

HMA Submarine AE2

The Silent ANZAC



The story of AE2 “the Silent ANZAC” is a story of great bravery and determination by the 32 Australian and British crew in the submarine AE2, sent in to support the ANZAC landings 94 years ago. Their success affected the conduct of the land battle and led the way for a submarine campaign that was to deny the Turkish forces use of the Sea of Marmora for reinforcing and supplying the Gallipoli Peninsula.

Today the submarine lies intact and upright on the bottom of the Sea of Marmora, while the story of her brave crew is largely unremarked in our war memorials and unknown to many Australians.

I am indebted to:

- The AE2CF team who largely put this presentation together,
- Lieutenant Commander Stoker’s book “Straws in the Wind” – LCDR Stoker was the commanding officer of AE2,
- Tom Frame’s book “First in Last Out”,
- Dr Michael White QC book “Australian Submarines: A History”

- The Australian War Memorial,
- The artists Phil Belbin and Charles Bryant and Dr Mark Spencer for use of the images to support this presentation.
- The work of Selcuk Kolay and Dr Mark Spencer in discovering and diving on the AE2 in 1997 and 1998
- Tim Smith of the New South Wales museum for commencing the marine archaeological assessment of the wreck, and
- Fred & Elizabeth Brenchley's book "Stoker's Submarine"

Background – Submarines AE1 and AE2

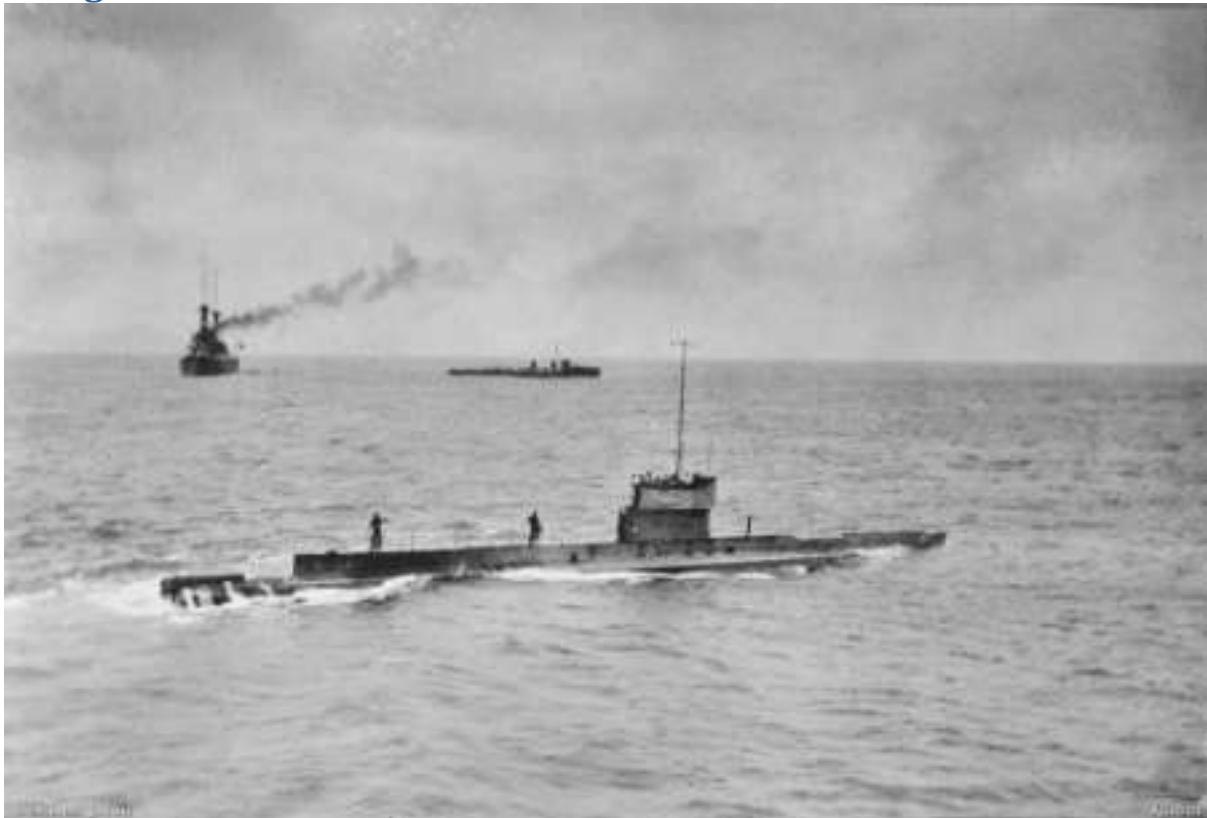


Figure 1 - HMA Submarine AE1 with HMAS AUSTRALIA and PARRAMATTA on transit to Rabaul, September 1914

In the period 1909 to 1911 Vice Admiral Sir William Creswell (Australia's first Chief of the Naval Staff) was asked by the Australian Parliament to prepare his requirements for what was to become the Royal Australian Navy. The Admiral then travelled with Prime Minister Deakin to London to order his Navy – as all of these ships were to be purchased from the United Kingdom under the supervision of the Admiralty.

The Admiral ordered two Dreadnought Class battleships and a number of cruisers and destroyers. A very satisfied Admiral Creswell sailed back to Australia. Unwisely he left Prime Minister Deakin behind him in London.

Confident that his Chief of Naval Staff was on the high seas heading for Australia, Alfred Deakin visited the Admiralty and amended Creswell's shopping list. One of the Dreadnoughts became two submarines – the submarines AE1 and AE2.

AE1 and AE2 sailed from UK in early 1914 and joined HMAS Sydney I in the Indian Ocean, and indeed both boats were occasionally towed by Sydney to arrive in Sydney town on 24th May 1914.

At the outbreak of the First World War the two submarines were deployed with other RAN ships to capture Rabaul (then a German colony) and to neutralize the German forces in the South West Pacific. In this operation AE1 was lost with all hands on 14th September 1914. AE1 has not been found.

AE2 was then deployed to the Mediterranean to join the British 2nd Submarine Squadron based at Tenedos (now called Bozcaada) about 30 nautical miles south of the entrance to the Dardanelles.

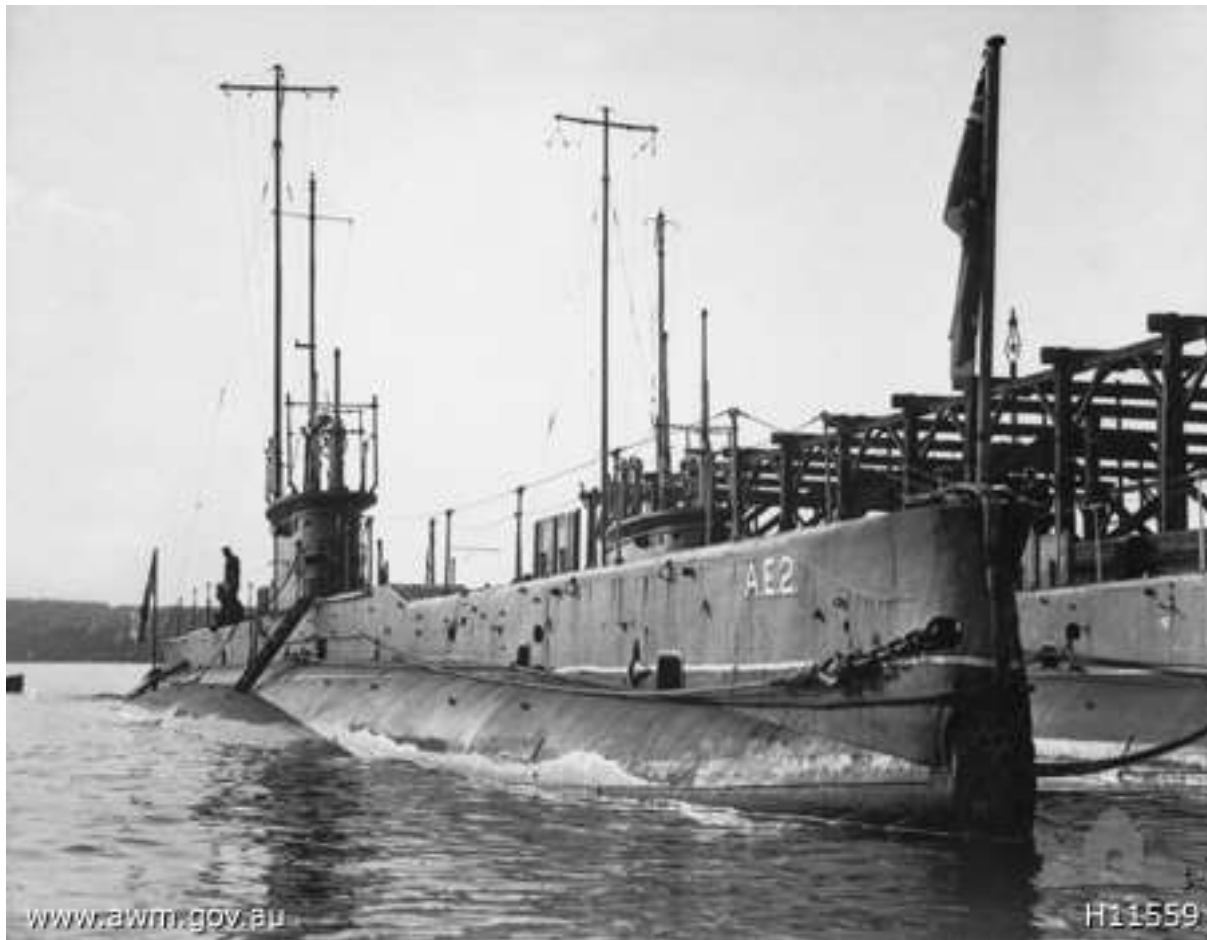


Figure 2 - Submarines AE1 (inboard) and AE2 alongside in Sydney Harbour

- The E Class were 178ft long and displaced 796 tons dive
- The hull was hand riveted from approximately ½” steel.
- Two 8 cylinder diesel engines of 750 hp gave a maximum surfaced speed of 15 knots, a range of ~ 3,000 nm at 10 Kn surfaced.
- Two electric motors connected to battery banks of 224 cells gave a maximum dived speed of 10 Kn for 1 hour or 5 Kn for 5 hours.
- The submarine carried a crew of 32.

- The submarine's first (and only) Commanding Officer was Lieutenant Commander Henry Hugh Gordon Dacre Stoker Royal Navy (He was the second son of a physician, was born in Dublin on 2 February 1885.)

AE2 Goes to Gallipoli

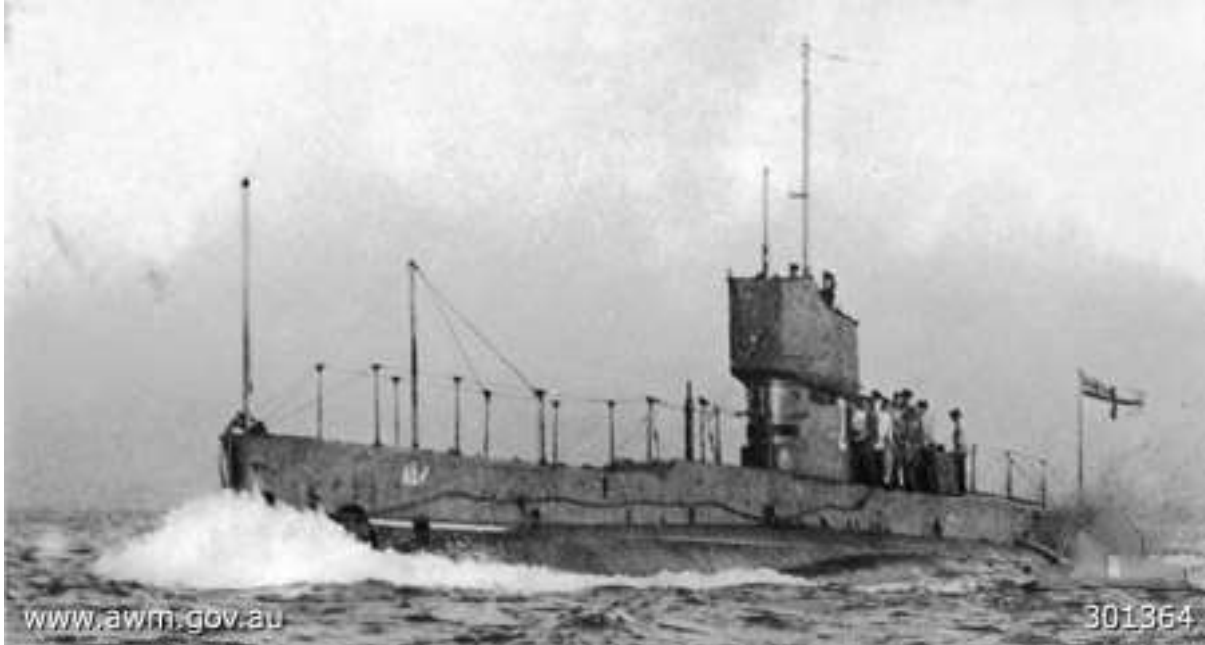


Figure 3 - HMA Submarine AE2 – Underway

AE2 departed Albany with the convoy carrying the First AIF to Egypt in November 1914.

The British and French focus on the Dardanelles was in support of a strategy that was intended to join with the Russians to attack the eastern flank of Germany and at the same time disconnect Germany from its allies in Turkey and Austria. There had been several attempts by the Allied fleet to force the Dardanelles with the loss of three battle ships and some other large naval vessels together with the lives of hundreds of sailors drowned.

There had been several attempts by British and French submarines to transit Dardanelles, but every attempt failed.

In fact, the mathematics in the submarine operation was simple.

Submarine Operations (the Mathematics)

- Track from south of Canakkale to Gallipoli ~ 35NM
- Out-flowing current ~ 4 knots
- Submarine dived speed ~ 5 knots
- Thus speed over the ground 1 knot
- Journey should take 33 hours
- But - Submarine Battery ~ 5 hours

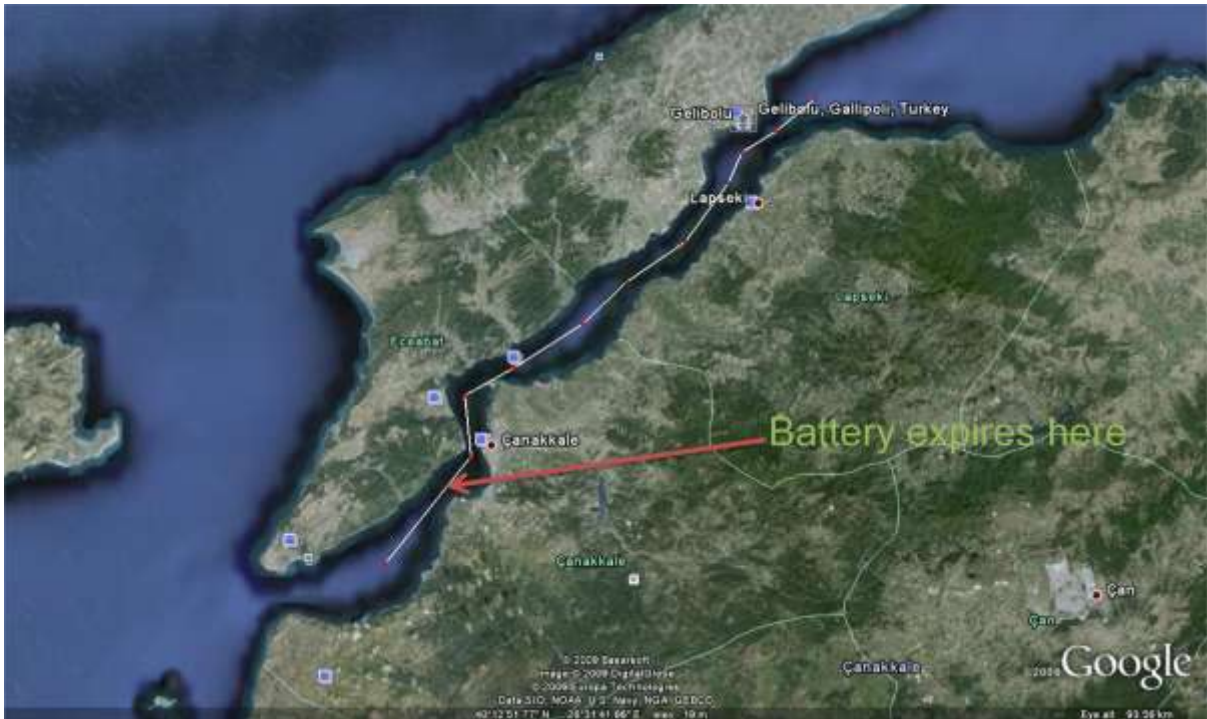


Figure 4 - A Track through the Dardanelles

The critical issue in this operation was the duration of the submarine's battery.

All of the Allied submarines had similar characteristics; their optimum speed whilst dived was 5 knots when their battery could keep them going for about 5 hours. (They could do 10 knots dived, but only for one hour.)

The Dardanelles has an out-flowing current of 4 knots, and all of the submariners knew that. Thus their plan to penetrate the Dardanelles and at the same time remain undetected was a major challenge.

Several submarines proved that the mathematics was right, and they each surfaced dangerously close to the Turkish fortifications at Chanak (Canakkale) and then withdrew.

Why was AE2 Successful in its Penetration of the Dardanelles?

LCDR Stoker was directed to take AE2 into the Sea of Marmora departing Bozcaada on the afternoon of 23rd April to make the transit during the early morning of 24th April.

He sailed as directed and dived south of Chanak at about 1:00 am in the morning of Saturday 24th April, and AE2 immediately developed an after hydroplane defect and embarked on what is called in the trade a "depth excursion". You will recall from slide 3 that the maximum operating depth for an E Class submarine is 100 feet. It seemed that on this occasion AE2 went a little deeper than that, but Stoker and his team managed to recover the situation and surfaced the submarine. Stoker had expected to be fighting the 4 knot out flow (as he had while he was on the surface) but to his surprise (and discomfort) he was much closer to Chanak than he expected.

Stoker had discovered a counter current – an inflowing current of about 4 knots – at 90 feet and below. This made the mathematics much more sensible.

Stoker took AE2 back to the submarine depot ship at Bozcaada for repairs.

AE2 sailed again at about 10:30 pm on Saturday 24th April and dived in the vicinity of location 2 on this slide at about 1:00am the morning of Sunday 25th April. Stoker took the boat to its maximum operating depth to catch the counter current into the Sea of Marmara.

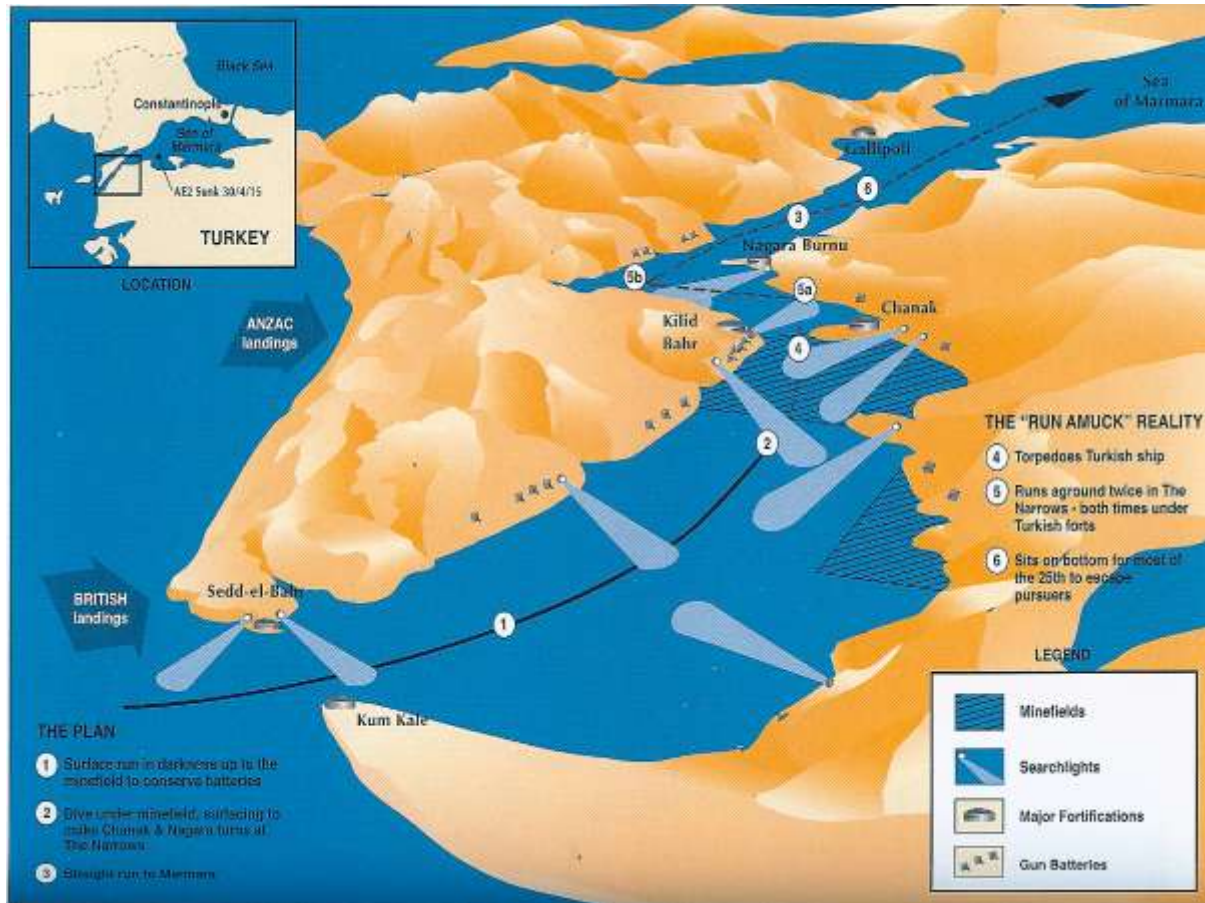


Figure 5 - AE2 Plan to transit the Dardanelles

LCDR Stoker's acquaintance with the inflowing counter current was very new and he underestimated its speed so that at about 3:00 am he ran aground. In his book Stoker describes the experience of raising his periscope and conducting an all round look. He realised two things straight away – 1) he was well aground so that the boat was clearly visible to the Turks, and 2) he was being shot at by rifle fire. He continued his rotation to come face to face with two 6 inch gun muzzles – “so close that he could touch them”.

The good news was the submarine was so close to the guns that they could not depress low enough to hit AE2.

Using a lot of his precious battery Stoker manoeuvred the boat back into deep water and continued his journey, up the strait, only to run aground about 90 minutes later. With the benefit of experience Stoker was able to get back into deep water with less drama.

However, by this time his presence in the strait was well known to the Turks. This had one unintended (and positive) consequence. Up until AE2's second exposure a Turkish Monitor had been at anchor opposite Nagara Burnu firing its 12 inch gun lobbing shells onto the beach where the ANZACs were landing. As soon as it

became aware of the presence of AE2 in the straits the monitor raised its anchor and sailed back to Constantinople – it stopped shelling the Australians on the beach on the other side of the peninsular.

AE2 moved further north during the morning of 25th April, but by this time the Turks were deploying significant effort to locate and sink the submarine. Stoker elected to sit the submarine on the bottom and wait for the enemy to lose interest. The Turks used some pretty tough measures including towing steel wires across the sea floor and trailing their ships anchors across the bottom, hoping to snag the submarine.

AE2 survived and late in the afternoon the boat continued its journey.

The “other” ANZAC Story

At about 8:30 pm AE2 surfaced in the Sea of Marmara just to the east of the town of Gallipoli. Stoker sent a signal to his boss Commodore Roger Keyes in HMS Queen Elizabeth to say that he had been successful in the transit of the Dardanelles. Queen Elizabeth was the headquarters ship for General Sir Ian Hamilton Commander in Chief of the Mediterranean Expeditionary Force.

This part of the story may be apocryphal – Tom Frame describes the scene in the Operations Room in Queen Elizabeth. It was not a happy place – Hamilton’s staff officers were giving him nothing but bad news. General Birdwood (in charge of the ANZACS and the man on the ground at what is now called ANZAC Cove) had concluded that the ANZAC landing was a seriously bad idea by about 10:00 am on Sunday morning 25th April. He had sent several messages to Hamilton describing the disaster, and recommending that the troops be taken back off the peninsular.

Hamilton had not answered Birdwood’s messages, and by 8:00pm in the evening Birdwood was very unhappy and very convinced that the operation should stop.

AE2’s signal to say that it had been successful in entering the Sea of Marmara was taken by a junior submarine officer to Roger Keyes who was in conference with Hamilton. Hamilton is reported to have read the signal and then sent a message to Birdwood telling him that the ANZACs would not be withdrawn, that the Australian submarine had been successful in penetrating the Dardanelles, and therefore (by implication) the worst was over.

This part of the story may or may not be factual, but it had sufficient strength to become known to Stoker after he was released from a prisoner of war camp. He wrote in his book “Straws in the Wind” that had he known that Hamilton would rest his decision to leave the ANZACs on the peninsular on Stoker’s signal, he would not have sent the signal.

Into The Sea of Marmora

Having breached the narrows, torpedoed a ship, generally caused alarm amongst the Turkish forces and with a damaged submarine Stoker could have honourably turned for home on the outgoing current – but he pressed on into the Sea of Marmora.

Over the next 4 days he attacked the ships bringing Turkish reinforcements to the Peninsula, deliberately exposed the SM as illustrated in Bryant’s painting.

He exited and re-entered the straits with his periscope showing to attract attention.

It worked, the Turkish authorities were thoroughly alarmed by the threat of AE2 and subsequent submarines posed to surface traffic, restricting this to small vessels moving by night.



Figure 6 - AE2 Presenting the Submarine Threat in the Sea of Marmara – Charles Bryant

“She slid away to her last and longest dive”

(These were Stoker’s words describing the sinking of AE2.)

However on 30 April AE2’s luck ran out. The crew lost control, probably due sailing into to a patch of fresh water. After two plunges way beyond her maximum depth, AE 2 surfaced very close to the *Sultanhisar*, a Turkish gunboat and the submarine was holed 3 times in the engine room by gunfire from the gun boat.

The crew abandoned ship as the Captain and First Lieutenant went below to scuttle the submarine to prevent it falling into enemy hands.

All the crew survived the sinking and were taken prisoners of war.



Figure 7 -Location of the sinking of AE2

The Significance of AE 2's Operation

AE 2's action is significant in the history of Gallipoli because:

- It was the first Allied submarine to penetrate the Dardanelle's:
- Two previous attempts had resulted in the destruction of the submarines involved.
- AE's penetration was therefore the first step in the Allies successful submarine campaign to paralyse enemy shipping and deny the Ottoman forces use of the Sea of Marmora for resupplying the Gallipoli Peninsula.
- AE 2 was the first RAN warship lost in an engagement with the enemy.
- AE 2's success was taken as a positive omen and cited directly in Sir Ian Hamilton's decision to continue the landings after the set backs of the first day.
- The tactic of exposing the submarine and aggressively engaging shipping was material in causing the Ottoman forces to re-route reinforcements, ammunitions and supplies to sustain much of their forces on the Gallipoli peninsula by an overland route using the poor roads of the time:
- This was a much slower process than the sea route across the Sea of Marmora.
- The effect of this was to delay the build-up of Turkish forces there by reducing the pressure on ANZAC and Allied troops and giving them more time to consolidate their beachhead.

- AE2 began what is probably the first successful submarine campaign to deny an opponent use of the sea.
- AE 2's penetration of the Dardanelles marked a new phase in the war at sea.
- Having successfully repulsed the combined might of the Allied battle ships endeavouring to force the Straits in March; they were now facing a new challenge for control of their territorial waters.

Today AE 2:

- Survives as one of a handful of British E-class submarines located in the world today.
- Due to its integrity, AE2 offers possibly the greatest opportunity for scientific survey and analysis
- A significant Australian World War I relic, one of the few remaining, lying where it fell in battle.
- A memorial to the skill and determination of the RAN's fledgling submarine arm and a forerunner to the future impact of this weapon system on the war at sea