



Technical Report

Report No. SYD/2021/04

At the request of the NSW Department of Planning, Industry & Environment – Crown Lands, the undersigned prepared this report from information gained from a review of a report prepared on the 29th April 2021 by McLennan's Diving Service. This is following their underwater inspection carried out on April 14th, 15th, 16th and a further inspection 26th May 2021 following a notification by a diver of recent damage to the vessel Ex-HMAS Adelaide where she rests following the vessel's scuttling.

The vessel's details are:

Ship name:	Ex-HMAS Adelaide
Displacement Tonnage:	2954.90 tonnes
LBP:	407ft
Breadth Moulded:	47ft

1. Introduction

Ex-HMAS Adelaide is a former guided missile armed frigate (FFG) decommissioned from the Royal Australian Navy. The vessel was scuttled at a position off Avoca, New South Wales on 13th April 2011 to create an artificial reef for scuba diving.

An underwater inspection of the wreck is carried out annually. The latest inspection was carried out as mentioned above, in April 2021, by McLennan's Diving Service. A subsequent underwater inspection was carried out by McLennan's Diving Service following a report by a diver that there was recent damage to the vessel in way of the hanger structure.

2. Report

From the initial diver's report, the underwater inspection of the vessel found that the steel hull structure was substantially unchanged since the previous underwater inspection which was carried out February/March 2020.

No corrosion, cracking or displacement of fittings was observed on the outside or inside of the steel hull. All entrance ways inspected were found clear.

All the long-term monitoring points were again inspected, and it was reported that no deterioration was found since the last inspection. These points are in way of:

- the Missile launcher opening,

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- the Forward screen,
- the Hangar frames, and
- the stern

The diver's report indicates that the hull is still fully supported by the sand. The report states the sand level was very similar to previous years with the sand being very close to the vessel's design waterline. This is similar to that reported in previous years.

The vessel developed a 4-degree list to port in 2012. The divers confirmed that this list remains unchanged.

The diver's report states that the aluminium superstructure continues to suffer from deterioration. The divers did report that there were no new areas of cracking or panel breakouts since their last interim inspection in December 2020. They found that several fittings that had been attached to a bulkhead were loose and were near an entrance amidships, so they removed these and dropped them to the seabed.

The damage noted in the report prepared after the underwater inspection carried out on 26th May 2021 indicated that there was substantial damage to the port hanger side shell plating and stiffeners together with the port hanger deckhead and stiffeners. The hanger deckhead is also 02 deck. The damage extending in both cases the full length of the port hanger.

This hanger structure is aluminium and does not contribute to the structural strength of the vessel.

The divers took video and still photographs of the damaged areas. From these it seems the deckhead on the port side of the hanger structure has collapsed and the port side plating has broken away. As with previous reports it would appear the light aluminium structure is continuing to deteriorate, but the main support structure is still intact. This does not affect the structural integrity of the vessel.

3. Conclusion

As mentioned in my previous reports It is my opinion that, the vessel is still structurally sound, and the vessel is stable. However, as with my previous reports, the light aluminium structure in way of the accommodation and hanger decks is continuing to deteriorate. It is my opinion that this deterioration will continue as the plating continues to break away from its supports thus allowing it to move with the currents and the weather. It is also my opinion that the corrosion of the aluminium plating will continue as the light structure continues

to work in the seaway. This area is also in the upper region of the vessel so in the area were the seawater becomes aeriated in adverse weather.

It is recommended that the damaged areas of the port hanger should be cut away to make the area safe for recreational divers. Though as mentioned previously the Dive Masters should take precautions when taking divers near the damaged accommodation structure.

4. Disclaimer

The under signed shall not be liable in any way to any person or company in respect to any claim for any kind, including claims for negligence, for loss occasioned to any person or company in consequence of any person or company acting or refraining from action as a result of material in this report.

Signed,



L. H. Michaels
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for Shearforce Maritime Services Pty. Ltd.
07th June 2021