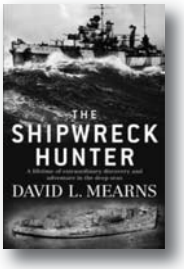
BOOK REVIEW:

The shipwreck hunter: a lifetime of extraordinary discovery and adventure in the deep seas



by David L. Mearns

Allen & Unwin: Sydney; 2017; 400 pp.; ISBN 9781760295219 (paperback); RRP $32.99
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Quite simply, this is an excellent book, which will appeal to a general readership not necessarily interested in the sea. Featuring the World War II cruiser HMAS *Perth* on its cover, Australians will find inside the story of finding the long-lost wrecks of the cruiser and its nemesis, the German raider *Kormoran*, both sunk in battle off the Western Australian coast in November 1941. David also describes his adventures in locating the wreck of the Australian hospital ship *Centaur*, sunk by a Japanese submarine – in defiance of the rules of war – near Moreton Island Queensland in 1943. He was awarded an honorary OAM in 2010 for his work.

However, David's book is much more than that. He describes the unlikely entry of a New Jersey boy into the specialised world of shipwrecks through marine biology post-graduate studies at the University of Southern Florida. Introduced to the amazing underwater world revealed by side-scanning sonar, a deep-water cruise capped off his studies and led to his hiring by the marine salvage company that had had a key role in recovering the wreckage of the space shuttle *Challenger* in 1986. Military demands drove the development of ever more sophisticated and deep-diving remotely operated vehicles (ROVs) to recover objects from the sea floor, but there was little impetus to improve the detection technology. That changed when David's employer won the contract to search for a ship deliberately sunk in a fraud case in deep water off the Maldives Islands. In just five months, David and his team bought and built the equipment to search at 4000-metre depths.

As David reveals, the first of three main issues in finding a shipwreck – repeatedly stressed – is to look in the right place. Easier said than done, readers will be impressed by the depth (no pun intended) of research involved in finding the targets and David's persistence in testing all the evidence, including official records. When there is little evidence or even widely divergent opinions – as in the case of *Sydney/Kormoran* – making the decision on the search area is a crucial one, affecting not only the client and the contractor, but also those with personal involvement. It seems to be worse to fail to find the wreck than not to try.

The second issue is technology. The best (and most expensive) is not necessarily the enemy of the 'good enough', but the sonar pod, 'flown' well behind the towing ship and crucially dependent on the integrity of the tow cable, has got to be reliable and robust enough for the conditions in which it is to be used. Those familiar with employing maritime technology will sympathise with David's description of 'one of those days' when everything that could go wrong did and his sonar had to be practically rebuilt from scratch – as the clock ticked, and heave a sigh of relief as his team gingerly recover the tow as its cable's steel outer cover starts disintegrating. They will also agree with David's observation that 'The one thing you can count on at sea is that when everything starts to turn against you, bad weather will arrive to really compound the problems'.

The third issue is the planning and conduct of the search. Coaxing the sonar pod to fly accurately along the planned track while it is several miles behind the towing ship requires both excellent control and good seamanship. When the sea floor is ridged with significant 'hills', ensuring the towed body safely clears them adds another dimension of concern. A collision not only means the loss of an expensive tool but the end of the search.

Early in his shipwreck finding career, David recognised that, in most cases, he would be dealing with loss of life, sometimes very significant. Thousands of men died in the sinking of ships like HMS *Hood*, the German battleship *Bismarck*, and in *Sydney/Kormoran*, but his most poignant case was the disappearance of the very large bulk carrier MV *Derbyshire* south of Japan in a typhoon in 1980. There were no survivors from the 44 people onboard and it took 14 years of lobbying of government by their relatives to launch an attempt to discover why she sank. David and his team were shocked by the disintegration of this huge ship their cameras discovered, and the analysis of the cause of her loss was even more chilling. As the crew located in the after superstructure must have watched, their ship filled with water from the bows as its hatch covers were successively smashed by the waves until she was no longer buoyant and she broke up and crashed to the sea floor. As he has on most wrecks, David laid a memorial plaque on behalf of the grieving families.

David Mearns writes of complex adventures in the application of high-technology in challenging environments, but in an easy style without jargon – an enjoyable reading experience. Just as shipwrecks connect us to our past, finding them has pointed the way to ever more uses for the technology in enhancing our knowledge of the planet. I commend David's book to all to explore with him the undersea world around us.

Ian Pfennigwerth