

GREENBANK NAVAL ASSOCIATION SUB SECTION

EVENTS: OCTOBER 2019 / NOVEMBER 2019						
October 2019						
Tuesday	01	1900-2100	Normal Meeting	RSL Rooms		
Wednesday	y 30	1000-1030	Executive Meeting	RSL Rooms		
November 2019:						
Tuesday	05	1900-2100	Normal Meeting	RSL Rooms		
Monday	11	1045-1400	Remembrance Day Services			
Sunday	24	1030-1430	Christmas Function	RSL Rooms		
Wednesday	y 27	1000-1030	Executive Meeting	RSL Rooms		

Merchant Mariners Service Saturday 31 August 2019:

Some of the attendees from NAA Sub Branch and Merchant Navy.



Editors Request:

Articles for the newsletter can be handed in at meetings, or by email: articles may be edited to fit the newsletter.

The contents of this edition of the newsletter have been obtained from information provided from Len Kingston-Kerr whom I thank greatly, various publication publications and NAA information emailed in.

DEDICATION OF THE MONUMENT TO ALL SEAFARES



By: Robert (Tug) Wilson

Anzac Day is the day in which we normally pause to honour our past warriors and those who've gone before us – but today as this is All Flags Day, I'd like to speak on a force which is a little different from our three uniformed Armed Forces, with which we normally associate with wartime. A force, which in many cases, has been forgotten and known as the 4th arm and in a few cases even maligned. I speak of course of the Australian Merchant Marine and its history throughout the last century, in particular WW1 and WW2.

Ladies and Gentlemen, you would be forgiven in some instances for asking "Why would this man wish to talk about the Merchant Marine? I've never heard of such a force or would why would I want to hear about it?"

It is for that reason that I believe their story should occasionally be told.

The Australian Merchant Marine in both World Wars was not just acting as an auxiliary to the three branches of the Armed Forces, but as was in fact in the forefront of almost every major campaign. I could, I suppose, begin by reciting many statistics, For instance, at the outset of the Second World War, we had some 230 vessels – less than half survived enemy action.

Some 44 ships sunk off our Australian Coast alone. Some 30,000 men from what was deemed the British Empire Merchant Marine went to their deaths in every ocean and sea on the face of this earth. I could also truthfully point out that in ratio to their numbers, the Australian and British

Commonwealth Merchant Marine lost more men than the other three Armed Forces combines, but it is not a competition and these statistics are not generally known.

What I would like to do is try to put a human face to these men – the Men of the Merchant Marine Who were they?

What were they about?

Where did they come from?

Why did they man these ships?

By in large, they were just ordinary men. Average Australians ranging in age from as young as 14 (deck boys) to well into their sixties.

They came from country towns or coastal cities – Fremantle, Gosford, Newcastle, Traralgon, Brisbane, Adelaide and Rockhampton to name a few.

Think about that, if you will.

To go to work meant going to war. There were no uniforms for these men. No gold braids, no battle decorations, no street parades, no pension schemes, no pretty girls to be smiled at and kissed perhaps. There was no beer across the bar from a grateful older man. There was no braggardo as in what unit or ship or squadron to which they belonged. No battle honours to be put up or to be thought of, or dreamed about and even until very recently, no monuments to their passing. Just simply a job to be done.

Shipping was perceived as vital to the National War Effort, especially during WW2. The control and planning of which emanated mainly from British Admiralty and the First Sea Lords. A situation which would be seen as intolerable today but in those days, would be seen as the norm.

To our Seafarers (Australians) meant that on declaration of hostilities in 1939, no matter where they were in the world, they were deemed immediately to be at war. In icy waters of the North Atlantic convoy duties was your lot. In the Pacific, minefields and enemy aircraft became the norm and there was in fact, no relief. Even if you survived a sinking, you were granted seven days survival leave only, starting by the way, from the moment you entered the life boats.

A clean set of clothes and a new ship to report to courtesy of the National Shipping Office. That was the lot of the Merchant Seamen, some of these men never even got back to Australia especially during the Second World until 1946-1947 due to the fact that companies and Captains knew that to employ them meant they would jump ship when near a home port thereby leaving them short-handed on the return voyage to Europe.

From 1939to 1946 was a very long war indeed. Many of these ships they served in, due to wartime restrictions, were ill-provisioned and ill-founded.

Not only were they ill-founded but they were also unarmed for the most part along with the crew and remained that way well into the war years and woe and betide, any Merchant Seaman who decided to miss a voyage or two, and stay home.

For you could be back it in, there was always a policemen at your front door, just to ensure of course, that you did not miss your sailing time, for you see, under the Essential Services Act, these men had no choices in the matter. They did their job with a minimum of fuss – uncomplaining, unstinting and loyal in the most part – good men.

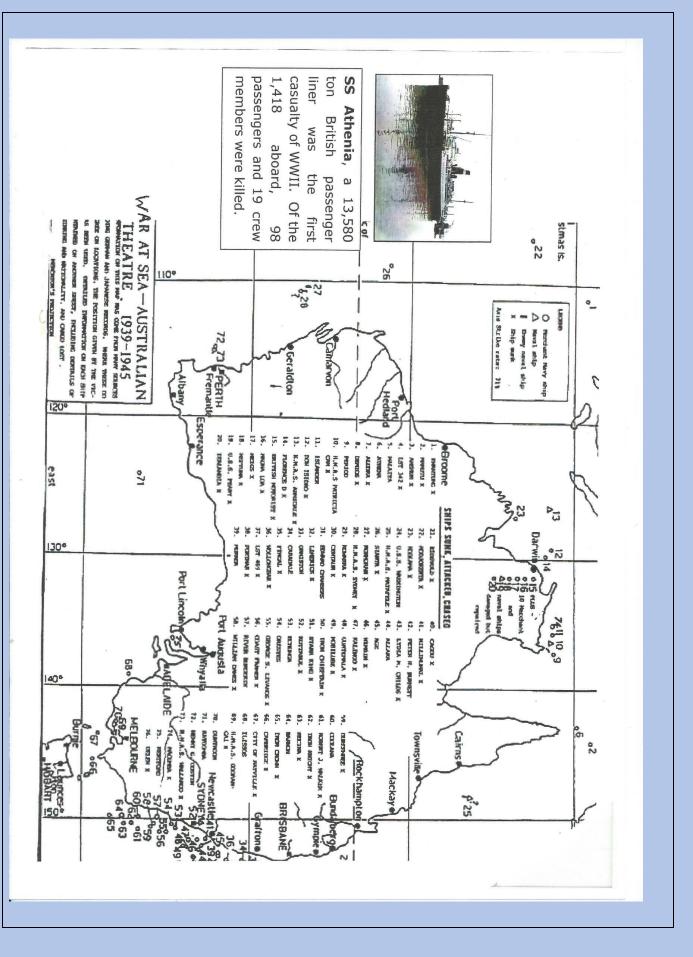
Good men indeed, who for the most part, have gone unrecognised by successive Governments. Their contribution to our National Security were in fact immense.

They did not die heroically facing the enemy; they did not die cleanly beneath a waving banner covered in glory. They simply died of exposure in icy cold waters, or horrible burnt, or screaming for their mothers, or blind with furnace oil fuels flooding their lungs.

Horrible deaths yet deaths that were not in vain but vital to our National Security.

These people, Ladies and Gentlemen, also served our nation. These people, Ladies and Gentlemen, also died gallantly. These people, Ladies and Gentlemen, deserve our homage alongside our other Armed Forces.

Ladies and Gentlemen, Lest We Forget



ROYAL AUSTRALIAN NAVY PERSONALITIES

CPOCOX JONATHAN ROGERS



Jonathan Rogers was born on 16 September 1920 at Froncysyllte, near Llangollen, Denbighshire, Wales, fifth of seven children of Jonathan Rogers, labourer, and his wife Sarah Ellen, née Probyn. Leaving Acrefair Central School at the age of 14, he worked at the Ruabon brickyard, boxed and played soccer.

On 22 November 1938 Rogers enlisted in the Royal Navy. Five foot 8 inches (173cm) tall and heavily built, he had brown hair, blue eyes and a fresh complexion. He spent most of World War II at sea in three coastal vessels: Motor Anti-Submarine Boat *No.* 62 (1940-41),

Motor Launch *No. 204* (1942-43) and Motor Torpedo Boat *No. 698* (1943-45). Promoted Petty Officer in 1943, he was awarded the Distinguished Service Medal for his 'coolness and leadership' under enemy fire during an action off Dunkirk, France, on the night of 23/24 May 1944. He was discharged from the RN on 23 January 1946.

At the parish church, Pen-y-cae, Denbighshire, on 4 April 1942 Rogers had married Lorraine Williams; they lived in the village and were to have four children. After the war he worked above ground at a local colliery and built pre-fabricated houses. In 1950 he applied to join the Royal Australian Navy. He was accepted on 6 July and posted to the aircraft-carrier HMAS *Sydney*; his next ship was the frigate *Burdekin*. Service (1952-54) in the destroyer *Tobruk* took him to Korean waters. He was promoted Chief Petty Officer in 1956. His subsequent postings included the ships *Junee* (1956-57), *Anzac* (1957-58), *Warramunga* (1959) and *Barcoo* (1959-61), and the shore establishments *Cerberus* (1958-59), *Westernport*, *Victoria*, and *Rushcutter* (1961-62), Sydney. The family finally settled at Ettalong Beach, New South Wales.

In January 1963 'Buck' Rogers joined the destroyer *Voyager* which was commanded by Captain DH Stevens. As her coxswain, Rogers was the senior sailor on board and responsible for the 'good order and discipline' of the ship's company. On 10 February 1964 *Voyager* took part in exercises with the aircraft-carrier Melbourne off the south coast of New South Wales. That evening Rogers presided over a game of tombola being played by about sixty men in the ship's forward cafeteria. At 20:56, 20 nautical miles (37km) south-east of Jervis Bay, *Voyager* collided with *Melbourne* and was cut in two. *Voyager*'s severed forward section immediately heeled sharply to starboard and about five minutes later turned upside down. Water began pouring into the cafeteria. Within another five minutes the forward section sank. Rogers was one of the 82 men who died. His wife, son and three daughters survived him.

Sailors who escaped from the cafeteria later told how Rogers had taken charge of the situation. He had calmed terrified shipmates, attempted to control the flooding, tried to free a jammed escape hatch with a length of pipe and a spanner, and organised men to move into other compartments with functioning emergency exits. Meanwhile, he knew that he was probably too large to fit through an escape hatch himself. When it was obvious that some of his comrades would not get out in time, he led them in prayer and a hymn, 'encouraging them to meet death' beside him 'with dignity and honour'. His wife remarked: 'It was typical of him - he never thought of himself'. He was posthumously awarded the George Cross.

ROYAL AUSTRALIAN NAVY ADMIRALS

VICE ADMIRAL DONALD BRUCE CHALMERS



Donald Bruce Chalmers was born in Young, NSW on 29 April 1942 and entered the Royal Australian Naval College in January 1958. He graduated from the college in December 1960 and proceeded to sea in the training ship HMAS *Swan*, in early 1961, for four months training. Chalmers was promoted midshipman in May 1961 and undertook further training at Britannia Royal Naval College at Dartmouth during 1961-62. He was promoted sub-lieutenant in September 1962.

During August - December 1962 he served in the minesweeper HMAS *Teal* during her delivery voyage from England to Australia. In January 1963 Sub-Lieutenant Chalmers was appointed to the destroyer HMAS *Voyager* and saw service in her in Southeast Asia before undertaking direction officer courses at HMAS *Watson* in late 1963. Chalmers then joined the frigate HMAS *Yarra*, in January 1964, as the assistant direction officer, ships diving officer and correspondence officer. He saw operational service in *Yarra* during the Indonesia-Malaysia confrontation (1964-66). He was promoted lieutenant in October 1964.

Lieutenant Chalmers joined the frigate HMAS *Parramatta* in January 1966 and the ship operated extensively in Australian and Southeast Asian waters. During his time as navigating officer the ship grounded briefly in November 1966, off the west coast of the Malaysian Peninsula, and despite being found guilty at court martial the verdict was later quashed and he remained serving in the frigate. During November 1967 - July 1968, Chalmers served at the Recruit School (HMAS *Cerberus*) as training officer before proceeding to the United Kingdom to undertake the long navigation course at HMS *Dryad*. He then served on exchange with the Royal Navy as navigating officer of the *Tribal* class frigate HMS *Mohawk* on the West Indies Station. Following this sea service he returned to *Dryad* as a navigation school instructor.

After returning to Australia, in July 1971, he was appointed as a navigation school instructor at HMAS *Watson* in Sydney. Chalmers was appointed as navigating officer of the guided missile destroyer HMAS *Brisbane* in May 1972 and promoted lieutenant commander in October that year. During his time onboard the ship operated in Australian waters and also took part in Exercise RIMPAC off Hawaii. In May 1973 he became navigating officer of the training ship HMAS *Anzac* and was later loaned to HMS *Dryad* for the advanced navigation course. Lieutenant Commander Chalmers was appointed navigating officer of the tanker HMAS *Supply* in August 1974. Following in the wake of cyclone Tracy, that devastated the city of Darwin on Christmas Eve 1974, *Supply* was part of Operation NAVY HELP DARWIN dispatched to clean up the city and restore essential services to the population.

In January 1976 he joined the aircraft carrier and RAN flagship HMAS *Melbourne*. The carrier took part in Exercise RIMPAC 76 in Hawaiian waters and also operated extensively in Australian and Southeast Asian waters. In 1977 *Melbourne* was deployed again to Hawaii for Exercise RIMPAC 77. Don Chalmers was promoted commander in June 1977 but remained in *Melbourne* as staff officer operations (Fleet Headquarters Staff) as the ship was deployed to the United Kingdom for Queen Elizabeth II Silver Jubilee celebrations including the fleet review at Spithead.

He remained as staff officer operations until mid-1978 when he travelled to the United States to study at the US Naval War College at Newport, Rhode Island and the Naval Postgraduate School at Monterey, California. Upon return to Australia he returned to Fleet Headquarters, in 1980, as the fleet plans and navigating officer. Commander Chalmers took command of the guided missile destroyer HMAS *Hobart* on 18 November 1981. During his time in command the ship operated in Australian, New Zealand and South Pacific waters as well taking part in Exercise RIMPAC 82 off Hawaii. In March 1983 he relinquished command of *Hobart* and was appointed as the director of the Tactical School at HMAS *Watson*. Promoted captain in December 1983 he joined the Force Development and Analysis Division, Canberra, in early 1984, where he undertook a number of capability reviews. In July 1986 Captain Chalmers became the Director Surface Warfare, Command and Control within Navy Office, Canberra.

Promoted commodore in December 1987 he studied at the Royal College of Defence Studies, in the United Kingdom, during 1988 before returning to Australia and appointment as the Director General Manning and Training in the Personnel Division in January 1989. While in this appointment he was also head of the Regular Officers Career Study. In March 1990 Commodore Chalmers became Commodore Flotilla's at Fleet Headquarters in Sydney and held this important position until December 1991. In August 1990 the RAN deployed a task group to the Gulf of Oman following the Iraqi invasion of Kuwait. Commodore Chalmers commanded this first task group during 26 August - 5 December 1990 and was subsequently appointed as an Officer in the Order of Australia (AO) in 1992 *in recognition of his services as Commander of the first Royal Australian Navy Task Group during the Persian Gulf War*.

Promoted rear admiral on 13 January 1992 he was appointed as Chief of Naval Personnel (later renamed the Assistant Chief of Naval Staff - Personnel) dealing with the myriad of issues affecting recruiting, retention, training and conditions of service. He was appointed Maritime Commander - Australia in December 1993, Assistant Chief of Defence Force - Development responsible for Australian Defence Force development and international defence relationships in April 1995, and finally became Chief of Navy in July 1997.

During his time as Chief of Navy the RAN underwent a significant period of renewal with Collins class submarines and Anzac class frigates entering service as well as the increase in operational activities supporting the peace monitoring group (Operation BELISI), on the island of Bougainville, Southern Ocean fisheries patrols and ongoing ship deployments to the Arabian Gulf as part of Operation DAMASK. Additionally on 5 May 1998 the navy suffered a major disaster onboard the tanker HMAS *Westralia* with the loss of four lives and major damage to the ship.

Rear Admiral Chalmers retired from the RAN on 2 July 1999.

NAVAL DISASTERS

USS THRESHER SSN 593:





The second **USS** *Thresher* **(SSN-593)** was the lead boat of her class of nuclear-powered attack submarines in the United States Navy. She was the U.S. Navy's second submarine to be named after the thresher shark.

Class Thresher Class Submarine		Displacement	3,540 short tons
Laid Down	28 May 1958	Length	279 ft
Launched	09 July 1960	Beam	32 ft
Commissioned	03 August 1961	Draft	26 ft
Crew	16 Officers 96 Men	Propulsion	1 x Westinghouse S5W
			Geared Turbine 15,000 shp
Armament	4 x 21in Torpedo tubes		

The contract to build *Thresher* was awarded to Portsmouth Naval Shipyard on 15 January 1958, and her keel was laid on 28 May 1958. She was launched on 9 July 1960, was sponsored by Mrs. Mary B. Warder (wife of World War II skipper Frederick B. Warder), and was commissioned on 3 August 1961, Commander Dean L. Axene commanding.

Thresher conducted lengthy sea trials in the western Atlantic and Caribbean Sea areas in 1961–1962. These tests allowed a thorough evaluation of her many new and complex technological features and weapons. She took part in Nuclear Submarine Exercise (NUSUBEX) 3–61 off the northeaster coast of the United States from 18–24 September 1961.

On 18 October 1961, *Thresher*, in company with the diesel-electric submarine *Cavalla*, headed south on a 3-week test and training cruise to San Juan, Puerto Rico, arriving 2 November. Following customary procedure while in port, her reactor was shut down. Since no shore power connection was available in San Juan, the ship's backup diesel generator was used to carry the "hotel" electrical loads. Several hours later, the backup generator broke down and the electrical load was transferred to the ship's battery. As most of the battery power was needed to keep vital systems operating and to restart the reactor, lighting and air conditioning were shut down. Without air conditioning, temperature and humidity in the submarine rose, reaching 60 °C (140 °F) after about 10 hours. The crew attempted to repair the diesel generator (four men would receive Navy commendation medals for their work that night).

After it became apparent that the generator could not be fixed before the battery was depleted, the crew tried to restart the reactor, but the remaining battery charge was insufficient. The captain, returning to the ship from a shore function, arrived just after the battery ran down. The crew eventually borrowed cables from another ship in the harbor and connected them to the adjacent *Cavalla*, which started her diesels and provided enough power to allow *Thresher* to restart her reactor.

Thresher conducted further trials and fired test torpedoes before returning to Portsmouth on 29 November 1961. The boat remained in port through the end of the year, and spent the first two months of 1962 evaluating her sonar and SUBROC systems. In March, she participated in NUSUBEX 2–62 (an exercise designed to improve the tactical capabilities of nuclear submarines) and in anti-submarine warfare training with Task Group ALPHA.

Off Charleston, South Carolina, *Thresher* undertook operations supporting development of the SUBROC anti-submarine missile. She returned briefly to New England waters, after which she proceeded to Florida for more SUBROC tests. While moored at Port Canaveral, Florida, the submarine was accidentally struck by a tug, which damaged one of her ballast tanks. After repairs at Groton, Connecticut, by the Electric Boat Company, *Thresher* went south for more tests and trials off Key West, Florida, then returned northward. The submarine entered Portsmouth Shipyard on 16 July 1962 to begin a scheduled 6-month post-shakedown availability to examine systems and make repairs and corrections as necessary. As is typical with a first-of-class boat, the work took longer than expected, lasting nearly 9 months. The ship was finally recertified and undocked on 8 April 1963.

Sinking

On 9 April 1963, *Thresher*, commanded by Lieutenant Commander John Wesley Harvey, got underway from Portsmouth at 08:00 and met with the submarine rescue ship *Skylark* at 11:00 to begin her initial post-overhaul dive trials, in an area some 190 nm (220 mi; 350 km) east of Cape Cod, Massachusetts. That afternoon *Thresher* conducted an initial trim dive test, surfaced, and then performed a second dive to half of test depth. She remained submerged overnight and re-established underwater communications with *Skylark* at 06:30 on 10 April to commence deep-dive trials. Following standard practice, *Thresher* slowly dove deeper as she travelled in circles under *Skylark* – to remain within communications distance – pausing every additional 100 ft (30 m) of depth to check the integrity of all systems. As *Thresher* neared her test depth, *Skylark* received garbled communications over underwater telephone indicating " ... minor difficulties, have positive up-angle, attempting to blow", and then a final even more garbled message that included the number "900". When *Skylark* received no further communication, surface observers gradually realized *Thresher* had sunk.

By mid-afternoon, 15 Navy ships were en route to the search area. At 18:30, the Commander, Submarine Force Atlantic, sent word to Portsmouth Naval Shipyard to begin notifying next-of-kin – starting with Commander Harvey's wife, Irene Harvey – that *Thresher* was missing.

By morning on 11 April, all hope of finding *Thresher* was abandoned, and at 10:30, the Chief of Naval Operations Admiral George W. Anderson Jr., went before the press corps at the Pentagon to announce that the submarine was lost with all hands. President John F. Kennedy ordered all flags to be flown at half-staff on 12–15 April in honour of the 129 lost submariners and shipyard personnel.

Cause

Deep-sea photography, recovered artefacts, and an evaluation of her design and operational history permitted a Court of Inquiry to conclude *Thresher* had probably suffered the failure of a salt-water piping system joint which relied heavily on silver brazing instead of welding. Earlier tests using ultrasound equipment found potential problems with about 14% of the tested brazed joints, most of which were determined not to pose a risk significant enough to require a repair. High-pressure water spraying from a broken pipe joint may have shorted out one of the many electrical panels, causing a shutdown ("scram") of the reactor, which in turn caused loss of propulsion. The inability to blow the ballast tanks was later attributed to excessive moisture in the submarine's high-pressure air flasks, moisture which froze and plugged the flasks' flowpaths while passing through the valves. This was later simulated in dock-side tests on *Thresher*'s sister sub, *Tinosa*. During a test to simulate blowing ballast at or near test depth, ice formed on strainers installed in valves; the flow of air lasted only a few seconds. Air dryers were later retrofitted to the high-pressure air compressors, beginning with *Tinosa*, to permit the emergency blow system to operate properly.

Subsequent study of SOSUS (sound surveillance system) data from the time of the incident has given rise to doubts of whether flooding preceded the reactor scram, as no impact sounds of the high pressure water in the compartments of the submarine could be detected on instrument recordings from SOSUS at the time. Such flooding would have been a significant sonic event, and no evidence of that can be found in the recorded data.

Submarines typically rely on speed and deck angle (angle of attack) rather than deballasting to surface; they are propelled at an angle towards the surface. Ballast tanks were almost never blown at depth, and doing so could cause the submarine to rocket to the surface out of control. Normal procedure was to drive the submarine to periscope depth, raise the periscope to verify the area was clear, then blow the tanks and surface the submarine.

At the time, reactor-plant operating procedures did not allow for a rapid reactor restart following a scram, or even the ability to use steam remaining in the secondary system to propel the submarine to the surface. After a scram, standard procedure was to isolate the main steam system, cutting off the flow of steam to the turbines providing propulsion and electricity. This was done to prevent an overrapid cool-down of the reactor. Thresher's reactor control officer, Lieutenant Raymond McCoole, was not at his station in the manoeuvring room, or indeed on the boat, during the fatal dive. McCoole was at home caring for his wife who had been injured in a household accident – he had been all but ordered ashore by a sympathetic Commander Harvey. McCoole's trainee, Jim Henry, fresh from nuclear power school, probably followed standard operating procedures and gave the order to isolate the steam system after the scram, even though *Thresher* was at or slightly below its maximum depth. Once closed, the large steam system isolation valves could not be reopened quickly. Reflecting on the situation in later life, McCoole was sure he would have delayed shutting the valves, thus allowing the boat to "answer bells" and drive itself to the surface, despite the flooding in the engineering spaces. Admiral Rickover later changed the procedure, creating the "Fast Recovery Start-up" procedure. The Fast Recovery Start-up allows an immediate reactor restart and for steam to be withdrawn from the secondary system in limited quantities for several minutes following a scram.

In a dockside simulation of flooding in the engine room, held before *Thresher* sailed, it took the watch in charge 20 minutes to isolate a simulated leak in the auxiliary seawater system. At test depth with the reactor shut down, *Thresher* would not have had 20 minutes to recover. Even after isolating a short-circuit in the reactor controls, it would have taken nearly 10 minutes to restart the plant.

Thresher likely imploded at a depth of 1,300–2,000 ft (400–610 m

The U.S. Navy has periodically monitored the environmental conditions of the site since the sinking and has reported the results in an annual public report on environmental monitoring for U.S. Naval nuclear-powered craft. These reports provide specifics on the environmental sampling of sediment, water, and marine life which was done to ascertain whether *Thresher*'s nuclear reactor has had a significant effect on the deep ocean environment. The reports also explain the methodology for conducting deep-sea monitoring from both surface vessels and submersibles. The monitoring data confirm that there has been no significant effect on the environment. Nuclear fuel in the submarine remains intact.

Declassified information in December 2018 showed that USNR Commander (Dr) Robert Ballard, the oceanographer credited with locating the wreck of RMS *Titanic*, was sent by the Navy on a mission under cover of the search for *Titanic* to map and collect visual data on *Thresher* and *Scorpion* wrecks. Ballard had approached the Navy in 1982 for funding to find *Titanic* with his new deep-diving robot submersible. The Navy conditionally granted him the funds if the submarine wrecks were surveyed before *Titanic*. Ballard's robotic survey showed that the depth *Thresher* had sunk caused implosion and total destruction; the only recoverable piece was a foot of marled pipe. His 1985 search for *Scorpion* revealed a large debris field "as though it had been put through a shredding machine." His obligation to inspect the wrecks completed, and the radioactive threat from both was established as small, Ballard then searched for *Titanic*. Financial limitations gave him 12 days to search and the 'debris-field search technique' he had used for the two submarines was applied to locate *Titanic*.

Alternative theory of the sinking: electrical failure

On 8 April 2013, Bruce Rule, an acoustic data expert, published his own analysis of the data collected by USS *Skylark* and Atlantic SOSUS arrays in a paper in the *Navy Times*. Rule based his analysis on SOSUS data that was highly classified in 1963 and was not discussed in open session of the Court of Inquiry and was not revealed at the congressional hearings. A retired Navy captain and former commanding officer of the same class of submarine as *Thresher*, citing Rule's findings, has called for the U.S. government to declassify the data associated with the boat's sinking, and presented an alternative disaster sequence based upon the acoustic data.

Rule concluded that the primary cause of the sinking was a failure of the electrical bus that powered the main coolant pumps. According to Rule, SOSUS data indicates that after two minutes of electrical instability, the bus failed at 9:11 a.m., causing the main coolant pumps to trip off. This caused an immediate reactor scram, resulting in a loss of propulsion. *Thresher* could not be deballasted because ice had formed in the high-pressure air pipes, and so she sank. Rule's analysis holds that flooding (whether from a silver brazed joint or anywhere else) played no role in the reactor scram or the sinking, and that *Thresher* was intact until she imploded.

In addition to the SOSUS data that does not record any sound of flooding, the crew of *Skylark* did not report hearing any noise that sounded like flooding, and *Skylark* was able to communicate with *Thresher*, despite the fact that, at test depth, even a small leak would have produced a deafening roar. Additionally, the previous commander of *Thresher* testified that he would not have described flooding, even from a small-diameter pipe, as a "minor problem".

Rule interprets the communication "900" from *Thresher* at 9:17 a.m. as a reference to test depth, signifying that *Thresher* was 900 feet (270 m) below her test depth of 1,300 feet (400 m), or 2,200 feet (670 m) below sea level. According to Rule the SOSUS data indicates an implosion of *Thresher* at 09:18:24, at a depth of 2,400 feet (730 m), 400 feet (120 m) below her predicted collapse depth. The implosion took 0.1 seconds, too fast for the human nervous system to perceive.

HAVE A LAUGH

Sherlock Holmes and Dr. Watson went on a camping trip. After a good meal and a bottle of wine, they laid down for the night, and went to sleep. Some hours later, Holmes awoke and nudged his faithful friend.
"Watson, look up at the sky and tell me what you see." Watson replied, "I see millions and millions of stars."
"What does that tell you?" Watson pondered for a minute. "Astronomically, it tells me that there are millions of galaxies, and potentially billions of planets. Astrologically, I observe that Saturn is in Leo. Horologically, I deduce that the time is approximately a quarter past three. Theologically, I can see that God is all powerful and that we are small and insignificant. Meteorologically, I suspect that we will have a beautiful day tomorrow. What does it tell you?" Holmes was silent for a minute, then spoke. "It tells me that someone has stolen our tent."

Late one night a burglar broke into a house and while he was sneaking around he heard a voice say, "Jesús is watching you." He looked around and saw nothing. He kept on creeping and again heard, "Jesús is watching you." In a dark corner, he saw a cage with a parrot inside. The burglar asked the parrot, "Was it you who said Jesús is watching me" The parrot replied, "Yes." Relieved, the burglar asked, "What is your name?" The parrot said, "Clarence." The burglar said, "That's a stupid name for a parrot. What idiot named you Clarence?" The parrot answered, "The same idiot that named the rottweiler Jesús."

A proud and confident genius makes a bet with an idiot. The genius says, "Hey idiot, every question I ask you that you don't know the answer, you have to give me \$5. And if you ask me a question and I can't answer yours I will give you \$5,000." The idiot says, "Okay." The genius then asks, "How many continents are there in the world?" The idiot doesn't know and hands over the \$5. The idiot says, "Now me ask: what animal stands with two legs but sleeps with three?" The genius tries and searches very hard for the answer but gives up and hands over the \$5000. The genius says, "Dang it, I lost. By the way, what was the answer to your question?" The idiot hands over \$5.

ROYAL AUSTRALIAN NAVY....SHIP HISTORY

HMAS QUEENBOROUGH





Class	Q Class	Length	358ft 9in	
Туре	Destroyer/Anti Sub. Frigate	Beam	35ft 9in	
Builder	Swan Hunter (England)	Draught	9ft 6in	
Laid Down	6 November 1940	Speed	36 knots	
Launched	16 January 1942	Propulsion	Parsons Geared turbines	
Commissione	20 October 1945	Horsepower	40,000	
d				
Displacement	2,020 tons	Armament	2 x 4in Guns	
			2 x 40mm Bofors	
Crew	220 Officers and men		Anti-Submarine Mortars	

Queenborough was one of eight Q Class destroyers built for the Royal Navy. She commissioned in the Royal Navy as HMS *Queenborough* on 30 November 1942 under the command of Commander Eric Percival Hinton, DSO, MVO, RN. HMS *Queenborough* served with distinction in the Arctic, the Mediterranean and the Indian and Pacific Oceans.

In 1945 *Queenborough* was transferred on loan from the Royal Navy to the Royal Australian Navy. She commissioned as HMAS *Queenborough* at Sydney on 20 October 1945 under the command of Commander Arnold H Green DSC*, RAN.

Queenborough served in Australian waters until January 1946 when she began preparations for transfer to the Reserve at Sydney. She was placed in Reserve on 20 May 1946. *Queenborough* was taken in hand by Cockatoo Island Dockyard in May 1950 for conversion to a modern fast anti-submarine vessel.

The conversion was completed at the end of 1954 and she recommissioned on 7 December 1954 as a unit of the 1st Frigate Squadron. When completed by the conversion of three sister ships from destroyers to frigates, the Squadron comprised HMA Ships *Quadrant*, *Queenborough*, *Quiberon* and *Quickmatch*. Another sister ship, *Quality*, also transferred from the Royal Navy, was not converted.

In February 1955 *Queenborough* proceeded to the United Kingdom for exercises with the Royal Navy and returned to Australia in December 1955. From September 1956 to July 1957 she served in Southeast Asia. She undertook a further five deployments to Southeast Asia, with one each year between 1959 and 1963.



HMAS Queenborough leaving Sydney Harbour after conversion to fast Anti-Submarine Frigate

On 10 July 1963 *Queenborough* was paid off to the control of the General Manager, Williamstown Dockyard. She again recommissioned on 28 July 1966, for service as a training ship, and undertook a series of regular exercises and training duties.

Queenborough paid off on 7 April 1972, having steamed some 443,236 miles in the RAN. On 8 April 1975 the ship was sold to Willtopp (Asia) Ltd through the firm's Agents, Banks Bros and Streets, of Sydney. On 2 May 1975 she was towed from Bradleys Head in Sydney Harbour to Jubilee Engineering Works, Balmain, to be prepared for towing to Hong Kong.

ROYAL AUSTRALIAN NAVY NEW SHIPS 70's, 80's, 90's.

HMAS Ballarat (ll):



HMAS *Ballarat* (II) is the sixth of eight Anzac class frigates built by Tenix Defence Systems at Williamstown, Victoria for the Royal Australian Navy. The design is based on the German Meko 200 frigate.

Ballarat is a long-range frigate capable of air defence, surface and undersea warfare, surveillance, reconnaissance and interdiction. *Ballarat*'s combat capabilities have been significantly improved under the Anti-Ship Missile Defence upgrade program, a world class program that provides an enhanced sensor and weapons systems capability. The upgrade showcases Australian design and integration capability, with new Phased Array Radar technology designed by CEA Technologies in Canberra, upgrades to combat systems performed by Saab Systems in South Australia, and platform integration design by BAE Systems in Victoria.

Ballarat is fitted with an advanced package of air and surface surveillance radars; omni-directional hull mounted sonar and electronic support systems that interface with the state-of-the-art 9LV453 Mk3E combat data system. The ship can counter simultaneous threats from aircraft, surface vessels and submarines.

The ship's main armament comprises one Mark 45 capable of firing 20 rounds per minute, ship launched Mark 46 torpedoes and a Mark 41 vertical launch system for the Evolved Sea Sparrow missile. *Ballarat* also has eight anti-ship/land attach canister launched harpoon missiles and a vertical launch system for the Evolved Sea Sparrow Missile. The ship's other defence systems include the Nulka active missile decoy system, off board chaff and a torpedo countermeasures system. HMAS *Ballarat*, like her sister frigates HMA Ships *Anzac*, *Arunta*, *Parramatta*, *Perth*, *Stuart*, *Toowoomba* and *Warramunga* features a "combined diesel or gas" (CODOG) propulsion plant which enables the ship to sustain sprint speeds of greater than 27 knots and allows an operational range in excess of 6,000 nautical miles at 18 knots.

The ship can embark Navy's latest multi-role Sikorsky/Lockheed Martin MH-60R Seahawk helicopter which has enhanced anti-submarine, anti-surface warfare and Search and Rescue capabilities. Embarkation of a helicopter also provides the ship with the capability to deliver air-launched missiles and torpedoes.

HMAS *Ballarat* is the second Royal Australian Navy ship to bear the name. HMAS Ballarat (I) was one of sixty Australian Minesweepers (commonly known as corvettes) built during World War II.

HMAS *Ballarat* is currently deployed under Operation MANITOU, the Australian Government's contribution to the international effort to promote maritime security, stability and prosperity in the Middle East region (MER). An enhanced security environment ensures Australia's safe and open access to the region while fostering trade and commerce. This is Ballarat's second and Navy's 67th rotation of a Navy vessel to the MER since 1990.



HMAS Ballarat, deployed under Operation MANITOU, conducts a combined patrol in the North Arabian Gulf in support of the Combined Task Force 152's mission to promote regional stability and security.

Туре	Frigate FFH	Displacement	3,600 tonnes
Role	e Air /Surface/underwater Warfare		118 Metres
Builder	Tenix Defence System	Beam	14.8 Metres
Laid Down	4 August 2000	Draught	4.5 Metres
Launched	25 May 2002	Speed	27 knots
Commissioned	26 June 2004	Crew	177 officers and sailors
Propulsion	1 x GE 4M2500 Gas Turbine	Armament	Mk 41 Sea Sparrow Missile
	2 x MTU 12V 1163 Diesel Motors		Harpoon anti-ship missile
			1 x 5in Mk45 mod2 Au RF gun
			4 x 50Cal Machine guns
			2 x Mk32 Triple Torpedo Tubes
			Decoy launchers
Helicopter	1 x MH-60R Seahawk		

