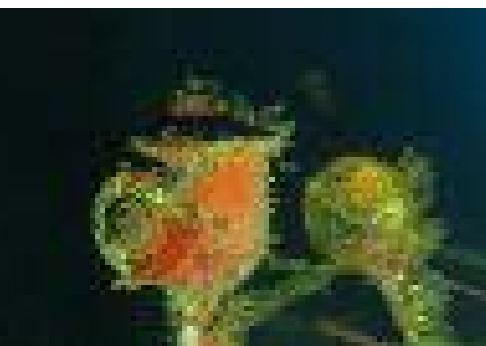


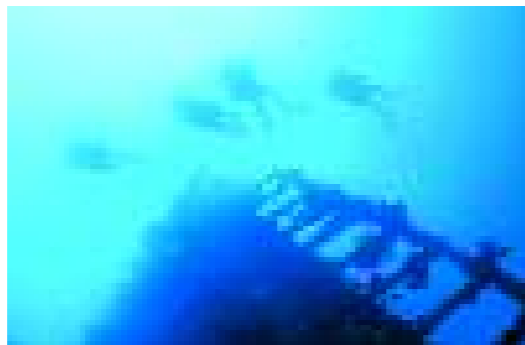
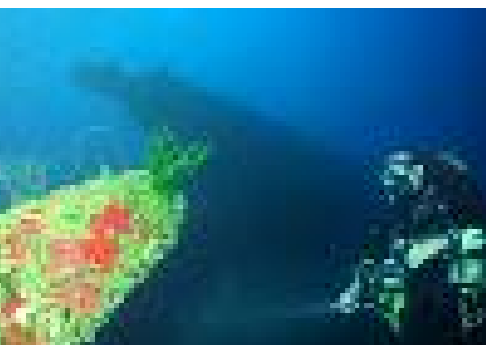
KISS



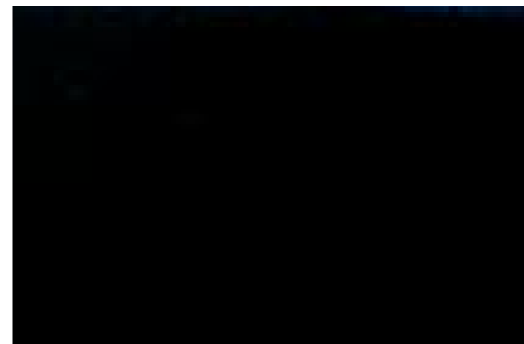
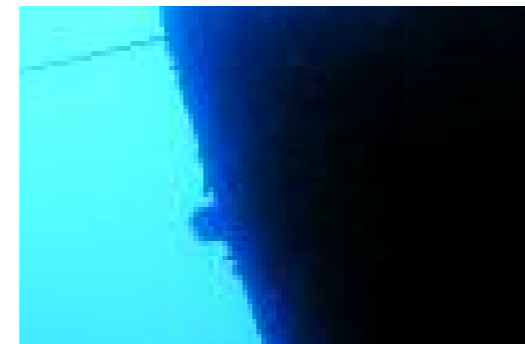
VANUATU'S SS COOLIDGE HAS LONG BEEN A BIG DRAWCARD FOR TRAVELING DIVERS, AND MANY ARTICLES HAVE BEEN WRITTEN ABOUT HER. BUT UP ON ESPIRITU SANTO, 'TIMES THEY ARE A-CHANGIN'. RICHARD (HARRY) HARRIS HAS TAKEN HIS CAMERA DOWN TO THE 'DEEP END' OF THE COOLIDGE ON HIS MIXED GAS CLOSED CIRCUIT REBREATHING (CCR) TO CAPTURE A STORY AND SOME GREAT DIGITAL IMAGES.



THE LADY



∴ RICHARD HARRIS



Not another article on the Coolidge! Everyone who's anyone has been there and done that. Many have seen the Lady, checked out the engine room, the pool and even had a quick peek at the stern on one of those scary single tank air dives of old! But those days are numbered. A spate of accidents, some unhappy insurance companies and a need to contemporize their philosophy, led the local dive industry to introduce the Vanuatu Scuba Operators Association Code of Practice. Amongst other things, this introduced a maximum air diving depth of 60 metres (still generous you might suggest!) and recommendations about repetitive dive profiles, twin tank usage and accelerated decompression using nitrox. This fundamental change in approach has vastly improved the 'cowboy' image that Coolidge diving was developing.

I first dived the SS Coolidge in 1994 and like many before me, spent a week working my way down the wreck, culminating in a 70 metre bounce to the stern on air. I recalled little of the dive and returned to the boat uncertain to whether to feel like a bit of a legend or a complete idiot. I suspect I know the answer to that one now! I returned to the wreck last year, limiting my air dives to a much more comfortable 55 metres with twin tanks. Now I'm fortunate enough to call Vanuatu home for at least two years. This has given me the opportunity to focus on doing some 'clear headed' mixed gas diving with the KISS CCR. And boy, what a different place it is down there when you are not off your nut on nitrogen!

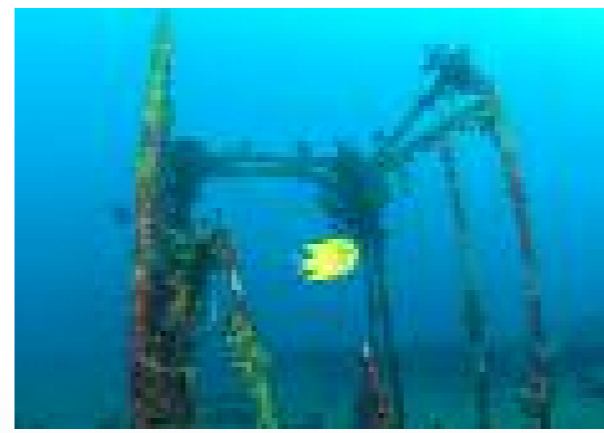
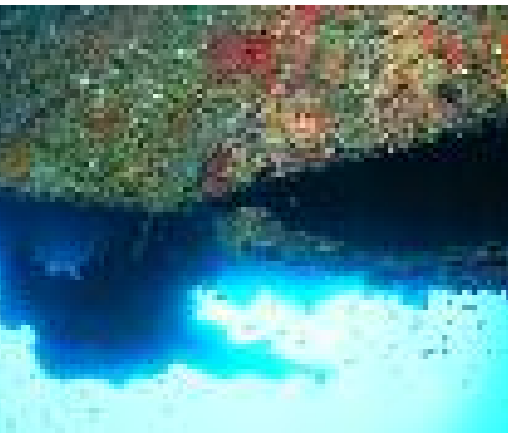
Barry Holland at Aquamarine has become an invaluable partner in my quest to explore and photograph the stern area of this massive ship. He's a TDI trimix instructor and has done thousands of dives on the wreck. Aside from the legendary Allan Power, Barry knows the ship as well as anyone. His passion for technical diving makes him the logical choice for any visitors who wish to dive beyond recreational air limits. Barry and I have a small cache of helium in Luganville, which goes a long way in the two litre diluent tank on the KISS.

I'm not the first guy to dive CCR on the Coolidge but I'm surprised by the lack of images I've seen taken down past the swimming pool. Combining the task

loading of a deep dive with underwater photography isn't for everyone, and when problems arise the camera is obviously the first thing to be ignored. But persistence is the name of the game in UW imaging, so over the course of numerous dives I was able to collect a series of images from the section of the wreck between 55 and 70 metres.

The gear: All images in this article were created on a Nikon D100 using either the 16mm f2.8 Nikkor fisheye, or the new Nikkor 12-24DX wide-angle zoom lens with a +4 diopter. Housed in the D10 Subal housing with the small fisheye port, and illuminated either by natural light or with Nikonos SB-105 strobes. All were shot on manual at either ISO200 or 400 with white balance on auto. Despite the buttons on the Subal housing sometimes being squashed down at depth, the assembly never flooded or misbehaved despite the fact that the dome port is rated to only 60 metres. With short times at maximum depth of around 10-15 minutes, some pre-visualisation of shots was useful, and as Barry sometimes carried a slave strobe for me, a discussion of tactics was important between the dives. I've started to try Leigh Bishop's tripod technique for long exposures, but results are coming slowly!

The KISS mixed gas CCR: A relative newcomer to the rebreather scene, the simplicity and competitive pricing of the KISS is developing a strong following. Mine is KISS #80, and was the third one to be imported into Australia. Developed by Gordon Smith at Jetsam Technologies in Canada, it appeals to those who shy away from electronically controlled rebreathers. It requires the diver's computer (brain) to activate a solenoid (diver's hand) to open an oxygen injection valve (manual over-ride on the KISS oxygen valve) to maintain the desired PO2 in the breathing loop. Between manual additions, the orifice in the KISS valve allows a continuous jet of oxygen to enter the loop which slows the decay of the oxygen levels within. The flow of oxygen depends on the diameter of the orifice (fixed), the intermediate pressure of the Apex first stage regulator (also fixed but adjustable before the dive), and the ambient pressure (increasing ambient pressure will gradually slow the flow of oxygen until it will stop at the theoretical maximum depth of around 120m). Pre-



Above - Divers back from a dive to 60 metres. Continuous decompression as you swim back along the wreck partly explains the excellent safety record of diving the Coolidge.

The forward gun on the port side.

A natural light image of the stern 5" gun.

A rope ladder near the stern, used to abandon ship by the troops.

Barry enters a stern compartment - even his exhaust bubbles cause siltling in these rarely-visited parts of the ship.

The sharkcage which was to be used during the recovery of fuel and oil; recently it collapsed onto the hull.

A lionfish hunts at dusk in the 'decogarden'.

dive, oxygen flow is set to just below the diver's basal metabolic requirement so that the PO₂ in the loop will slowly decay. This means that seizure inducing hyperoxia is an unlikely complication, and that the diver must intermittently manually add O₂ to maintain the desired PO₂ and prevent a hypoxic gas being inhaled.

For me, the KISS valve is set to deliver oxygen at 750mls/minute, which equates to an easy 300min supply from my 2litre

tank filled to 150bar. The KISS scrubber holds 2.75 kg of soda lime which in the tropics has an unofficial lifespan of at least 4-6hours. I change mine at 3-4 hours depending on the type of dives. For the 60-70m dives I carry an open circuit bailout in the form of two steel 7 litre sling tanks containing a bottom mix and a deco mix.

The Ship: The superbly written book *The President and the Lady* by Peter Stone is mandatory reading for anyone interested in the history of this majestic vessel and the wartime history of the island of Espiritu Santo in Vanuatu's north. It describes how the 654ft, 21936 ton luxury liner carrying troops and cargo for the Pacific war effort, struck two friendly mines in the Segond Channel on its final approach to Luganville. In a desperate effort to save his precious cargo, the captain drove the ship onto the shoreline, but as she sank, she slipped back down the steep slope to her present resting place on her starboard side. The slope means that whilst the bow lies in only 20 metres or less, the stern sits in up to 70 metres on the sand. This makes a classic shore dive for beginners to experienced technical divers and everyone in between. Barry May and Allan Power salvaged parts of the ship in the late 1960s, including the ship's massive props, but apart from that the ship still contains all the wartime goodies that

sank with her. Crockery, cutlery, guns, trucks and tooth brushes can all be seen scattered around the wreck. Parts of the wreck such as the promenade deck are filled with an extraordinary shimmering quality of the blue light filtering down through deck skylights and side windows, making this part of the wreck one of my favourite places in the world.

But it's the 'deep end' of the ship which really fascinates me. Few visitors get to see this part of the ship in any detail. As you pass the 55 metre mark, the gloom around the ship becomes more tangible and a feeling of excitement grows. Currents often spring up on the sand around the stern which can pull the unwary out to sea. Our HID lights cut a swathe through the dark blue water illuminating the massive propeller shafts, the stern rail and are then lost into the black void beyond the back of the ship. Countless objects lie half buried in the sand around the wreck down here, all begging closer scrutiny but there never seems time to stop and look at the detail. Recently Barry Holland and I have been laying line inside the stern section in order to safely explore the parts of the vessel containing the steering gear, the third class dining room and the Chinese

The 5" gun sits atop B deck. This natural light image was taken from behind the ship on the sand at 68 metres. The ship is lying on her starboard side.

This amazing image of the stern was taken just before the President Coolidge sinks. *With permission, Peter Stone collection.*

American helmets resting in the silt.



The author resting on the sand slope towards the end of the dive. Note the KISS open circuit/DSV, one of the very popular features of this CCR.



storeroom. In the blink of an eye, the run time builds and Barry and I are forced to leave the twilight zone and return to the lighter, better traveled parts of the ship. Decompression is continuous as we swim all the way back along the ship, gradually losing depth before ending up in the well known 'deco gardens' made by local divers over the years. The famous Boris (a massive cod) is now gone but now the fish life seems more plentiful, and a group of us were privileged to spend 10 minutes watching a dugong scratching its belly on the sand whilst we off gassed.

In my 10 years of visiting the Coolidge there has been noticeable decay of the great ship and already some areas are gone forever. No doubt Allan Power visits a different wreck today than the one he first dived many years ago. But enough remains to make this one of THE great shore dives in the world and, for technical divers, the stern area still qualifies as 'off the beaten track!' ■