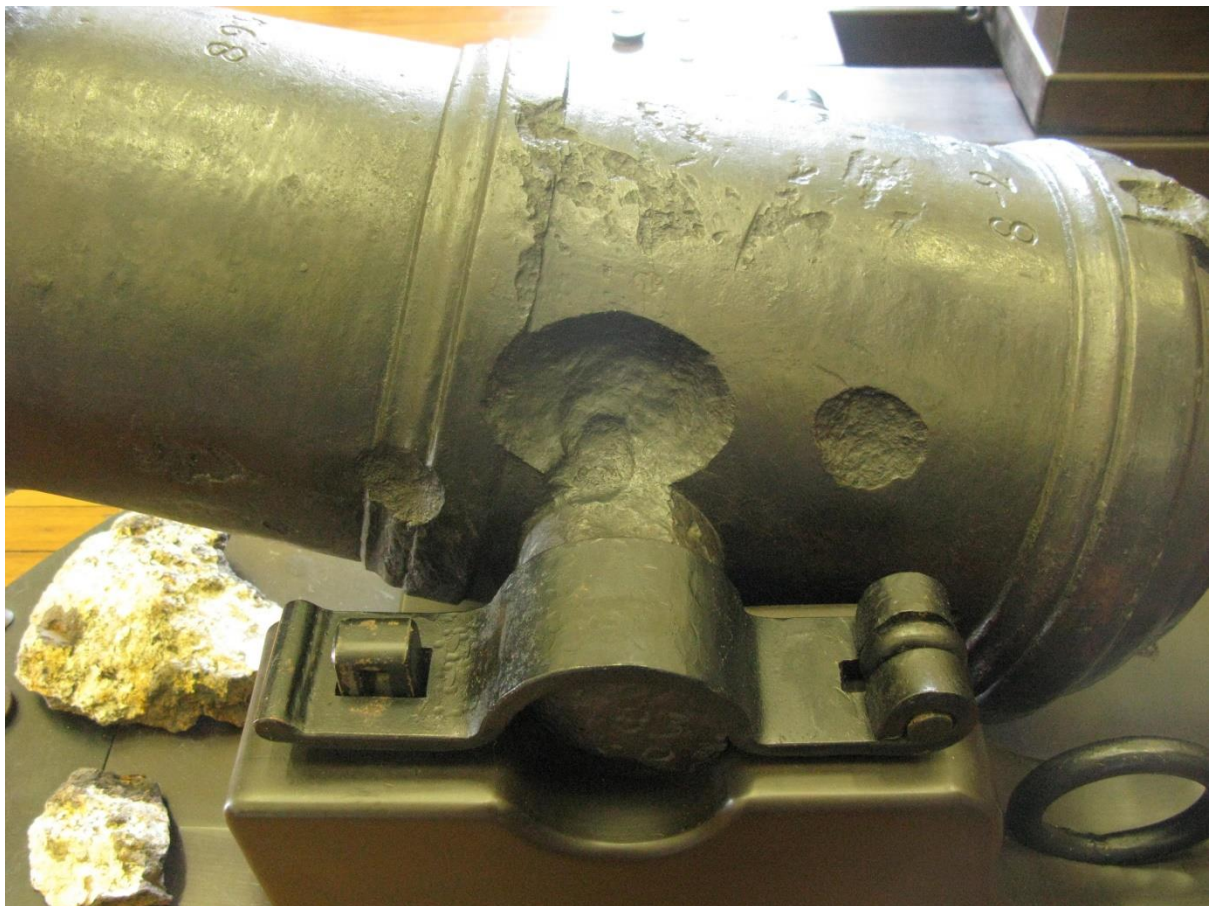


Fig. 12. Restored carronade with pitting attributed to urchins. Image G. Henderson, Wreck Check

Comment: The urchins appear to be reducing the condition of a number of values including values 1 and 2 in criterion (a), values 2 and 4 in criterion (b), and values 1 and 2 in criterion (c). No monitoring of urchins has yet been done. A 4 cm hole in a carronade appears to have

been caused by sea urchins. It has been reported (pers.com. Ian MacLeod) that examination of the stomach contents of sea urchins clinging to ferrous material on the wreck has revealed iron corrosion product magnetite, Fe_3O_4 . Examination by a marine biologist of urchin samples from the wreck and from a similarly turbulent non-wreck site has potential to throw further light on this issue. Measuring 'urchin holes' on a sample set of *in-situ* ferrous material would provide base-line measurements as the means to ascertain any further urchin erosion.

8. Heavy storms periodically occur at the site, and at these times current-borne rocks and pebbles may be expected to abrade and to sweep away exposed artefacts. An indication of the forces operating on the site was given during the 1988 fieldwork when a half-tonne pyramidal concrete plaque, lying in three metres of water, moved at least seven metres during three days of large-swell conditions.



Fig. 13. The missing *Sirius* underwater plaque. Image P. Baker, WAM, 1988

Comment: Appropriate signage above and below water is necessary to maintain the condition of values 1 and 2 in criterion (a). The pyramid's present whereabouts are unknown and it is likely to have moved out to sea. The information plaque on the seawall in front of the prison compound is in the form of a clock face with the hands indicating midday and pointing seaward. The clock face is prone to interpretation as a pointer to the wreck site, but it points to a different location.



Fig. 14. The clock-face sign. Image G. Henderson, Wreck Check, 2017

9. The visible elements of the site are also exposed to human intervention notwithstanding the infrequency of visits by divers. During conditions of low swell, dive-boats anchoring on the edge of the swell zone could unintentionally have their anchor interfere with the seaward side of the site, in particular the remaining ring of the first bower anchor thrown overboard by Captain Hunter. Once in the water divers could unintentionally damage the site by removal of weed, by scraping objects with knives, or even by hanging on to or bumping into protruding artefacts during surge rushes. It is not anticipated that divers would remove large fixed artefacts, because it is generally known that the site is protected, and such protracted activities would attract attention. There are small, loose artefacts such as sheathing tacks, shingle ballast and musket balls which could be removed surreptitiously by divers.

Comment: Value 2 of criterion (a) has not been substantially affected by recreational divers. There have been no serious incidents involving surreptitious removed of objects. Several years ago a diver removed a copper bolt which is now part of the Museum exhibit.

10. The site ... is not presently used for recreational activities, except on infrequent occasions. The principal reason is that most Norfolk Island diving (both by locals and tourists) is done in close association with the two dive shops, which provide equipment sale and hire, boat charter, and diver training and supervision. Neither organisation takes divers to the *Sirius* site because the staff are of the opinion that

the sea conditions on the site are both uncomfortable and dangerous for most recreational divers. Most divers prefer the more attractive and comfortable deeper water further offshore. The presence (since 1988), of directional plaques adjacent to the site both above and below water increased awareness of the exact nature of the site but did not lead to an increase in recreational use.

Comment: Both dive shops have now closed down. The dive shops took divers to other places. However, now that they are gone, the members of NIMAA have less access to equipment and training.

11. The principal archaeological deposit lies within 150 metres of the Kingston Pier, the principal means for launching and landing vessels and seaborne cargo. There are no current plans for extension of the pier, and if such plans should arise it is likely that they would impact more upon the area to the west than to the east.

Comment: The Kingston Pier underwent an upgrade in 2006, however no extension plans have been developed in the intervening years since 1993.

12. There is a need for continued archaeological investigations on the site to answer important questions about the ship which in turn have bearing upon the debate about the original British motivation for colonisation of Australia.

Comment: The questions currently being asked do not require site excavation activities. New research has the potential to enhance values 1 and 2 of criterion (a), and values 1, 2, and 3 of criterion (h). Such investigations are contingent on external funding sources.

13. Excavation on some parts of the site may be expected to cause some damage to remaining artefacts through additional exposure to the elements.

Comment: Initial examination of the site during the 1980s led to the expectation that a layer of iron ballast pigs (Kentledge), each with a hole that could have been used to shift them or keep them in place, might be covering hull timbers comprising the floor of the ship. A matrix of ballast pigs might have provided protection for some timbers. However, the survey conducted in 1990 shows a jumble, rather than a substantial matrix, suggesting that at an early stage of the wreck process all of the ballast fell through the hole in the hull, and that the ballast lies directly upon the reef, with no surviving timbers. Thus the early idea of cutting a trench through a part of the ballast to reveal timbers is redundant. The individual blocks are firmly cemented to the limestone reef, so corrosion rates notwithstanding, attempts to prise ballast from the reef for exhibition purposes would be particularly destructive. The ballast comprises the only monumental aspect on the site, and the removal of part of it would reduce values 1 and 2 of criterion (a).

14. The public should be told of the significance of the place. There is a strong need for the site to be interpreted, given the important role played by the *Sirius* in the

colonisation of Australia, and the relative inaccessibility of the site itself, lying entirely underwater and situated in such a hostile environment. There is a need to heighten public awareness of the existence of the wreck at Norfolk Island and the reasons for it being there, to familiarise the public with the debate about the British motivation for colonisation and the ways in which the *Sirius* site can influence that debate, and to develop public awareness of the important role of Norfolk Island in the initial colonisation plan.

Comment: The condition of the values of the *Sirius* is reduced in the Protestant Chapel, the present exhibition venue. The environment inside the building may not be conducive to long term survival of the larger *Sirius* iron artefacts and is reducing the condition of values 1 and 2 of criterion (a), values 2 and 3 of criterion (b), and value 2 of criterion (c). The building's location diminishes its accessibility for the visiting public, reducing the condition of values 1 and 2 of criterion (a). The building is too small for an exhibit to be mounted that mirrors values 1, 2 and 3 of criterion (a), and values 1, 2, and 3 of criterion (b).

At the community meeting (appendix 2) it was suggested that visitor awareness of the significance of the *Sirius* place (including the Sirius Museum) would be enhanced by provision of an audio visual at the Tourist Information Centre.

The Environment. Prior to 2012 the Sirius Museum was housed in the repurposed former Pier Store building at Kingston, close to the *Sirius* wreck site. Conservation reports indicated that the ocean-side location of the Pier Store was putting the exhibited *Sirius* artefacts at risk. A 2005 report to the Department of Environment and Heritage recommended, in regard to the Pier Store:

The current display of the *Sirius* collection in the Pier Store is cramped and detracts from the importance of the collection. To entertain the idea of carrying out costly alterations and installing air conditioning to create, at best, an inferior exhibition space, is a poor plan. The stability of the *Sirius* collection has been compromised enough and is it now timely to build a new structure which addresses the collection issues of collection environment, display, storage, conservation and visitor amenity (Erskine and Acton, 2005)

In a 2008 report Acton (p. 12) wrote that 'It is clear that iron alloy artefacts remain unstable', and also commented that 'it is a matter of urgency that a permanent solution is found'. In another report Acton (2010:9) wrote that 'Rehousing of the KAHVA and *Sirius* collections are a priority.'

In 2012 the Sirius Museum was relocated to another nearby ocean-side location, the former Protestant Chapel building, where the recovered *Sirius* bower anchor could be accommodated. Prior to the HMS Sirius collection relocation a 'Statement of Heritage Impact' was prepared by Eric Martin and Associates (2012). The author stated that 'The

report has been prepared without a specific site inspection and limited drawings but the details provided are sufficient to define most of the changes and assess the impact'. The building, a complete ruin by the 1870s, had been rebuilt as a church in the 1890s, and again fell into complete ruin before being rebuilt in 1968 as a Youth Centre. The Martin report stated that the building was to be an interpretive museum, but added that 'Environmental control/air conditioning should be avoided'. Martin cited 'Policy 8 – new uses should be selected which are compatible with the heritage significance of the place or element and its fabric', but his report said nothing to indicate an appreciation that the building's intended occupant, the HMS *Sirius* Collection of delicate and precious conserved waterlogged 18th century artefacts, might present special environmental requirements.

The relocation has not solved the issues. The same issues have continued since before the exhibited collection was transferred to the Protestant Chapel building. A 2016 report regarding the condition of the *Sirius* material in its new home noted that the building is not air conditioned, that it routinely experiences high humidity, that it exhibits salt efflorescence issues throughout the internal walls, that given the proximity of the sea, airborne salts are likely to be deposited in the museum, including within display cases and on displayed objects, that white mould was observed on the *Sirius* carronades and bower anchor, and that the anchor appears to have substantially re-corroded owing to humidity levels (Dalwitz pp 5-9). The report recommended,

If analysis provides sufficient grounds, scope the installation of airconditioning into the *Sirius* Museum or other facility intended to display and store the *Sirius* collection. Fund and install (Dalwitz).

In 2017 the consultant noted deep cracks in the surface of one of the Kentledge ballast blocks, and several 'exploded' cannon balls.



Fig. 15. Kentledge showing damage. Image G. Henderson, Wreck Check, 2017



Fig. 16. Cannonball showing damage. Image G. Henderson, Wreck Check, 2017

The question arising is whether passive environmental controls (the cheapest option) could provide a satisfactory environment for the exhibits. The second option, air conditioning, may be much more expensive, and may intrude on the authenticity of the building. A third option, moving the collection to a purpose-built 'green' building, would involve major cost (Henry 2007). To date the passive option (including museum quality display cabinets) has not been fully implemented.



Fig. 17. Sirius Museum display cabinets. Image G. Henderson, Wreck Check, 2017

Museum Location. The Protestant Chapel building is hidden from the waterfront at the back of the prisoners' compounds, on the north-east corner adjacent to the swamp known as Kingston Common (KAVHA HMP: 20).



Fig. 18. The Protestant Chapel Building. Image G. Henderson, Wreck Check, 2017



Fig. 19. Sirius Museum signage. Image G. Henderson, Wreck Check, 2017

Despite being in the proximity of the waterfront the building is isolated and separated from the tourist traffic visiting the Kingston Pier. Directional signage for the Sirius Museum is inadequate – the ‘Protestant Chapel’ sign on the entrance door is in larger font than the ‘*Sirius*’ sign. The consultant was unable to read the A4 ‘*Sirius*’ sign from the road. On the sandwich board sign erected during opening hours the font for ‘*Sirius*’ is smaller than the font for ‘Norfolk Island Museum’, and much smaller than the adjacent road grid warning and other road traffic signage. The KAVHA HMP (p.115) states that ‘Compatible uses within the KAVHA site...do not require overt...advertising’. However, overt – meaning ‘open and observable, plainly apparent’, is a necessary condition for informing the public of the exhibition. Many of the tourists from the visiting cruise ships take the opportunity to wander, but unless they pass close by during opening hours they will not be aware of the *Sirius* exhibition.



Fig. 20. Cruise ship visitors like to wander about the island. Image G. Henderson, Wreck Check, 2017

15. The possibilities of interpretation of the site are very substantial. The collection of artefacts recovered from the *Sirius* includes items relating to the hull, the fittings and armament, and the people who worked and lived on the ship. These artefacts have the potential for interpretation of many of the themes relating to the significance of the site. A number of historic buildings have been restored at Kingston, and the Protestant Chapel has been made available for the display of material recovered from the *Sirius*. That building is located not far from the *Sirius* site, and has sufficient floor space for appropriate interpretation of the site.

Arrangements should be made by the Manager for annual inspection and maintenance of the two information plaques indicating the wreck site position.

Comment: No publications specifically about the *Sirius* are available for sale at the Museum. The condition of values 1 and 2 of criterion (a) would be enhanced through making available a book incorporating the results of the archaeological work conducted since 1988, and a booklet encapsulating the text currently used in the exhibits together with a selection from the digital image collection now in the Sirius Museum. The clock-face information plaque on the seawall is misleading.

16. The site is protected under the Commonwealth's *Historic Shipwrecks Act 1976*. DAS has the responsibility for the administration of the Act, and it is necessary for visitors to the site to obtain a permit to do other than a non-interference dive on the site. DASET can delegate certain powers under the Act to other bodies.

Comment: The DoEE now has responsibility for the administration of the HSA. The Manager now holds the positions of Delegate and Practitioner.

17. Custody of artefacts recovered from the site is with the Norfolk Island Government under the Memorandum of Understanding between the Commonwealth Government and the Norfolk Island Government.

Comment: Custody is now with the NIM operating within the Heritage Management Division of the NIRC.

18. The *Sirius* Project expedition leader was required to provide a full archaeological report to the ABA, the Government of Norfolk Island and DASET (the predecessor of DAS), by October 1989 (Henderson 1989). A copy of the report is lodged with the Norfolk Island Library. The report, to which a number of the expedition members contributed, was required to include full details of the work carried out since 1982 as part of the *Sirius* Project and provide considered conclusions about the archaeology of HMS *Sirius*.

Comment: The reports written and compiled by WAM staff are included on the WAM website. A fine addition would be detailed discussions on the conservation of the *Sirius* objects and making them available in 3-D and downloadable from the website.

6.2 Existing management framework

The management of the *Sirius* place is guided by a number of legislated instruments and recognised heritage management principles. (Note: as of 1 July 2016 reference to the Norfolk Island Government refers to the Minister for Regional Development, Territories and Local Government, Department of Infrastructure and Regional Development). The statutory requirements and agency mechanisms are as follows:

6.21 National and Commonwealth heritage management principles

The EPBC Regulations Schedule 5B—National Heritage management principles and the Schedule 7B—Commonwealth Heritage management principles (**substitute ‘Commonwealth’ for ‘National’ in each principle**), state that:

1. The objective in managing National Heritage places is to identify, protect, conserve, present and transmit, to all generations, their National Heritage values.

Comment: These processes have been and are being progressed through the site investigations and interventions, conservation procedures, the development of the Sirius Museum, and the production of reports, books and journal articles. However, given that the objective is to protect and conserve the National Heritage values for all generations, and that this place of outstanding heritage value was recognized in the 1993 Plan as being under threat from the high energy environment, the lack of any monitoring over the following 25 years is unsatisfactory. The 1993 Plan recommended mitigation through attachment of anodes to at-risk objects.

2. The management of National Heritage places should use the best available knowledge, skills and standards for those places, and include ongoing technical and community input to decisions and actions that may have a significant impact on their National Heritage values.

Comment: The Manager has engaged appropriate expertise from the lead agencies in Australia, including the WAM and the Australian National Maritime Museum. The high level of community input has been a consistent feature of the conservation of HMS *Sirius*.

3. The management of National Heritage places should respect all heritage values of the place and seek to integrate, where appropriate, any Commonwealth, State, Territory and local government responsibilities for those places.

Comment: The management of the *Sirius* has respected the heritage values and sought where appropriate to integrate responsibilities for the *Sirius*. This plan considers the idea of integrating the Commonwealth and local government responsibilities regarding the *Sirius*.

4. The management of National Heritage places should ensure that their use and presentation is consistent with the conservation of their National Heritage values.

Comment: The use and presentation of the *Sirius* has generally been consistent with the conservation of its National Heritage principles. However, the environments in which the exhibited artefacts have been housed have not been fully controlled.

5. The management of National Heritage places should make timely and appropriate provision for community involvement, especially by people who:
 - (a) have a particular interest in, or association with, the place; and
 - (b) may be affected by the management of the place.

Comment: The management has made such provision since the commencement of the *Sirius* Project in the 1980s, including volunteers in diving aspects, conservation procedures and visitor service roles. The development of NIMAA presents new opportunities for community involvement. The group is small (some 6 members of whom 3 are qualified divers), and until March 2018 none of the members had seen the site. There is need for capacity building with the collaboration of professionals before substantial expectation is placed upon this group.

6. Indigenous people are the primary source of information on the value of their heritage and the active participation of Indigenous people in identification, assessment and management is integral to the effective protection of Indigenous heritage values.

Comment: Management could develop awareness among the Indigenous people of Australia of the hatchet located among shingle ballast recovered from the *Sirius* through the writing and dissemination of a report.

7. The management of National Heritage places should provide for regular monitoring, review and reporting on the conservation of National Heritage values.

Comment: Reports on collection conservation have been conducted frequently (see Erskine, Acton, Dalwitz). The consultant has only seen one of the reports on building conservation conducted by KAVHA (Martin 2012). Monitoring of the wreck site has not been conducted since 2002, and that work focussed on the area inside the reef. The EPBC Act requires a management plan review every five years, or sooner if the values of the place change, or major changes are proposed. However the current 1993 Plan was done 25 years ago, and the main wreck site lying outside the high reef was last fully inspected in 1988: 30 years ago.

6.22 Historic Shipwrecks Act 1976 (HSA)

On 22 October 1984, after consultation with the Norfolk Island Government, the Minister of State for Home affairs and Environment declared the wreck of HMS *Sirius* to be an historic shipwreck under the HSA. The HMS *Sirius* shipwreck and its associated relics are protected by the HSA. Any action that may, or is likely to have a significant impact on the heritage values of the HMS *Sirius* site should be referred to the DoEE. A Permit from the Minister may be required for certain actions in relation to the *Sirius* wreck site or relics. The HSA is administered by the DoEE and applies directly to collections of HMS *Sirius* material held by the Sirius Museum and other institutions and individuals. The Team Leader Heritage Management (the Manager), NIRC, has been directed, by the Minister for the DoEE, to act as the Delegate on Norfolk Island under sub-sections 10(1), 11(1) and section 15 of the HSA. The Inspectors under the HSA are the Federal Police based on the island.

Under the HSA some historic shipwrecks lie within protected or no-entry zones covering an area up to a radius of 800 metres around a wreck site, and may be declared where circumstances place it at particular risk of interference. However the HMS *Sirius* wreck site is not considered to be at particular risk of interference.

The HSA has recently gone through a public consultation and review process. Any updates to the HSA and its enforcement provisions will require assessment as to their impact on coordinated management policies and enforcement strategies.

6.23 Protection of Movable Cultural Heritage Act 1986 (NI) (PMCH Act 1986)

The *Sirius* artefacts are included on the PMCH Control List as Class B being objects that shall not be exported otherwise than in accordance with a permit granted by the Commonwealth Minister.

6.24 Protection of Movable Cultural Heritage Act 1987 (NI) (PMCH Act 1987)

Under the ***Protection of Movable Cultural Heritage Regulations 1988*** certain items objects that constitute the movable cultural heritage of Norfolk Island are subject to export control and cannot be exported from Norfolk Island without a permit from the Commonwealth Minister. These are:

- i. Objects recovered from or located in the Kingston–Arthur’s Vale Historic Area and relating to convicts, free settlers, military or naval personnel associated with the penal settlement of Norfolk Island before 8 June 1856, and
- ii. Objects recovered from ships wrecked before 1 January 1938 in territorial waters within the meaning of the Territorial Waters Act.

6.25 Memorandum of Understanding between the Commonwealth of Australia and Norfolk Island: wreck of, and relics from, HMS *Sirius*, signed April 1988.

Under this MoU the two Governments recognised that the wreck and associated relics are of historic significance to the people of Australia and particularly to the residents of Norfolk Island. They agreed that:

- i. the protection, preservation and conservation of the wreck, relics and associated articles from the wreck is of paramount importance, and that any action taken under a management plan will be consistent with this principle.
- ii. the wreck should not be regarded as a source of important individual items but as a body of material whose collective significance outweighs the importance of the individual pieces and in which the relationship of the individual items within the collection is a major part of its historical significance.
- iii). Norfolk Island is the home of the wreck, and the appropriate location for the museum to house the relics and associated articles.
- iv). the bulk of the collection from the wreck would remain on Norfolk Island.
- v). the wreck and relics and associated articles would be conserved, preserved and managed in accord with a plan of management to be agreed.
- vi). the two Governments would try to agree on the contents of a plan of management by December 1988.

vii). the plan of management would be consistent with the Act and the memorandum, and include provisions relating to management of the wreck site (including conditions under which archaeological expeditions might work at the site), methods to conserve relics, methods of relic storage, the availability on Norfolk Island for relic display and research, and access for divers wanting to inspect the wreck site.

viii). the two Governments agree not to take steps in contradiction of any agreed plan of management, and to consult before taking steps on matters not covered in the memorandum or any agreed plan of management.

6.26 1990 Plan of Management HMS *Sirius* wreck, wreck site and relics (1990 Plan)

The 1990 Plan was adopted by the Commonwealth and the Norfolk Island Government in 1990 (R. Mulligan to J. Bannister 29 June 1990). The scope of the 1990 Management Plan included the site, artefact collections and records collection. It provided a statement of significance, an outline of conservation and management issues, a conservation-and-management policy and an implementation policy. With minor modification this became the 1993 Plan.

6.27 Agreement between the Commonwealth of Australia and the Administration of Norfolk Island, relating to Historic Artefacts, signed 10 August 1990.

Under this agreement KAHVA is the subject of a management plan between the two Governments with the object of conserving KAHVA, continuing appropriate use of the area, encouraging visitation and understanding of historic significance, and managing the area in an efficient and economic manner. Ownership of historic artefacts remained with the Commonwealth but custody was to be undertaken by the Administration. The agreement is relevant to the *Sirius* listed place because in addition to the people offloaded from the *Sirius*, most of the fabric of the *Sirius* was transported to within the KAHVA boundaries by salvage operations and the forces of ocean currents and wind.

6.28 Memorandum of Understanding between the Commonwealth of Australia and Norfolk Island: Application of Blanket Declaration to Historic Shipwrecks in Waters Surrounding Norfolk Island, signed September 1993.

Under this MoU the two Governments agreed that the remains of ships declared historic under the HSA would be conserved, preserved and managed in accord with plans of management to be agreed between the Governments.

6.29 1993 Plan of Management HMS *Sirius* wreck, wreck site and relics (1993 Plan)

The current Plan, a 'Plan of Management for HMS *Sirius* wreck, wreck site and relics' was agreed to by the Minister for the Arts and Administrative Services, representing the Commonwealth Government, and the Minister for Immigration and Lands, representing the Norfolk Island government, on 8 September 1993. The scope of the 1993 Plan includes the site, artefact collections and records collection. It provides a statement of significance, an

outline of conservation and management issues, a conservation-and-management policy and an implementation policy. A 'Review of HMS *Sirius* Management Plan' was prepared by Myra Stanbury and Ian MacLeod of the Western Australian Museum in 1996, but was not signed off or accepted by the Commonwealth.

6.210 Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act)

Under the EPBC Act the NHL includes places of outstanding heritage value to the nation, and the CHL includes heritage places owned or controlled by the Commonwealth. The Minister for the Environment and Energy (DoEE) is responsible for the EPBC Act and ensuring the sound management of NHL and CHL places. The EPBC Act protects the natural and heritage values of sites listed on the NHL and CHL. Any action that is likely to have a 'significant impact' on the heritage values of the HMS *Sirius* NHL site is a controlled action requiring a permit from the Commonwealth DoEE Minister.

6.211 UNESCO Convention on the Protection of the Underwater Cultural Heritage (2001 Convention)

The Commonwealth Government has not yet ratified the 2001 Convention. However, as a step towards this process, on 5 July 2010 the *Australian Underwater Cultural Heritage Intergovernmental Agreement* was endorsed, committing the Commonwealth and State governments to use the 2001 Convention's annexed 'Rules concerning activities directed at Underwater Cultural Heritage' as current international best practice (Viduka 2014: 14). Thus, any potential implications for the HMS *Sirius* shipwreck place will be assessed and managed in accord with the 2001 Convention.

6.212 Planning Act 2002 (NI)

The *Planning Act* deals with matters including construction, alteration, relocation, signs and hoardings. The consultant has not seen this Act.

6.213 Norfolk Island Plan 2002

This Plan includes specific objectives and planning controls for the KAVHA site.

6.214 Heritage Act 2002 (NI) Heritage Register

KAVHA was listed for its heritage significance including historical significance for evidence of the four settlement periods reflected in features including the HMS *Sirius* wreck.

The Team Leader Heritage Management (the Manager), NIRC, has responsibility for exhibitions, research, interpretation, development of public awareness, collection conservation, management and security. However NIM has no specific budget lines for conservation, materials, equipment, collection conservation or museum specific training (Dalwitz p. 3)

KAVHA is responsible for the maintenance of the Protestant Chapel building housing the Sirius Museum.

6.3 Owner/occupier needs and operational requirements

6.31 Governance and funding

The NIM (comprising the *Sirius* collection and exhibition) operates within the NIRC funded by the Commonwealth through a service delivery agreement. The NIM is an integral part of KAVHA, functioning under a separate management structure resulting in increased reporting and operational obligations and disparate resourcing. The KAVHA HMP 2016 recommends developing proposals for the long term governance and funding of KAVHA. Initial discussions are giving consideration to the operations and requirements of the NIM within an integrated KAVHA management structure.

6.32 Resourcing

The NIM has recently engaged a qualified conservator to undertake the role of Collections Officer including conservation and collection management. This is significant progress towards ensuring the long term preservation of the *Sirius* collection. However, current budget constraints require the Collections Officer to perform the dual purpose of Museum Attendant during opening hours, resulting in distractions and reduced hours to perform collection management functions.

Human resources for the NIM consist of 3 permanent positions including: Team Leader Heritage Management, Museum and Research Officer and Collections Officer, with additional support provided by a team of casuals with varying skill sets. The NIM would be better resourced by engaging the 'casuals' as permanent part-time positions resulting in increased recognition of skills and security of employment providing greater consistency and expertise in interpretation, exhibition and skills development.

6.4 Proposals for change and potential pressures these may have on heritage values

6.41. Integration with KAVHA. Combining resources would have economies of scale, and should allow for improved overall interpretation of the values of the two entities. However, if this is to be done there is need to examine how it would be done to maximise benefit for both entities. The long term occupation of the Protestant Chapel building by the Sirius Museum is permissive occupancy (KAVHA HMP: 81). Over recent years KAVHA's funding for physical maintenance works and staff has been reduced and more complex and costly maintenance works have not progressed (KAVHA HMP: 83).

Firstly, KAVHA are not maintaining the building in a satisfactory state, and there appears no clear indication that integration would be the key to resolving this. Secondly, the KAVHA HMP (p. 98, 122, 135) indicates reassigning of NIM staff to broader KAVHA roles. The present staffing for running the Sirius Museum cannot be dispersed to non-museum functions without compromising the values of the *Sirius*. Thirdly, the Sirius Museum is not mentioned at all in the 95 recommendations in the KAVHA HMP. The Sirius Museum requires a profile to maintain the condition of values such as 1 and 2 of criterion (a). Integration of the NIM with KAVHA must provide pathways for greater awareness and

interpretation for the HMS *Sirius* place if deemed as an appropriate governance arrangement for the future.

6.42. Purpose-built facility. If full implementation of passive environment controls proves insufficient to protect the exhibits and issues of building authenticity preclude installing the necessary museum-grade active climate controls appropriate for conservation of shipwreck artefacts in the Protestant Chapel building, consideration should be given to transferring the exhibited artefacts to a venue where such controls are attainable, even if that means the artefacts are moved away from the waterfront area. The watermill area has been mentioned as one option.

6.5 Process for making decisions about matters having potential for impact, and for situations where expert advice must be sought

Advice on site condition. The Manager will, where a proposed action is likely to have an impact on the HMS *Sirius* wreck site, refer that proposed action to the DoEE Minister.

The process is outlined in the DoEE's 'Environment and assessment approval process' document (<http://www.environment.gov.au/protection/environment-assessments/assessment-and-approval-process>).

The Manager will arrange support from the Commonwealth for an inspection visit to the *Sirius* site at least every five years by a maritime archaeologist or conservator acquainted with the site, followed by a condition report to the Commonwealth. Site inspections will include observation of the gullies for movement and exposure/damage to small artefacts in the shingle ballast. Changes in the condition of the place will be measured from the descriptions in the expedition reports of the 1980s and 2002, the previous management plan of 1993, the site surveys of the 1980s, artefact drawings and photographs (including the images captured by NIMAA divers in March 2018). If substantial change is observed the Manager will arrange through the Commonwealth for a special inspection of the site by a maritime archaeologist or conservator.

Advice on collection condition. The NIM has recently engaged a qualified conservator to undertake the role of Collections Officer including conservation and collection management. The Manager will ensure that the Collections Officer acts upon the recommendations in collection conservation reports such as Acton 2008, 2010, Dalwitz 2016.

The Manager will arrange with the Commonwealth for an inspection of the collection on exhibition and in storage every five years by a maritime archaeologist or conservator with experience of conserved waterlogged materials, followed by a condition report to the Commonwealth. If substantial change is observed the Manager will arrange through the Commonwealth for a special inspection of the collection by a maritime archaeologist or conservator.

7 Policy and Implementation in the 1993 Plan

7.1 Policy in the 1993 plan

1. The provisions of the *Historic Shipwrecks Act 1976* will continue to apply to the site and collection.

Comment: The HSA still applies.

2. Developments in the area (such as pier extensions) will be planned such as not to impinge on the *Sirius* site. This applies particularly to the principal deposit to the East of the pier.

Comment: All actions will comply with EPBC controls

3. Use: The underwater site will generally be reserved for passive recreation. Signage will be maintained both below and above water, so long as this remains consistent with continued conservation of the site.

Comment: The site is rarely dived on, but board riders frequently use the water above. The site information plaque has been moved by the forces of the sea, but into deeper water away from the wreck site. The above-water signage is misleading and will be rectified.

4. All steps necessary will be taken to protect the site from damage from boating and recreational activities.

Comment: This is still relevant.

5. The effects of sea urchin hollowing will be monitored on the site, and if necessary control methods may be instigated in the areas of heavy iron concretions.

Comment: No monitoring or control has taken place.

6. Interpretation: An interpretive centre will be located in an existing building at Kingston close to the wreck site. The interpretive centre will exhibit artefacts recovered from the wreck in conjunction with introduced interpretive material to explain the role of the *Sirius* in the colonisation process.

Comment: The collection is interpreted in the Protestant Chapel building close to the wreck.

7. To increase public awareness of the site, encouragement will be given for the production and availability of pamphlets and other interpretive materials, including books, audio visuals and videos.

Comment: Books and audio visuals have been produced, but these need to be updated or augmented. The video and a substantial book (long out of print) were produced in 1988, and

need updating to include results of post 1988 archaeological expeditions and archival research.

8. Arrangements will be made for the site and collection to be inspected regularly by appropriate specialists who will undertake the necessary procedures for site conservation.

Site inspection/monitoring comment: Section 324W of the EPBC Act requires that at least once in every 5 years the minister must cause a review of the management plan to be carried out, and such a review is of limited value in the absence of any site inspection/monitoring during the intervening years. This policy has not been implemented. Inspection of the *Sirius* wreck is complicated by limited suitable diving days, lack of diving equipment and difficulty in transporting equipment to Norfolk Island. During the January/February 1987 *Sirius* Project expedition 9 of the 17 available work days were suitable for diving on the main site and team members spent a total of 110 seabed hour during 88 dives. However there has been no inspection of the main site since 1988. A site inspection in the near future by a maritime archaeologist and a conservator familiar with the site is a high priority.

Site observations by conservators in Chuuk Lagoon showed elevated corrosion rates after typhoons. A site inspection with appropriate equipment should be done in such circumstances to determine the corrosion rate. The most effective means to ensure that this is done at short notice after heavy storms is to train and equip local divers in *in situ* corrosion monitoring. NIMAA currently has three qualified divers.

Collection comment: The collection has been inspected frequently by appropriate specialists, and the *Sirius* Museum has recently engaged a qualified conservator.

9. No permit will be given for purposes of conservation or for archaeological expeditions to work on the wreck site unless the work to be carried out under the permit is consistent with the ICOMOS Burra Charter, and has the approval of both DASETT and of the Norfolk Island Government. Given the site's outstanding archaeological significance it will be disturbed only for essential and justified conservation or research purposes by qualified and approved conservators or archaeologists. Where research questions can be answered by recourse to alternative sites or other sources of information, the *Sirius* site will be left undisturbed as a permanent reference area.

Comment: No permit will be given for purposes of conservation or for archaeological expeditions to work on the wreck site unless the work to be carried out under the permit is consistent with the ICOMOS Burra Charter, and has the approval of both DoEE and of the Manager. Given the site's outstanding archaeological significance it will be disturbed only for essential and justified conservation or research purposes by qualified and approved

conservators or archaeologists. Where research questions can be answered by recourse to alternative sites or other sources of information, the *Sirius* site will be left undisturbed as a permanent reference area.

10. Material recovered from or associated with the *Sirius* shall be conserved, housed and curated in a professional manner which ensures:

- a) its long term conservation and protection
- b) its consistent and comprehensive documentation to ruling museum standards
- c) its adequate storage, as far as possible in one location
- d) the adequate display to the public of parts of the collection
- e) its access to bona fide researchers

As part of this policy, the private, and other government holders of *Sirius* material, will be encouraged to pass this material on to the museum.

Comment: Item (a) is not being fully achieved with the present housing.

7.2 Implementation of the 1993 Plan

1. The Norfolk Island Government, in consultation with the Commonwealth Government, will encourage the production and availability of pamphlets and other interpretive materials, including books, audio visuals, and other videos to increase public awareness of the site, and of the role played by the *Sirius* in the colonisation of Australia, and more specifically of Norfolk Island. The Norfolk Island Government will consider encouraging or facilitating the production of a popular book of some 60 pages which, with the aid of many illustrations, will tell the story of the *Sirius*.

Comment: Much of this has been achieved. Interpretive materials produced include two books, chapters in others, a number of journal articles, an audio visual and pamphlets.

2. Arrangements will be made between the Commonwealth and Norfolk Island Governments for an inspection visit to the *Sirius* site and collection every two years by a maritime archaeologist acquainted with the site and collection. The inspection will be followed by a condition report. The manager will provide a half-yearly report on the condition of the site and collection according to a format to be specified by the leader of the *Sirius* Project expeditions.

Comment: The biennial inspections by a maritime archaeologist have not occurred.

3. Arrangements will be made between the Commonwealth and Norfolk Island Governments for similar visits and reports by a conservator with expertise on

underwater archaeological materials. The Manager will likewise provide half-yearly reports to a format specified by the Conservator of the *Sirius* project. A sacrificial anode, placed on the remaining carronade by the 1988 *Sirius* expedition, will be monitored on those occasions by the visiting conservator. The Manager will arrange for local divers to inspect the sacrificial anode once every six months.

Comment: The biennial visits have not occurred. The successful treatment of the second carronade raised from the wreck showed that *in situ* anodes removed c 85% of chloride salts and the bulk of acidity. The carronade was recovered and given final treatment at the Works Depot before being wax impregnated and placed on exhibition.

4. Arrangements will be made between the Commonwealth and the Norfolk Island Governments for the recovery and treatment, by a maritime archaeologist and conservator, of the remaining carronade from the site. This should be done because of its vulnerability on the seabed. The appropriate timing would be soon after the successful completion of treatment of the first recovered carronade (1990), such that information gleaned during that treatment can be put to good effect.

Comment: The remaining carronade has been successfully recovered and treated, and is now part of the Sirius Museum exhibition.

5. The Manager will encourage private and government holders of *Sirius* material to pass this material on to the Manager's custody.

Comment: Whilst the Manager will ultimately encourage owners of *Sirius* material to pass this material into the Managers custody, the HSA requires all owners of shipwreck material older than 75 years to register their objects. Registration simply records the details of shipwreck material and in no way interferes with ownership. On Norfolk Island the NIM is the agency to contact to register shipwreck material.

The HSA does not prevent private ownership of relics, or their sale or disposal, but it does regulate their transfer and disallows further removal of objects from wreck sites or disturbance of sites. The reasons for registering material are not only that it is a legal requirement, but that without registration material cannot be sold or transferred.

The registration form is a relatively simple one page form that includes contact details, a description of the relic and information such as: (if known) where the relic was found, association, where it is stored and its condition. The NIM can provide a copy of the registration form or it can be downloaded from

<http://www.environment.gov.au/heritage/historic-shipwrecks/possessing-exporting-historic-shipwreck-relics>.

6. The pamphlets to be available at the Sirius Museum on Norfolk Island will ask divers not to anchor boats inshore of the underwater information plaque, which will be placed seaward of the concreted ring of the anchor recovered in 1973. This measure will help to avoid damage to the site from boat anchors and chain. The

pamphlets will point out that divers should not physically interfere with the site. Board riders will not be restricted in their access.

Comment: Once the plaque is located and securely placed, notification of this protective measure should be included on the NIM website, the NIRC website and KAVHA website.

7. The Manager will facilitate the maintenance of a register, initiated by the *Sirius* Project, of all material recovered from the *Sirius* site.

Comment: The NIM are currently updating the electronic database management system to Vernon to provide a more professional and comprehensive collection management system

8. The Manager will ensure that records are kept of all work done on the collection for purposes of conservation, research and display.

Comment: The Vernon electronic collection database system provides a comprehensive collection management system enabling all relating documents, files and images to be associated with the accessioned object.

9. The Manager will ensure that all material in the *Sirius* collection is conserved and preserved according to the guidelines and code of ethics of the AICCM (Australian Institute for the Conservation of Cultural Materials Inc.) as prescribed by the Western Australian Maritime Museum to the present time.

Comment: The Manager will join NIM with the AICCM as an organisational member.

10. All artefacts will be housed indoors in the Protestant Chapel building, unless a building of superior quality is made available close to the wreck site.

Comment. Artefacts not on exhibition are now housed in the former ANZCAN manager's house built in the 1960s at Anson Bay, repurposed as NIM's collection storage. It is not air conditioned and routinely experiences high humidity (Dalwitz 2016), but the facility appears sound and relatively secure.



Fig. 21. Dehumidifier in Anson Bay storage. Image G. Henderson, Wreck Check, 2017



Fig. 22. Storage cabinet at Anson Bay. Image G. Henderson, Wreck Check, 2017

11. All but large iron artefacts will be housed in temperature-and-humidity-controlled storage and display cabinets. Such control can be achieved through passive environmental management strategies associated with the construction of 'sealed' display cases. The storage cabinets will be 'Perth Cabinets' (manufactured by Joyce Australia, 8 Forsyth St O'Connor WA 6163) or a similar product.

Comment. The Sirius Museum has a variety of showcases, showcase materials and object supports, none of which appear to be 'museum standard'. The building exhibits salt efflorescence on internal walls, is not air conditioned, and routinely experiences high humidity, although the portable dehumidification unit operates constantly. Passive environmental controls (appropriate cabinets) have not been acquired since the 1993 Plan recommendations.



Fig. 23. Sirius Museum interior. Image G. Henderson, Wreck Check, 2017

12. Cabinets will have provision for locking.

Comment: Cabinets have provision for locking.

13. As far as possible all *Sirius* material will be stored in one location, together with the records relating to it.

Comment: Off-site storage is at Anson Bay. Records are kept in the Sirius Museum or digitised and backed up by NIRC. Hard copies of accession records are held off-site at the Anzcan Store as a disaster management measure.

14. The Commonwealth and Norfolk Island Governments will ensure that the Sirius Museum is provided with a controlled microenvironment, in the form of temperature and humidity controlled storage and display cabinets. The relative humidity should be 60+/- 4%, and the temperature should be 20 degrees +/- 2 degrees.

Comment: Control might be achieved through passive environmental management strategies associated with the construction of 'sealed' display cases, but there is a variety of cases, showcase materials (including coated and uncoated timber, painted steel, painted plywood plinths) and object supports (Dalwitz 2016: 5).

15. The Manager will ensure that a selection of the artefacts is utilised for a display that will illuminate the role of the *Sirius* in the foundation of the first settlements at Sydney Cove and Kingston.

Comment: This has been done.

16. The Manager will ensure that supervised access is provided in an appropriate location to bona fide researchers who apply in writing, and will keep a register of those researchers.

Comment: Supervised access to material is provided to the public, including bona-fide researchers at the Research Centre at No 9 Quality Row. Requests generally come in via email.

17. *Sirius* objects on display will be given the security of glass or other barriers, and the building will be provided with fire and burglar alarms. Staff will attend the building, and it will be open to the public at least three days a week at regular times, as well as at appointed times for bus tours.

Comment: Staff attend the building, open to the public 6 days per week 11am to 3pm. It has smoke alarms but there are no fire suppression systems.

18. The copyright of the *Sirius* photographic collection belongs to the Australian Bicentennial Authority (the pre-1988 section) and the Norfolk Island Museum (the 1988 and 1990 sections). In addition, photographs have been taken of artefacts temporarily held for conservation treatment at the Western Australian Maritime Museum. These photographs will be catalogued by Patrick Baker and stored with the main *Sirius* photographic collection. All photographic originals will later be stored as a unified collection (in cabinets as advised by Patrick Baker) in the strong room in the New Military Barracks on Norfolk Island. The Norfolk Island Government will facilitate the production of duplicates as required for lecturing and publication purposes. Duplicates will be produced at cost at the Western Australian Maritime Museum such that one set of duplicates can be held in Western Australia and one set on Norfolk Island.

Vulnerability to damage (specifically by damp, fungus, heat and light) makes it essential that particular care be given to the storage of photographic originals. For lecturing and publication purposes duplicates will be used as much as possible, to reduce the risk of mechanical damage.

By agreement with the Manager, until the archaeological and conservation research work (Henderson, Stanbury and MacLeod) is completed (the major report was completed by October 1989, but other artefact research is still continuing) the photographic collection will remain at the Western Australian Maritime Museum.

Comment: The photographic originals are still at the WAM, but a large selection of digital copies has been provided to the NIM.

8 Policy and Implementation Plan for 2018-2022

Note: 'reg' refers to the EPBC Regulations.

8.1 Policy for 2018-2022

HMS *Sirius* wreck site management and conservation

1. Monumental aspect. The wreck site is located entirely underwater, but nevertheless has a monumental aspect in the Kentledge ballast mound and remaining anchor. Their removal would reduce values 1 and 2 of criterion (a), so they will be left intact on the seabed for all generations (reg h i)

2. Site Monitoring. Full monitoring of the main wreck site has not been conducted since 1988, and the inside reef area has not been inspected since 2002. It is of high priority that this be done. The Manager will arrange support from the Commonwealth for an inspection visit to the *Sirius* site by a suitably qualified maritime archaeologist and conservator during the 2019/2020 financial year, followed by a condition report to the Commonwealth. Subsequently the Manager will arrange support from the Commonwealth for an inspection every five years by a maritime archaeologist or conservator acquainted with the site, followed by a condition report to the Commonwealth and timed to precede the management plan review. Site inspections will include observation of the gullies for movement and exposure/damage to small artefacts in the shingle ballast. (reg h viii, ix, x).

3. Protective anodes. The visible elements of the site (the iron ballast and anchor) are highly susceptible to damage from natural forces. However, during the successful treatment of the second carronade prior to its being raised from the wreck, *in situ* anodes removed c 85% of chloride salts and the bulk of acidity. During the site monitoring visit in 2019 protective anodes will be attached to ferrous objects remaining on site, with a view to reducing the corrosion rate underwater in perpetuity.

4. Training. During the 2019/2020 site monitoring visit the conservator will provide NIMAA members with information and training on the monitoring of the anodes in regard to their reduction in corrosion rates, and for the maintenance and replacement of the anodes such that they do not in themselves pose a hazard to artefacts on site by breaking away from their attachments in a destructive manner (reg h i, vi, viii).

5. Anode inspection. The Manager will arrange for suitably trained and equipped NIMAA members to inspect the sacrificial anode annually and after major storm events (reg h i, iii, xi).

6. Video links and skype will be made available by the Manager for NIMAA members to annually discuss site conservation with appropriate specialists (reg h i, iii, viii, ix).
7. Developments. The principal archaeological deposit lies within 150 metres of the Kingston Pier, the principal means for launching and landing vessels and seaborne cargo. The Manager will ensure that developments in the area (such as pier extensions) are planned such as not to impinge on the *Sirius* site. This applies particularly (but not only) to the principal deposit to the East of the pier (reg h vi).
8. Site Monitoring. The Manager will arrange with NIMAA for their members to obtain a set of overlapping vertical underwater photogrammetric images of the *Sirius* wreck site for use as base-line site condition information (reg iii, vii, ix).
9. Reporting process. The management of the HMS *Sirius* place will provide for regular monitoring, review and reporting on the conservation of National and Commonwealth Heritage values. Having and referring to reports on *Sirius* site monitoring processes should be part of the maintenance cycle. The reports will include written observations about the site condition and changes, with sets of photographs illustrating site features, and archaeometric data. The reporting process will include standardised requirements for scheduled updates on the measures taken to implement the report recommendations. The reports will be kept in a secure location readily accessible for staff, and NIM will make digital copies. The voluntary efforts of NIMAA members will be utilised and this will be done in collaboration with professionals.
10. Storms. Site observations by conservators in Chuuk Lagoon showed elevated corrosion rates after typhoons (MacLeod 2017). An additional site inspection with appropriate equipment will be done in such circumstances to determine the corrosion rate. The most effective means to ensure that this is done at short notice after heavy storms is to train and equip NIMAA members in *in situ* corrosion monitoring. This will be arranged between the Manager and the Commonwealth (reg h ii, iii, vii, viii, ix).
11. Conditions for work permits. No permit will be given for purposes of conservation or for archaeological expeditions to work on the wreck site unless the work to be carried out under the permit is consistent with the ICOMOS *Burra Charter*, and has the approval of both DoEE and of the NIRC. Given the site's outstanding archaeological significance it will be disturbed only for essential and justified conservation or research purposes by qualified and approved conservators or archaeologists. Where research questions can be answered by recourse to alternative sites or other sources of information, the *Sirius* site will be left undisturbed as a permanent reference area (h vi, viii).
12. Protection from damage. All steps necessary will be taken by the Manager to protect the site from damage from boating and recreational activities. The Manager will inform and maintain communication with local Inspectors under the HSA and arrange for an awareness raising notice to be put in the NIRC website acknowledging the existing respect by the

fishing club, board-riders and divers in not interfering with the wreck site, and asking boat owners not to anchor inshore from the underwater information plaque. The place is unsuitable for divers unless they are fit, experienced, and have some knowledge of the site conditions. Divers are not restricted from access to the site for non-intrusive use (reg h iii, vii).

13. Unforeseen discoveries or disturbance. A person finding an article associated with the *Sirius* is required under section 17 of the HSA to notify the Minister, and interfering with the *Sirius* shipwreck or relic contravenes section 13. The Manager will register all unforeseen discoveries or disturbances on the wreck site in accordance with Notification of Possession, Custody or Control of Historic Shipwreck Relic, Under Sections 9 and 10(1) of the HSA. The Manager will also photograph and record details of subsequent actions and seek identification from heritage specialists. If an item proves to be from the *Sirius* it will be registered into the collection and given appropriate conservation treatment. If a breach of the HSA is suspected, the Manager will alert an Inspector and the responsible DoEE officer (reg h vii, viii, ix, x).

14. Sea urchins. Arrangements will be made by the Manager with an appropriately qualified marine biologist for examination of urchin stomach content samples from the wreck and from a similarly turbulent non-wreck site to monitor sea urchin damage to ferrous material on the *Sirius* wreck site. Methodology will be developed and put into effect by NIMAA members for measuring urchin holes on sample sets of *in-situ* ferrous material and limestone, to provide a base-line as the means to ascertain any further urchin erosion in future years (reg vii, viii, ix, x, xi).

15. Information plaque. The underwater information plaque, mounted on a half-tonne concrete pyramid, and placed to the seaward of the concreted ring of the anchor recovered in 1973, has moved seaward and its location is not known. The Manager will arrange for NIMAA members to locate the pyramid and take a GPS reading. The visiting maritime archaeologist will make necessary arrangements for relocation, if necessary, of the plaque sufficiently seaward of the *Sirius* wreck by NIMAA members so as to not pose any threat to the site (reg i, ii, iii, vii).

16. Drone images. The manager will explore together with NIMAA the potential for using drones for obtaining vertical imagery of the *Sirius* wreck.

Collection management in the Protestant Chapel exhibition and Anson Bay off-site storage

1. Collection management. Material recovered from or associated with the *Sirius* will be conserved, housed and curated by the Manager in a professional manner which ensures:

- a) its long term conservation and protection
- b) its consistent and comprehensive documentation to ruling museum standards

- c) its adequate storage, as far as possible in one location
- d) the adequate display to the public of parts of the collection
- e) its access to bona fide researchers (reg i, ii, iii, iv, v, vi, vii, viii, ix, x, xi, xii)

2. Sirius Museum environment. The exhibited *Sirius* artefacts in the Protestant Chapel building (Sirius Museum) are at risk in their present location in an aggressive environment. The Commonwealth will ensure that the Sirius Museum is provided with a controlled environment. If it proves not to be feasible to fully protect the artefacts in the Protestant Chapel building through temperature and humidity control, exploration will be made of the alternatives, including a purpose-built facility (reg vi, vii, viii, ix, xii).

3. Sirius Museum environment. The Manager will obtain two new display cabinets for the cannon balls and scientific instruments as the current ones are repurposed items that are not of museum grade.

4. Collection monitoring. Reports on collection conservation have been conducted frequently (Acton 2008, 2010, Dalwitz 2016). However those collection conservation reports, unlike the Management Plans, are not directly linked to regulations. The consultant has only seen one of the reports on building conservation conducted for KAVHA by architects, Eric Martin and Associates (Martin 2012). The Manager will arrange with the Commonwealth for an inspection of the collection on exhibition and in storage at least every five years by a maritime archaeologist or conservator with experience of waterlogged materials, followed by a condition report to the Commonwealth. The collection has been recently valued according to the Commonwealth's actuarial standards (reg i, ix, x).

5. Collection security. The Manager will ensure that larger objects are provided with unobtrusive barriers to safeguard against knocks from visitors or equipment such as vacuum cleaners (reg ii, vii).

6. Collection integrity. The Manager will ensure that the collection of material recovered from the *Sirius* wreck site by the archaeological expeditions (with the exception of artefacts on loan) is kept together with that derived from all other sources as a collection on Norfolk Island (reg i, xii).

7. Collection integrity. The Manager will encourage private and government holders of *Sirius* material to pass this material on to the *Sirius* Collection (reg iii, vii, xii).

8. Records integrity. The Manager will ensure that as far as possible all *Sirius* records and archives on Norfolk Island, including reports of intervention and maintenance, are stored in one secure location. The Manager will maintain communication with the WAM regarding WAM files dealing with the *Sirius*, and investigate arranging for copies of all relevant documents to be accessible to the NIM (reg iii, viii, ix, x).

9. Digitised image collection. A digitised selection of images from the photographic collection, developed by the WAM during the expeditions run by the ABA, has been transferred from the WAM to the NIM. The Manager will ensure that this selection meets the requirements of the *Sirius* Collection on Norfolk Island and is made available to bona fide research requests.

The copyright of the pre-1988 section of the *Sirius* photographic collection belongs to the ABA (now its successor, the DoEE) and that of the 1988, 1990 and 2002 sections belongs to the NIM. In addition, photographs have been taken of artefacts temporarily held for conservation treatment at the WAM. These photographs have been catalogued and stored with the main *Sirius* photographic collection. The Manager will maintain communication with the WAM regarding images dealing with the *Sirius*, and investigate arranging with the WAM for further digital copies where necessary. (reg ii, iii, ix, x, xii).

10. Artefact register. The Manager will continue to maintain the register, initiated by the *Sirius* Project, of all material recovered from the *Sirius* site (reg x).

11. Conservation register. The Manager will continue to ensure that records are kept of all work done on the collection for purposes of conservation, research and display (reg x).

12. Training. NIM will become an organisational member of the Australian Institute for the Conservation of Cultural Materials Inc. (AICCM), ensuring that all material in the *Sirius* collection is conserved and preserved according to Code of Practice guidelines (reg vii, viii, x, xi).

13. Opening hours. The Manager will ensure that the collection and associated material is accessible to researchers and that the Museum is staffed and open to visitors at least five days each week (reg ii, iii, xi).

14. Disaster plan. The Manager will ensure that there is in place a current and relevant disaster management plan (reg i, ii, vii, viii, ix).

15. Integration of NIM with KAVHA. Under the 1990 MoU custody of the *Sirius* collection is with the NIM. The NIM (comprising the *Sirius* collection and exhibition) operates within the NIRC, funded by the Commonwealth through a service delivery agreement. The NIM is an integral part of KAVHA, functioning under a separate management structure resulting in increased reporting and operational obligations and disparate resourcing. The KAVHA HMP 2016 recommends developing proposals for the long term governance and funding of KAVHA. Initial discussions are giving consideration to the operations and requirements of the NIM within an integrated KAVHA management structure. However, if put into effect it will not be done in such a manner as to conceal or reduce the profile/identity of the HMS *Sirius* place, or reduce the Norfolk Island community's involvement with the place (reg i, ii, iii, vi, viii, x, xi, xii).

Interpretation and promotion

1. Exhibition. The Manager will ensure that the public continue to be told of the significance of the HMS *Sirius* place. There is a need for ongoing Sirius Museum interpretation of the underwater site, given the important role played by the *Sirius* in the colonisation of Australia, and the relative inaccessibility of the site itself, lying entirely underwater and situated in a hostile environment. There is a need to heighten public awareness of the existence of the wreck at Norfolk Island and the reasons for it being there, to familiarise the public with the debate about the British motivation for colonisation and the ways in which the *Sirius* site might influence that debate, and to develop public awareness of the important role of Norfolk Island in the initial British colonisation plan (reg i, xi, xii).

2. Interpretive materials. To increase public awareness of the site the Manager will encourage the production and availability at the Sirius Museum of interpretive materials to increase public awareness of the site, of the role played by the *Sirius* in the colonisation of Australia, and more specifically that of Norfolk Island. The *Sirius Past and Present* book (Henderson and Stanbury), written in 1988 before much of the excavation and research, is now out of print and could do with a revised edition. Currently HMS *Sirius* is not singularly represented in the books on sale, so the Manager will arrange for the production of a booklet utilising the information from the Sirius Museum exhibition panels together with some of the digital images. Also, the Manager will explore opportunities to produce a short publication on the identity of the hatchet found among the shingle ballast (reg iii, viii, xii).

3. Signage above water. The clock-face information plaque on the seawall in front of the prison compound is in poor condition and (if construed as a pointer to the wreck site) points to the wrong location. It should be removed or relocated to the correct positioning. The sandwich board sign placed in front of the Sirius Museum during opening hours, indicating 'Norfolk Island Museum' in large text and 'Sirius Museum' in smaller text, will be replaced with signage providing greater recognition of the Sirius Museum's location (reg i, ii, iii, xii).

4. Website. There is an increasing use of online information by the general community. A website provides the opportunity for promotion and awareness raising of the place, and is a platform for promoting new research ideas, activities and interpretations about the place. To increase awareness of the *Sirius* wreck site place the Manager will investigate reinstating a website dedicated to the HMS *Sirius*.

5. Opening times. Cruise ship stopovers now provide opportunities for substantially increasing visitor numbers at the Sirius Museum. The Manager will ensure visitors have access on cruise ship days (reg ii, xii).

6. The Manager will investigate the implementation of the community-meeting suggestion that visitor awareness of the significance of the HMS *Sirius* place would be enhanced with the provision of an audio visual at the Tourist Information Centre in Burnt Pine.

Research

Funding for the following ideas is to be sourced in addition to the Commonwealth's service delivery agreement with NIRC or the Historic Shipwrecks Programme.

1. Continued archaeological investigations on the *Sirius* site have the potential to answer important questions about the ship which in turn have bearing upon the debate about the original British motivation for colonisation of Australia. New research has the potential to enhance values 1 and 2 of criterion (a), and values 1, 2, and 3 of criterion (h) (reg h xi, xii).
2. Thorough exploration of the archival records has the potential, firstly, to ascertain what changes were made to the *Sirius*' ballasting between its departure from England and its running onto the reef at Norfolk Island, and secondly, to illustrate clearly the effect on the vessel's loss on the colonies in New South Wales and on Norfolk Island. As recommended in the 1985 Report to the ABA, the Manager and the Commonwealth will encourage arrangements for examination of the relevant records at the Library of New South Wales (reg h xi, xii).
3. Need for broad archaeometric studies. Metallurgical/chemical analyses of selected ships' fittings, fastenings and sheathing samples from the *Sirius* relating to the condition of the ship have the potential to provide further light on the motivation of those responsible for sending the First Fleet (reg h i, ii, iii).
4. See also section 3.13 Areas for Further Research.

Review

As required by the EPBC Act s341X the Manager will arrange with the Commonwealth for the 2018 Plan to be reviewed within five years (before the end of 2022), or more frequently if the Commonwealth heritage values of the place change, or major changes are proposed.

8.2 Implementation Plan for 2018-2022

The financial resources applied by the NIM to improve the recognition of the heritage and the management of the heritage values of the *Sirius*, including maintenance and conservation works, are provided by the Commonwealth through a service delivery agreement with the NIRC. In addition, the Historic Shipwrecks Program provides annual funding of \$20,000, and other Commonwealth Grants may be applied for.

The Manager will at all times implement the Commonwealth and National Heritage Management Principles as they apply to the *Sirius* place.

HMS *Sirius* wreck site management and conservation

1. Site Monitoring. The Manager will arrange with the Commonwealth to fund an inspection visit to the *Sirius* site during the 2019/20 financial year by a maritime archaeologist and a

conservator acquainted with the site, followed by a condition report to the Commonwealth. Site inspections will include observation of the gullies for movement and exposure/damage to small artefacts in shingle ballast. Priority 1

2. Protective anode placement. During the during the 2019/20 financial year visit the maritime archaeologist and the conservator will work together with suitably trained and equipped NIMAA members to construct and attach anodes (such as engine blocks) to the ballast mound and reef. The work will be done on scuba from an anchored boat on days when sea conditions are appropriate. Equipment costs and other costs will be supplied by the Manager. Priority 1

3. Training. During the 2019/20 site monitoring visit the conservator will provide NIMAA members with information and training on the monitoring of the anodes in regard to their reduction in corrosion rates, and for their maintenance and replacement. This will also ensure that the anodes do not in themselves pose a hazard to artefacts on site by breaking away from their attachments in a destructive manner (reg h i, vi, viii). Priority 1

4. Anode inspection. During 2020/21 the Manager will arrange for suitably trained and equipped NIMAA members to inspect the sacrificial anode annually and after major storm events. Priority 1

5. Implementation Monitoring. For the monitoring of policy implementation the Manager will maintain a schedule of required actions. The schedule (See Appendix 1.) will be kept in the Manager's office for easy access. Priority 1

6. Skype. Skype will be made available during 2018/19 by the Manager for NIMAA members to annually discuss conservation with appropriate specialists. Priority 2

7. Protection from Damage. During 2018/19 the Manager will inform and maintain communication with local Inspectors under the HSA and arrange for an awareness-raising notice to be put on the NIM website and blog, Facebook, and on the NIRC website and KAVHA website, acknowledging the existing respect by the fishing club, board-riders and divers in not interfering with the wreck site, and asking boat owners not to anchor inshore from the underwater information plaque. Priority 2

8. Unforeseen discoveries or disturbance. If an item is identified as being from the *Sirius* it will be registered into the collection and given appropriate conservation treatment. If a breach of the HSA is suspected, the Manager will alert an Inspector and the responsible DoEE officer. Priority 2

9. Underwater Information Plaque. During 2019/20 the manager will arrange for NIMAA members to locate and reposition the pyramid and take a GPS reading. Priority 2

10. Sea Urchins. During 2020/21 the Manager will arrange with NIMAA members and an appropriately qualified marine biologist for examination of the stomach content of an

urchin, removed from ballast on the wreck site and from a similarly turbulent non-wreck site, to monitor sea urchin damage to ferrous material on the *Sirius* wreck site. Methodology will then be developed and put into effect by NIMAA members for measuring urchin holes on sample sets of *in-situ* ferrous material and limestone, to provide a base-line as the means to ascertain any further urchin erosion in future years. Priority 2

Collection management in the Sirius Museum located in the former Protestant Chapel and Anson Bay off-site storage

1. Sirius Museum Environment. During 2018/19 and 2019/20 the Manager will obtain new display cabinets because the current ones are repurposed items that are not of museum grade. As recommended on the 1993 Plan the storage cabinets will be 'Perth Cabinets' (manufactured by Joyce Australia, 8 Forsyth St O'Connor WA 6163) or a similar product. Priority 2

2. Iron ballast and cannon balls. During 2019/20 the Manager will discuss the apparent deterioration with a conservator experienced in conserved waterlogged iron and if appropriate arrange for the cannon balls in the collection to be placed back into a 20 gram per litre caustic soda solution and left there for about a year with one change after 4 months and a second change after the year is out then washed in tap water and retreated (pers comm Ian MacLeod). Priority 2

3. Exhibited anchor. During 2018/19 the Manager will arrange for the white mould on the anchor to be removed by swabbing it with water as it is just sodium carbonate that has formed as air borne CO₂ has reacted with residual caustic in the interstices (pers comm Ian MacLeod). Priority 2

4. Collection inspection. The Manager will arrange with the Commonwealth for an inspection during 2019/20 of the collection (on exhibition and in storage) by a conservator with maritime experience, followed by a condition report to the Commonwealth. Priority 1

5. Collection security. During 2018/19 the Manager will ensure that larger ferrous objects in the Sirius Museum are provided with measures to safeguard against knocks from visitors or equipment such as vacuum cleaners. Priority 1

7. Collection Integrity. During 2018/19 the Manager will place information on the NIRC website to encourage private and government holders of *Sirius* material to pass this material into the *Sirius* Collection and register material as per the document <http://www.environment.gov.au/heritage/historic-shipwrecks/possessing-exporting-historic-shipwreck-relics> . Priority 2

8. Records integrity. By the end of 2020 the Manager will ask Myra Stanbury (previously running the maritime archaeology collection management at the WAM) for a scoping brief

of the work involved in obtaining for the Sirius Museum copies of the relevant *Sirius* Project files in Western Australia, with a view to contracting out the copying work. Priority 2

9. Digitised Image Collection. By the end of 2020 the Manager will ask Patrick Baker (previously in charge of maritime archaeological photography at the WAM) for a scoping brief of the work involved in obtaining for the Sirius Museum digital copies of the remaining relevant images in Western Australia, with a view to contracting out the copying work. Priority 2

10. Training. During 2018 the NIM will become an organisational member of the Australian Institute for the Conservation of Cultural Materials Inc. (AICCM). NIM Collections Officer will undertake preservation technique training with casual staff and attend an internship at the ANMM with a focus on conservation. Priority 2

11. Disaster Plan. During 2019/20 the Manager will ensure that there is in place a current and relevant disaster management plan. Suitable consultants are available to develop a relevant Disaster Management Plan for the museum and collections. Priority 2

Interpretation and promotion

1. Interpretive Materials. During 2020 the Manager will produce a booklet utilising the information from the Sirius Museum exhibition panels together with some of the digital images. By 2022, the Manager will have investigated producing a short publication on the identity of the hatchet found among the shingle ballast, and a revised edition of the book *Sirius Past and Present*. Priority 2

2. During 2019/20 the Manager will investigate the development and provision of an audio visual dealing with the *Sirius* place to be available for use in the Tourist Information Centre and other locations in Burnt Pine. Priority 2

3. Signage above water. During 2019/20 the Manager will arrange repositioning or removal of the clock face information plaque on the seawall and replacement of the sandwich board with one displaying the words 'Sirius Museum' prominently. Priority 2

4. Website. During 2020/21, to increase awareness of the *Sirius* wreck site place, the Manager will investigate reinstating a dedicated Sirius Museum website. Priority 2

5. Opening times. During 2018/19 the Manager will ensure public access to the Sirius Museum during the days and shore visiting hours of tourists from visiting cruise ships. Priority 2

Research

1. Archaeometric studies. During 2018-22 the Manager will facilitate access to researchers carrying out analysis on selected ship's fittings, fastenings and sheathing samples from the *Sirius*. Priority 2. This depends on external funding.

Review

As required by the EPBC Act s341X the management plan will be reviewed within five years (that is, before the end of 2022), or more frequently if the Commonwealth Heritage values of the place change, or major changes are proposed. The Manager will communicate with the Commonwealth in 2021 regarding the initiation of the next review. The Commonwealth will fund the review. The review will be conducted along the same lines as the 2018 review and include inspection of the *Sirius* wreck site and the *Sirius* Collection.

8.3 Who is responsible for implementing the conservation policies

The Manager is responsible for the implementation of the conservation policies. The Manager as intended in the 1993 Plan was the Administration of Norfolk Island, now NIRC. The Team Leader Heritage Management, NIRC (the Manager), has been directed, by the Minister for the Environment and Energy to act as the Delegate on Norfolk Island under sub-sections 10(1), 11(1) and section 15 of the HSA. The Inspectors under the HSA are the Federal Police based on the island.

9 Appendices

9.1 Implementation Monitoring: schedule of required actions.

	Date	Required Action
1	2018+	Commonwealth and National Heritage Management Principles as they apply to the <i>Sirius</i> place. The Manager to implement the principles.
2	2018+	Implementation monitoring. Manager to maintain this schedule of required actions.
3	2018+	Ballast mound. Manager will ensure that it is left without disturbance.
4	2018+	Building environment. The Commonwealth will seek to ensure that the <i>Sirius</i> Museum is provided with a controlled microenvironment, in the form of temperature and humidity controlled salt-free display cabinets and building interior. If it proves not feasible to protect the artefacts in the Protestant Chapel building through temperature and humidity control of the environment, exploration will be made of the alternatives, including a purpose-built 'green' facility.
5	2018	NIM membership of AICCM. Manager to arrange.
6	2018	Collection Officer to undertake preservation training with casual staff.

7	2018	Collection Officer to attend conservation internship at ANMM.
8	2018/19	Skype for discussions with archaeologists and conservators. Manager to arrange.
9	2018/19	Protective screens for vulnerable exhibits. Manager to arrange.
10	2018/19	Public access during cruise ship visits. Manager to ensure.
11	2018/19	Retreatment of cannon balls. Manager to arrange.
12	2018/19	Removal of white mould from exhibited anchor. Manager to arrange.
13	2018/19	Holders of <i>Sirius</i> material. Manager to encourage passing into the collection.
14	2018/19	Inspectors. Manager to maintain communication for site protection.
15	2018/20	New display cabinets. Manager to obtain.
16	2019/20	Collection inspection and condition report by conservator. Manager to arrange
17	2019/20	Conservation advice from conservator on waterlogged iron objects. Manager to arrange.
18	2019/20	Site inspection visit and site condition report by archaeologist. Manager to arrange.
19	2019/20	Anode placement on site. Manager to arrange.
20	2019/20	Training. Manager to arrange for NIMAA volunteers for anode monitoring.
21	2019/20	Information plaque. Manager to arrange relocation.
22	2019/20	Provision of <i>Sirius</i> audio visual in Tourist Information Centre. Manager to investigate.
23	2019/20	Replacement of inappropriate signage. Manager to arrange.
24	2020/21	Reinstating of <i>Sirius</i> Museum website. Manager to investigate.
25	2020/21	Annual anode inspections by NIMAA members. Manager to arrange.
26	2020/21	Examination by a marine biologist of sea urchin stomach contents. Manager to arrange.
27	2020/21	Scoping brief for copying relevant WAM <i>Sirius</i> document files. Manager to arrange.
28	2020/21	Scoping brief for copying relevant WAM image files. Manager to arrange.
29	2020/22	The Manager will arrange with the Commonwealth for the writing, production and distribution of a publication specifically dealing with the hatchet head found on the <i>Sirius</i> wreck site.
30	2020/21	Production of <i>Sirius</i> booklet. Manager to arrange.

31	2021/22	Production of revised edition of <i>Sirius Past and Present</i> . Manager to arrange.
32	2021/22	Communication with Commonwealth to initiate Review of Management Plan. Manager to arrange.

9.2 Meeting about the *Sirius* Management Plan with Norfolk Island Community, held at the Historical Society premises, 30 November 2017.

Notes by Janelle Blucher.

Community Meeting - Input on *Sirius* Management Plan

Suggested themes for discussion -

Stories / Opportunities and constraints / Educational opportunities

Accessible / Awareness / Research potential / Interpretation / Protection

Publications / promotion initiatives / exhibitions / cruise ship market

Rare and uncommon aspects of First Fleet

Questions / Discussion

On objects held in other institutions and in private collections

Any objects on loan from the *Sirius* Collection are managed with official loan agreements between the Norfolk Island Museum and the loaning institution. The only current loan agreement is with the ANMM in Sydney.

Other objects held in private collections known to be *Sirius* material are protected by the PMCH Act Control list specific to Norfolk Island includes *Sirius* material.

Sirius material is known to be held in private collections on the island. People in possession of *Sirius* material are encouraged to contact the Museum so we can document the object and offer advice for its preservation and undertake conservation if necessary. This has occurred in the past.

NIM have promoted and encouraged community members in possession of *Sirius* material to register their objects with us as the agency or online through the Historic Shipwrecks Program <http://environment.gov.au/heritage/grants-and-funding/historic-shipwrecks-program> .

Community are assured that this does not mean they lose custody of an object. It is simply registered and documented so provenance isn't lost through the generations. We are also

more than grateful to accept *Sirius* material back into the collection to keep it together for future generations.

Macquarie Place anchor - is it registered as a part of the *Sirius* Collection?

Can we be assured the Sirius Collection will remain on Norfolk Island?

It is understood there is no sentiment for the *Sirius* Collection to be removed from Norfolk Island from any stakeholders. The NIRC Heritage and Culture Strategy recommends that the collection remains on the island. The NIM Trust advocates for the collection to remain on the island. The 1993 *Sirius* Management Plan states that the collection remains displayed close to the wreck site. – Recommendation made to advocate for Legislation to ensure the collection remains on Norfolk Island.

Interpretation and visitor awareness of HMS Sirius wreck site, association with Norfolk Island and Museum

Museum – location needs more obvious identification/signage. Suggested using larger text in signs.

Awareness for visitors to the island should be provided through an interpretation tool in town – Recommendation to develop an audio/visual for the purpose of developing interest and encourage visitation to the museum. This could occur in an available space in town; most appropriate space is in the Tourist Information Centre. Using the selection of images taken during the 1980's *Sirius* Project. Another suggestion was to develop an interpretation centre in town using the old Post Office building, this would require a range of display material in addition to the audio/visual to fill the space.

Suggested another publication on HMS *Sirius* be produced and possibly a documentary to compliment the 1980s *Search for the Sirius* documentary. Awareness could also be increased by having a basic flyer promoting the *Sirius* at the airport for visitor arrivals.

Guard House (Pier precinct) redevelopment as an interpretation space- If the Guard House is later used as a theatre promoting the KAVHA site the *Sirius* should be promoted as part of that audio visual presentation.

Oral Histories – gather stories from the locals involved in all aspects of the 1980's *Sirius* Project

Collections online – recommended placing collections online for greater accessibility – consider exploring opportunities. Note: that the HMS *Sirius* story and relics, including images, is featured in detail on the ANSDB website.

<https://dmzapp17p.ris.environment.gov.au/shipwreck/public/wreck/wreck.do?key=7956>

Greater interpretation of the site – booklet for sale

Site surveying and monitoring and preservation- include as a recommendation in Management Plan Photogrammetry may be a method to undertake site monitoring / investigate funding and training of Norfolk Island Maritime Archaeological Association (NIMAA) to undertake the site monitoring.

Train NIMAA to undertake site preservation activities – including, but not limited to, attaching sacrificial anodes to ballast blocks or other objects to stabilise in situ. It is noted that accessibility to site is difficult as the location is extremely turbulent most of the time.

10. Abbreviations

ABA: Australian Bicentennial Authority

Burra Charter: *The Burra Charter: The Australia ICOMOS Charter for Places of Cultural Significance, 2013.*

CHL: Commonwealth Heritage List

DoEE: Australian Government Department of Environment and Energy

EPBC Act: *Environment Protection and Biodiversity Conservation Act 1999*

EPBC Regulations: *Environmental Protection and Biodiversity Conservation Regulations 2000*

HSA: *Historic Shipwrecks Act 1976*

KAVHA: Kingston and Arthurs Vale Historic Area

KAVHA HMP: KAVHA Heritage Management Plan

Manager: Team Leader Heritage Management, Norfolk Island Regional Council

NHL: National Heritage List

NIMAA: Norfolk Island Maritime Archaeological Association

NIRC: Norfolk Island Regional Council

PMCH Act 1986: *Protection of Movable Cultural Heritage Act 1986*

PMCH Act 1987: *Protection of Movable Cultural Heritage Act 1987*

WAM: Western Australian Museum

1993 Plan: Plan of Management for HMS *Sirius* wreck, wreck site and relics

2001 Convention: *UNESCO Convention on the Protection of the Underwater Cultural Heritage*

2018 Plan: this amended Management Plan

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13. Schedule A – Management Plans for National Heritage Places.

A management plan must:

- (a) establish objectives for the identification, protection, conservation, presentation and transmission of the National Heritage values of the place; and (see sections 1.31, 2.1)
- (b) provide a management framework that includes reference to any statutory requirements and agency mechanisms for the protection of the National Heritage values of the place; and (see section 6.2)
- (c) provide a comprehensive description of the place, including information about its location, physical features, condition, historical context and current uses; and (see sections 2.2, 3, 4)
- (d) provide a description of the National Heritage values and any other heritage values of the place; and (see sections 1.2, 2.3, 5)
- (e) describe the condition of the National Heritage values of the place; and (see section 4)
- (f) describe the method used to assess the National Heritage values of the place; and (see sections 5.3, 5.4, 2, 2.4)
- (g) describe the current management requirements and goals, including proposals for change and any potential pressures on the National Heritage values of the place; and (see sections 1.1, 1.3, 2.1, 3.9, 3.12, 3.13, 5.3, 5.4, 5.5, 6.1, 6.3, 6.4)
- (h) have policies to manage the National Heritage values of a place, and include, in those policies, guidance in relation to the following:
 - (i) the management and conservation processes to be used; (see sections 7.1, 7.2)
 - (ii) the access and security arrangements, including access to the area for indigenous people to maintain cultural traditions; (see sections 7.1, 7.2)

- (iii) the stakeholder and community consultation and liaison arrangements; (see sections 2.4, 6.1, 7.1, 7.2 and Appendix 2)
- (iv) the policies and protocols to ensure that indigenous people participate in the management process; (see sections 1.31.6, 5.2.7)
- (v) the protocols for the management of sensitive information; (see section 5.5)
- (vi) the planning and management of works, development, adaptive reuse and property divestment proposals; (see sections 1.1, 6.41, 8.2)
- (vii) how unforeseen discoveries or disturbance of heritage are to be managed; (see sections 7.2, 8.1)
- (viii) how, and under what circumstances, heritage advice is to be obtained; (see section 6.5)
- (ix) how the condition of National Heritage values is to be monitored and reported; (see sections 1.31.7, 1.32.2, 3.13.5, 4.31, 6.1.7, 6.2.7, 7.1.5, 7.2, 8.2)
- (x) how records of intervention and maintenance of a heritage places register are kept; (see sections 2.1, 3.8, 7.2, 8.1, 8.1.5, 8.1.13, 8.2).
- (xi) the research, training and resources needed to improve management; (see sections 1.2, 1.34, 3.12, 3.13, 6.1, 7.2, 8.1, 8.2)
- (xii) how heritage values are to be interpreted and promoted; and
- (i) include an implementation plan; and (see sections 6.1, 6.4, 7.2, 8.2)
- (j) show how the implementation of policies will be monitored; and (see sections 1.31, 1.32, 3.13, 4.31, 7.1, 7.2, 8.1, 8.2)
- (k) show how the management plan will be reviewed. (see sections 1.31, 2.4, 7.2, 8.2)

14. Schedule 5B – National Heritage Management Principles

- 1 The objective in managing National Heritage places is to identify, protect, conserve, present and transmit, to all generations, their National Heritage values. (see sections 1.31.1, 2.1)
- 2 The management of National Heritage places should use the best available knowledge, skills and standards for those places, and include ongoing technical and community input to decisions and actions that may have a significant impact on their National Heritage values. (see sections 7.1.8, 7.1.9, 7.2, 8.2)
- 3 The management of National Heritage places should respect all heritage values of the place and seek to integrate, where appropriate, any Commonwealth, State, Territory and local government responsibilities for those places. (see sections 1.1, 2, 2.4, 7.2)
- 4 The management of National Heritage places should ensure that their use and presentation is consistent with the conservation of their National Heritage values. (see section 1.31, 2.4, 6.1, 7.2, 8.2)

- 5 The management of National Heritage places should make timely and appropriate provision for community involvement, especially by people who:
 - (a) have a particular interest in, or association with, the place; and
 - (b) may be affected by the management of the place. (see sections 1.31.2, 1.31.5, 2, 2.4, 6.1.14, 7.2, 8.2)
- 6 Indigenous people are the primary source of information on the value of their heritage and the active participation of indigenous people in identification, assessment and management is integral to the effective protection of indigenous heritage values. (see sections 7.1, 7.2)
- 7 The management of National Heritage places should provide for regular monitoring, review and reporting on the conservation of National Heritage values. (see section 8.2)