



IN DEPTH

Official Newsletter of the Submariners Association

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The Submariner

“Of all the branches of men in the Forces there is none which shows more devotion and faces grimmer perils than the Submariner; great deeds are done in the air and on the land, nevertheless nothing surpasses your exploits.”
Sir Winston Churchill 1943

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EDITORIAL

Hello Everyone

I hope that you all had a very happy Christmas and may I wish everyone all the best for the New Year of 2025. Here is the first of your 2025 Issues of In Depth - this is Issue No. 87. 2024 'been and gone' already - doesn't time fly! In the last Issue (No. 86) I included photos of 'Roll Out' and 'Launch' of HMS AGAMEMNON which is now sat alongside the Wet Dock Quay in the Devonshire Dock for 'Final Fitting Out', 'Power Range Testing' and 'Systems Commissioning'. Rather luckily the 'Roll Out' & 'Launch' took place shortly before a fire broke out in the Devonshire Dock Hall on 30th October. Few details of the fire are available – seven shipyard personnel were taken to hospital for precautionary checks but were allowed home soon after. Investigations into the cause fire and its results are still taking place and it is to be hoped that there will be no adverse effect on the rest of the Astute Programme, on the Dreadnought Programme or on AUKUS.

As a reminder that these Submariners get everywhere – former United States President Jimmy Carter who has recently died at the age of 100 - served in the United States Navy from 1946 to 1953 and was selected, trained and qualified by US Navy Admiral Hyman Rickover as one of their very early Nuclear Submariners. Jimmy Carter left the USN after his father died to run the family peanut farming business before getting involved in politics and the rest, as they say, is history!

There is a request from Nigel Mellor for volunteer 'Crossed the Bar' coordinators for 'We Remember Submariners' who are willing to liaise with family and friends when that time comes. If you think this is something you could do then please put your name forward.

I was having a look at the Website of the Submarines Association of Australia and found the following - which I think you will all appreciate:

The Submarine Tradition "There is something about the submarine service. It tends to create a bond between those who have served that is born of trust. Every submariner who ever put to sea and submerged has placed in the hands of another, their very lives. The bond is not one of close friendship, even though those do grow out of the time spent aboard a boat. It is one of mutual respect - blind to colour, ethnicity, religion, nationality and gender. The bond is one of personal responsibility. Not everyone has it.

Some don't even know what personal responsibility is. Submariners know what it is. It is their way of life!

You will find the usual items in this issue of In Depth No 87 apart from 'New & Rejoining Members' where only basic information is currently available but there is some information on the current status of overall membership of the SA, the Submarine Family and the Friends of the Submarine Museum. I hope you will find something of interest to read in this Issue – if there is anything else you think I should include please let me know!

Only one new book in this issue – “Every Second Counts” by Captain David Wixon – a Submarine Engineer many of you may know and might have served with.

There has been a bit of a flurry of articles in December on Submarines and Submarine related topics and I have tried to include most of the more interesting ones.

Please note that 'In Depth' Issue No. 88 will be published on 1st April 2025. Contributions are required to be with the Editor (me) by 15th March 2025 - see contact details below. Please make sure I get your contributions in good time by Email or Snail Mail as appropriate!

Regards, Barrie Downer

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CHAIRMAN'S DIT

A belated Happy Christmas and hopefully, a prosperous New Year in 2025 to all Submariners both Veterans and those fortunate enough to be still Serving.

This will be my last “Chairman Dit” for 'In Depth' as I have completed my three years and will not be standing for re-election at the 2025 AGM in the Holiday Inn Leicester (21st to 23rd March). If you wish to hear my handover dit (with a tear in my eye) to the new Chairman go on the SA Website and book in join us for the Family Weekend.

2022 was a happy year as Chairman, I had the privilege of bringing the SA into the TSF as a family member. A lot of hard work was involved for the National Management Committee (NMC), which changed to the Submariners Association Committee (SAC) soon after.

Joining TSF involved major changes for our Association. The biggest was the stopping of National Subscriptions. This always brings a smile to my face as I remember the '2 pence a day' increase in subs, a very controversial issue during Jim McMaster's tenure as Chairman.

TSF was a method of combining three families: SA, WRS and the Society of Friends of the Royal Navy Submarine Museum. The reasoning behind this was to ensure the continuous life of Submarine Veterans groups, standing alone undoubtedly has the risk of diminishing numbers as age takes its toll. One main problem with combining the families is that veterans thought their Associations would lose their identity.

2025 will be a sad year as I'm sorry to say the concept of TSF continuing to combine the families has failed. After lengthy discussions between the RNRMC Board and the TSF Board, TSF is expected to cease under its old Memorandum of Understanding (MOU) replacing it with:

1. The creation of a Submarine Community Support Council (SCSC).
2. The setting up of The Submarine Family Fund (SFF) under the umbrella of RNRMC.

If you signed up for TSF and donate I would encourage you to continue donating as this will ensure the SFF can continue to service grant requests. This is a very broad generalisation of how I see the future.

One thing is for sure 2025 will be an exciting year for us all so we forge ahead with one aim, to continue supporting our veterans.

Iain

National Chairman

VETERANS IDENTITY CARDS

Not got your Veterans ID Card yet?

Please see the link below for an update on applying for Veterans ID Cards:

https://www.gov.uk/government/news/hm-armed-forces-veteran-cards-will-officially-launch-in-the-new-year-following-a-successful-assessment-from-the-central-digital-and-data-office?fbclid=IwAR0Vp4vH_D7kQUr6N96pgKEz5zZteXeCPgNj2wVHLt8SGEbPqGxjBUcQW8M

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Cover Picture: HMS TRIUMPH ESCORTED THROUGH RHU NARROW FOR THE FINAL TIME

SUBMARINE & SUBMARINER LOSSES OF WWII

OCTOBER 1944

No Submarines were lost in October 1944 but one Submariner was lost. He was:

AB Frederick Peter Clowrey D/SSX 21453

Frederick Clowrey was born in Manchester, Lancashire in the 3rd Quarter of 1919 was the son of Frederick Peter Clowrey (Senior) and Annie Clowrey (nee Meechin).. Frederick joined the Royal Navy and then Submarines. On 25th October 1944 he was onboard **HMS STOIC** when a torpedo attack was made on a Japanese merchant vessel off the north coast of Java. The attack was unsuccessful and the Commanding Officer (Lt. Peter Barnsley Marriott, DSO, RN) then surfaced for a gun action. Although several hits were made and the gun jammed at least once, the enemy counter attacked with gunfire and then attempted to ram. The submarine was dived to safety but, unfortunately the gun trainer, Frederick Clowrey, was then found to be missing. It was assumed that he had accidentally been left on deck or lost overboard and had either drowned or had been taken prisoner. Twenty-five-year-old Frederick Clowrey is commemorated on the Plymouth Naval War Memorial on Panel No. 86 Column No. 1

NOVEMBER 1944

One Submarine was lost in November 1944 and this was **HMS STRATAGEM**. On Wednesday 22nd November 1944 the Submarine was on patrol in the Malacca Straits off southwest Malaya. Having sunk a Japanese cargo ship the Submarine was attacked and badly damaged by depth charges from the Japanese submarine chaser CH-35 after being detected by aircraft. Ten crew managed to escape, of which eight were taken Prisoner of War. Only three of these (who were taken to Japan) survived captivity. The other five were executed in Singapore by the Japanese. The Crew Members were:

Officers:

Lt Clifford Raymond Pelly

Lt Francis William Leslie Winterbottom

Lt Brian Benz

Lt Donald Cameron Douglas (Survivor)

T/Sub Lt Cyril Ernest Prentice RNVR

Wt Eng Frederick Somerton Rayner

Ratings:

PO Harry Pickard P/JX 137672

PO George Henry Howard D/JX 134553

A/PO George Lee P/JX 145964

L/Sea Thomas William Gregson D/JX 303291

L/Sea Francis John McAlinden D/JX 154467

L/Sea Gibbs. (Survivor)

A/LSea Thomas Moorhouse C/JX 159150

AB Arthur Leonard Westwood P/JX 220335

AB Francis John James Phillips D/JX 420937

AB Robinson (Survivor)

AB William Handy P/SSX 16409

AB Brian Hugh Mitchell P/JX 338818

AB John Richardson P/JX 146168

AB Brian Faulkner P/JX 501087

AB Stanley William Baker P/JX 418354

AB Frederick Bryson D/JX 422347

AB Frederick William Stanway D/JX 368447

AB Reginald George Anstee C/JX 145021

AB Leslie William Thompson C/JX 392378

AB John Hayes C/JX 221692

A/PO Tel Leonard Walter Pearce P/JX 144239

A/Tel John Edward Woolley P/JX 258173

Tel Ronald Graham P/JX 271174

Tel Douglas Cliff D/JX 361448

A/LSig Harold Powys Thomas D/JX 176017

L/Ck Robert Gilbert Weatherhead D/MX 65040

EA 4 Ronald Hall P/MX 56030

A/CERA William McKay P/MX 58555

ERA 3 Norman Ernest Snell P/MX 55037

ERA 4 Robert Gordon Williams P/MX 503451

ERA 4 Dennis Frederick Gibbons P/MX 117062

A/ERA4 David Patrick C/MX 119629

Ch Sto Maurice Waites Welshman, DSM C/JX 149286

SPO Thomas McCauley P/K 65360

L/Sto John Henry Frankham P/KX 91545

A/LSto Basil Henry Preston P/KX 154564

A/Sto James Wilford Bishop C/JX 93231

A/LSto Edmond Brandon C/JX 92546

Sto1 Derek George Rendel Dracup P/KX 156066

Sto1 Class Thomas Irvine Brodie P/KX 140777
Sto1 James Watson P/KX 110375
Sto1 Alfred George Thorpe C/KX 143697
Sto1 Sidney Joseph Dickerson C/KX 166027
Sto1 Farquhar Booth C/KX 171814
Sto1 Reginald Charles Howlett D/JX 164938

Four other Submariners are reported to have died in November 1944. They were:

AB Robert Wilson P/JX 515741

Robert Wilson was born in Newcastle on Tyne on 19th October 1925 and he was the son of William and Lena Gladys Wilson of Longbenton, Northumberland. Nineteen-year-old Robert Wilson was serving in the Submarine Depot Ship **HMS MAIDSTONE** and he is reported to have died from injuries sustained in a train accident in Fremantle, Western Australia on 3rd November 1944 although full details of the accident are not reported. He is buried in the Perth War Cemetery in Western Australia in Grave No. QC10.

Sto 1 Thomas Acton P/KX 150614

Thomas Acton was born in Bolton in Lancashire on 9th June 1920 and he was the son of Thomas Acton (a labourer) & Fanny Acton of 23, Ashburner Street, Bolton (1921 Census). By late 1944 he had joined the Royal Navy, qualified as a Stoker 1st Class, and was serving in Submarine **HMS THULE**. He was taken ill and died from severe heat stroke/heat exhaustion on board HMS THULE on patrol in the Far East on 16th November 1944. Twenty-five-year-old Thomas Acton was buried at sea. He was the husband of Anna Acton of Belfast and he is commemorated on the Portsmouth Naval War Memorial on Panel No. 86 Column No. 3.

Sto1 Ronald Douglas Elliott P/KX 88582

Ronald Elliott was born in Windsor in Berkshire on 27th January 1918 and was the son of Josiah Sidney Elliott and Edith Alice Elliott (nee Moody). He joined the Royal Navy and served in Submarines and, on 1st August 1940 he was onboard Submarine **HMS OSWALD** when the Italian destroyer VIVALDI rammed the Submarine whilst it was on patrol in the Straits of Messina. The crew abandoned ship and were taken Prisoner of War. In November 1944 Ronald Elliott made an escape with another member of the crew but they were spotted and Ronald was shot & killed on 19th November 1944. He is buried in the Florence War Cemetery in Grave No. X.11.G.3. Ronald Elliott was the twenty-six-year-old husband of Olive Lilian Elliott (nee Tennant) of Chiswick – there was also one daughter. Ronald Elliott is commemorated on the Memorial Board to Windsor's

dead from two World Wars which is on the inside wall of the entrance to the Windsor Parish Church, Windsor, Berkshire.

Sto1 Keith John Goodwin P/KX 162847

Keith John Goodwin was born in Leicester on 22nd January 1925 and he was the son of John Henry Goodwin and Edith Lillian Goodwin. It is understood that he was a member of the crew of Submarine **HMS PROTEUS**. He is reported to have died from asthenia (general weakness) and acute encephalitis on 23rd November 1944. He is buried in Leicester (Gilroes) Cemetery in Leicester in Section G Grave No. 36

DECEMBER 1944

No Submarines were lost in December 1944 but three Submariners are reported to have died. They were:

Leading Telegraphist Ronald Hiatt P/JX 166741

Ronald Hiatt was born in Portsmouth on 14th February 1923 and he was the son of George Edward Hiatt (a printer) and Lucy Hiatt. On 2nd December 1944 he was a lookout in Submarine **HMS STURDY** when a Japanese communications vessel was attacked and sunk with demolition charges in the Makassar Straits. After diving Ronald Hiatt was found to be missing. Despite resurfacing and searching he could not be found. Twenty-one-year-old Ronald Hiatt of 36, Boston Road, Wymering, Portsmouth is commemorated on the Portsmouth Naval War Memorial on Panel No. 84 Column No. 2.

One member of the crew of Submarine **HMS SPEARHEAD** was lost on Tuesday 26th December 1944. He was:

AB Nathaniel Harris D/SSX 23397

Nathaniel Harris was born in Glasgow, Lanarkshire on 23rd February 1919 and he was the son of Esther Harris (nee Goodson). Having joined the Royal Navy and trained as a Submariner he was a member of the crew of 'Submarine HMS SPEARHEAD'. He died on 26th December 1944 when he was lost overboard following an accidental gun explosion. Nineteen-year-old Nathaniel Harris, who was unmarried, is commemorated on the Plymouth Naval War Memorial on Panel No. 86 Column No. 2

One member of the Crew of Submarine **HMS TIPTOE** is reported to have died on 26th December 1944. He was:

Tel Ronald William Barr C/JX 619020

Ronald Barr was born in Plumstead, Greenwich, London on 9th December 1925 and he was the son of Percy Thomas Howard Barr (a night telephonist at the

GPO) and Hilda Gladys Barr (nee Dew). He joined the Royal Navy and submarines and was a member of the crew of Submarine HMS TIPTOE which, in December 1944, was 'fitting out' at Portsmouth in preparation for a deployment to the Far East. He died in the Royal Naval Hospital at Chatham on 26th December 1944 – he had been suffering from tubercular meningitis, pulmonary tuberculosis and generalised military tuberculosis. Nineteen-year-old Ronald Barr is buried in the Woolwich (New) Cemetery in London in Section 8 Grave No. 30.

SUBMARINE COMMISSIONING CREW LISTS

Do you have any Submarine Commissioning, Decommissioning or Re-dedication Crew Lists. These are required for an ongoing Project - the construction of a '**Chronology of Submariners**'. This Chronology is very useful when a Submariner who is not an Association Member 'Crosses the Bar' and details of his or her service are requested by the various Submariners organisations.

What is required are 'First Commission' Crew Lists as follows: PORPOISE, GRAMPUS, CACHALOT, WALRUS, OBERON, ONYX, ORPHEUS, ODIN, OTUS, UNICORN, AUDACIOUS, ANSON & AGAMEMNON. Also Crew Lists for subsequent Commissions of any 'S', 'T', 'A', 'O' Class or 'P' Class Diesel Boats, 'V', 'C', 'S', 'T' & 'ASTUTE' SSNs & 'RESOLUTION' or 'VANGUARD' Class SSBNs.

Crew Lists for any Commissioning or Decommissioning of any Diesel 'A', 'S' or 'T' Class Boat refitting in Home Dockyards or in Malta, Singapore or Sydney are also required if available!. Have a look through your Records and 'Ditty Boxes' and see what you can find. Scanned copies are preferred but any original paper Lists sent will be copied and the originals returned. You can contact me by E Mail, Snail Mail or Telephone - see Page 2.

Thanks, Barrie Downer

DONATIONS & BEQUESTS

For anyone thinking about making Donations or leaving a Bequest in your Will please remember one of the following:

- (1) The Submariners Association
 - (2) The Submarine Fund – part of the Royal Navy & Royal Marines Charity (RNRMC) – details can be found on RNRMC Website.
 - (3) The Submarine Family
 - (4) The Royal Navy Submarine Museum. Any Donations or Bequests for the Submarine Museum should be directed to either the 'Friends of the Submarine Museum' or to the 'National Museum of the Royal Navy'.
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SUBMARINERS ASSOCIATION WEBSITE UPDATE DECEMBER 2024

The Submariners Association website continues to perform strongly, with steady growth in registered users. We're excited to announce that the number of registered users is expected to surpass 1,200 in the coming weeks!

In the last 90 days, the Website has seen 3.8K active Users. The United Kingdom leads in User activity with 2.2K active Users, followed by the United States with 676 and Australia with 249.

Member engagement is vital to keeping the Website both useful and informative. There's a real opportunity to enhance this engagement, and your contributions - be it sharing updates, posting in Forums, or providing feedback - can make a significant impact. Let's continue to grow and improve together!

On this last point - Member engagement in recent weeks have been disappointing.

Regards

Gary

THE ON-LINE BOOK OF REMEMBRANCE (OBOR) AN UPDATE

The On-Line Book of Remembrance (OBOR) is a 'Work in Progress' and thanks are due to all those that have been involved in producing stories for OBOR. Here is an update on how we've been doing.

Of the 5,950 names listed:

Have a story	851	14.3%
Have a photo	297	5.0%
Have both	218	3.7%

Thoughts are that it might be a nice idea if there could be some indication in the lists (particularly the 'People' lists) which showed whether they had a story or photo - maybe an icon, or maybe embolden with colour the entries for those with stories/photos?

There hasn't been too much progress over the past couple of years with stories about 'Units' (Submarines/Ships etc). Results are as per the following table which also indicates the variety of naval service submariners have been involved with.

Type	With story	Out of	Percent
Submarine	148	410	36%
Midget Submarine	6	11	55%
Allied Submarine	8	13	62%
Submarine Depot ship	3	34	9%
Shore Establishment	2	37	5%
Aircraft Carrier	0	3	0%
Auxiliary	0	1	0%
Battleship	0	4	0%
Coastal Motorboats (CMBs)	0	1	0%
Corvette	0	1	0%
Cruiser	1	12	8%
Destroyer	0	5	0%
Frigate	0	5	0%
Ice Patrol Ship	0	1	0%
Landing Ship	0	1	0%
Merchant Ship	0	1	0%
Minelayer	0	1	0%
Q-Ship	1	1	100%
Sloop	3	3	100%

So far **490** (8.2%) of the people have neither a personal story nor one about their unit(s) so far.

There has been an increasing number of 'visitor comments' lately, maybe some due to the Embankment QR Code plaque recently installed, others due to the excellent Search Engine Optimisation (SEO) that is installed, which means that anyone searching for recent news, e.g. about HMS TROOPER, finds the OBOR page on that unit at the top of the Google Page 1. It may be helpful to have an 'Optional' Section on the 'Visitor Comments' Form with "How did you find this page? i.e. OBOR plaque with QR code, web search, etc."

To date, we currently have **131** approved comments, **20** of them in the last month, some of them maybe as a result of this year's Remembrance Ceremonies?

As ever with anything 'Online' inappropriate (SPAM) comments can be an issue – there were some 348 of them in the fortnight around Remembrance!. The vast majority of them have been on the HM S/M SNAPPER page. Luckily these are automatically sent to SPAM via the excellent SPAM filter installed and no genuine comments have been ditched. Only one dodgy comment slipped past the SPAM filter and that was quickly spotted and removed.

The OBOR is accessible via the QR Code or by accessing the 'The Submarine Family', the 'Friends of the Submarine Museum' or the Submariners Association Websites. The QR Code Plaque will eventually be available at various Submarine Memorial around UK and elsewhere.

Peter Jeanneret

By Editor

Having mentioned HMS TROOPER (above) the latest information which was announced on 26th November is that the wreck found in October this year in 253 meters of water to the north of Donoussa Island in the Aegean has now been confirmed as that of HMS TROOPER. All those who have lost family members in that tragic Submarine have been (or will be informed) and the relevant OBOR Page has already been amended.

Of the Stories currently posted in the OBOR I have (as part of the OBOR Team) provided the Stories for all the Submarine COs & Submarine Engineers lost/died whilst serving and also for all those lost in X-Craft and Chariots. There are also many Stories contributed by Malcolm B1enkinsopp and members of the Society of Friends of the Submarine Museum

REMEMBRANCE 2024 IN BARROW



THE HMAS AE1 & AE2 MEMORIAL

ROYAL NAVY MEDIA RELEASE HMNBC 27/24 Monday, 4 November 2024

SUBMARINERS GATHER IN LONDON FOR ANNUAL REMEMBRANCE SERVICE

Serving and Veteran Royal Navy Submariners travelled to London last weekend (November 2-3) for the annual Submariners Remembrance Service. The Service is held the week before the nation's main Remembrance commemorations to allow Submariners to attend both and was first held over 100-years ago in 1923, following the establishment of the National Submarine War Memorial. Hundreds of members of the Silent Service attended events at Westminster Abbey on the Saturday, and Middle Temple Gardens on Sunday, paying their respects to those Submariners who have gone on "eternal patrol".

Events began on Saturday, November 2, with the dedication of the Submariner's Remembrance Garden at Westminster Abbey and was followed by wreath laying in the West Cloisters of Westminster Abbey at the Special Forces Memorial. On Sunday, the main Remembrance Service and Parade at Middle Temple Gardens was attended by Commodore of the Submarine Service, Commodore Paul Dunn OBE, serving Submariners and members of the Submariners Association. During the service, a two-minute silence was observed, wreathes were laid at the Drumhead and Submariners gave Salute to absent friends.

A group of Submariners from HMS SULTAN attended the event, with one of the youngest members of the Submarine Service, trainee Engineering Technician Marine Engineering, AB Freddie Lawson laying a wreath on behalf of the training establishment. "I am so happy to be part of the Submariner's Remembrance and to be asked to lay a wreath on behalf of HMS SULTAN is a huge honour," said AB Lawson. "I decided to join the Submarine Service after visiting one of the boats. I was really attracted to being part of the submariner community and I am so grateful to join with serving and veteran submariners this weekend to remember those who have served in the past."

The Remembrance Weekend, which is organised by the Submariners' Association, serves not only as a memorial, but as an opportunity for serving and veteran submariners to come together to maintain the special bonds of friendship, loyalty, and comradeship, which were formed during service on Royal Navy Submarines. Today, all Royal Navy Submarines are based and operated at HM Naval Base Clyde in Argyll and Bute, Scotland, the Home of the UK Submarine Service.

Sent by: Royal Navy, Communications & Influence (RNCI) Regional Press Office (Scotland & Northern Ireland)



Members of the Submarine community at Middle Temple Gardens for the annual Submariners' Remembrance Service



Trainee Submariners from HMS Sultan lay wreaths during the service



Veterans of the Submarine Service lay wreaths at the Drumhead



Standard Bearers march on at Middle Temple Gardens

BAE DDH FIRE

From the (North-West) Evening Mail

The defence company said that early investigations indicate the fire, which happened on Wednesday (30th October 2024), has 'had a limited impact' and that work is continuing on Astute Boat Six. "We would again like to thank the emergency services and all our partners and agencies involved whose bravery and professionalism ensured our colleagues were quickly and safely evacuated from the area" a BAE spokesperson said.

"We're also grateful to the local community for their patience and co-operation throughout." The spokesperson added that only the affected area is accessible to essential personnel only but the remainder of the site is fully operational. The emergency response prevented significant damage to the facility and the submarine units, it is said. A full assessment of the impact and a comprehensive plan is still in progress before the company conducts remedial action. The statement in full said: "Following the fire in the Devonshire Dock Hall (DDH) at our Barrow in Furness site on Wednesday 30th October, a full investigation and clean-up activities are now underway. The affected area is accessible to essential personnel only but the remainder of the site is fully operational.

"We would again like to thank the emergency services and all our partners and agencies involved whose bravery and professionalism ensured our colleagues were quickly and safely evacuated from the area. We're also grateful to the local community for their patience and co-operation throughout. "The multi-agency response to the incident prevented significant damage to the DDH facility and the submarine units within it. We are continuing a full assessment of the impact and are developing a comprehensive plan to progress remedial action but early investigations indicate the fire has had limited impact. "Work continues on Astute Boat 6, which is currently in the water in the Devonshire Dock, and both the Dreadnought and SSN-AUKUS programmes are progressing."

ASTUTE CLASS SUBMARINE RECENTLY SPOTTED IN GIBRALTAR



THE NUCLEAR SUBMARINE DISMANTLING CONTRACT

Babcock International has awarded a recycling contract to KDC Veolia Decommissioning Services UK Ltd for the dismantling of SWIFTSURE the first decommissioned UK nuclear-powered submarine to undergo complete disposal, according to a press release from Babcock. This milestone, achieved in collaboration with the Defence Nuclear Enterprise (DNE), is an important step in the UK's Submarine Dismantling Project.

The project is based at Babcock's Rosyth facility in Fife and aims to recycle or reuse around 90% of the submarine's structure and components, including the pressure hull, pending radiological checks. The dismantling process follows extensive work by Babcock teams, who have already removed reactor systems and low-level

radioactive waste. The remaining stages will be managed within a specially designed 'in-dock' facility at Rosyth, which supports safe handling and environmental protection throughout the process.

SWIFTSURE is expected to be fully dismantled by 2026, paving the way for the eventual recycling of the entire decommissioned UK submarine fleet. Harry Holt, Chief Executive of Babcock's Nuclear Sector, spoke of the pioneering nature of the project. "This is a world first. We're applying our nuclear expertise and drawing on industry collaboration to set a standard for the safe disposal of all ex-service nuclear submarines," he said in the Babcock press release.

Veolia's Chief Operating Officer for Industrial, Water & Energy, John Abraham, underscored the project's environmental commitment. "This unique project will set a new sustainable standard for decommissioning and recycling this type of vessel," said Abraham, citing Veolia's 'Green Up' programme, which focuses on reducing pollution and preserving resources. To mark the beginning of SWIFTSURE's dismantling, more than 40 former crew members attended a ceremony at Rosyth, where Chris Carpenter, Head of Disposal at the Submarine Delivery Agency (SDA), performed a ceremonial steel cut on the hull. SDA CEO Sir Chris Gardner commented on the project's strategic significance, saying, "SWIFTSURE will serve as the demonstrator for the project, setting the course for dismantling all future submarines."

BAE Systems submits security enhancement plans in Barrow

Planning and development

By Daniel Hunt, Local democracy reporter

BAE Systems has lodged plans to create a more 'welcoming' environment and ensure 'necessary' security measures are in place between two educational buildings in Barrow.

The defence giants have submitted proposals for a scheme known as 'University of Cumbria Security Enhancement Project' to Westmorland and Furness Council.

The project is proposed to cover the area between the 'Submarine Academy of Skills and Knowledge' (SASK) and the under-construction 'University of Cumbria' Campus building on Barrow Island. Planning documents state: "The 'University of Cumbria Security Enhancement Project' aims to improve this area in between the SASK and University of Cumbria building, creating a more welcoming environment through landscaping and introducing a better flow of movement for the public to walk through within the site while ensuring that the necessary security measures are in place to protect BAE property." According to the design and access statement, the project involves a number of different aspects including Demolishing the existing 'Crossfields Gate,' 10 entrance gates, barrier and turnstiles, relocating the existing SASK Main Entrance by demolishing the existing and relocating it to the east side of the building, installing new fences, gates, and provide security-controlled access points (such as pedestrian turnstiles and vehicle barriers), positioning guarded welfare cabins at key access points to monitor and control entry, ensuring only authorised personnel can access the BAE site, replacing high, rigid fences with designs that maintain security but create a more welcoming environment, extending the SASK building to house a security office which will process security passes and ensure those entering BAE property have been cleared and installing new lighting to enhance visibility and safety while maintaining a pleasing atmosphere.

The statement adds: "The security enhancements should create a secure facility that meets the current standards set by BAE Systems and its partner agencies. The plan should include passive security measures, ensuring the building is approachable yet safe."

This planning application is under consideration by Westmorland and Furness Council.

THE ROYAL NAVY ASSUMES COMMAND OF HMS SULTAN

4th Nov 2024

Photos: LPhot Baz Swainsbury

The Royal Navy has assumed command of a shore base in Gosport once again. Leadership of HMS SULTAN and the Defence School of Marine Engineering (DSMarE) returned to the force following a ceremony on Friday 1st November. HMS SULTAN has been under the Command of the Defence College of Technical Training (DCTT) since 2012.

A 'Flag Haul Down' commemoration was held at the base to mark the transfer of Command from Number 22 Group Royal Air Force to the Royal Navy. Uniformed and civilian personnel were invited to the event alongside high-ranking military officials. These included the Commanding Officer of HMS SULTAN, Captain Mark Hamilton, The Commandant of the Defence College of Technical Training (DCTT), Brigadier Caroline Woodbridge-Lewin MBE and Royal Navy Director People and Training, Rear Admiral Jude Terry OBE. The tri-Service flag was brought down at the Establishment for the last time.



The Flag Haul Down Ceremony at HMS SULTAN



Captain Mark Hamilton, Brig Caroline Woodbridge-Lewin MBE & Rear Admiral Jude Terry OBE

Brig Caroline Woodbridge-Lewin MBE said it has been a genuine privilege to support the base's Commanding Officers and DSMarE staff and students. She added: "Their collective endeavours have ensured that the Royal Navy has been consistently provided with world class engineers fit and ready to deliver on operations in support of UK and NATO priorities. I am extremely proud of their achievements and look forward to continuing to work with HMS SULTAN as they maintain the home of the RNAESS, an enduring component of DCTT." She added: "Together we will work tirelessly to modernise and contextualise our delivery of training, whilst learning from each other, sharing best practice and resources, and continuing to solve problems to deliver world class training to the Royal Navy, Army and RAF."

Capt Hamilton said personnel trained at HMS SULTAN will be an integral part of the Royal Navy. He added: "The transition back to Navy Command marks another significant milestone for SULTAN and Royal Navy engineering. Since SULTAN was first founded it has been built on the root of engineering excellence and I am certain we will continue to grow and flourish."

"As we plan for the future, our highly skilled and valued engineers and technicians will remain at the heart of operations all over the globe. As technology and platforms evolve, we remain resolute in our aim, embracing innovation to ensure all our engineers and technicians are equipped with the skills to keep cutting-edge Royal Navy's ships, submarines and airframes at sea and in the air." Vice Admiral Martin Connell CBE, Second Sea Lord, said he believes world-class engineers will continue to be produced for the Fleet.

HMS SULTAN originally transferred from to Air Command as Defence combined marine, aeronautical, electronic and mechanical engineering, alongside communications and information systems training, into one technical training provision – DCTT. The Ministry of Defence (MoD) said the transfer of the base back to naval command will allow greater synergy with the Maritime Training Strategy, while allowing the Royal Navy to manage engineering training to make sure personnel are fully prepared for when they join the fleet.

The Royal Naval Air Engineering and Survival Equipment School (RNAESS), which trains RN Air Engineers and technicians in support of Fleet Air Arm operations, remains within DCTT under Air Command, retaining its strong links with aviation technical training across the services.

Fishermen catch US nuclear-powered submarine

Norwegian vessel has an unexpected haul – a 7,800 ton crucial part of the US Navy

Jörg Luyken, Daily Telegraph 14 November 2024

A Norwegian fishing boat has caught its largest ever haul – a US navy nuclear-powered submarine weighing in at 7,800 tons. The 32-foot fishing boat was on its way back to harbour in the northerly region of Troms on Monday when it discovered that a submarine had got tangled in its nets. “We had just emptied the nets and put them out again and were on our way back to harbour when we received a radio call from the coast guard,” Harald Engen, the ship’s captain, told local broadcaster NRK. The coast guard explained that the submarine had dragged the nets two nautical miles out to sea, where they were eventually cut off.

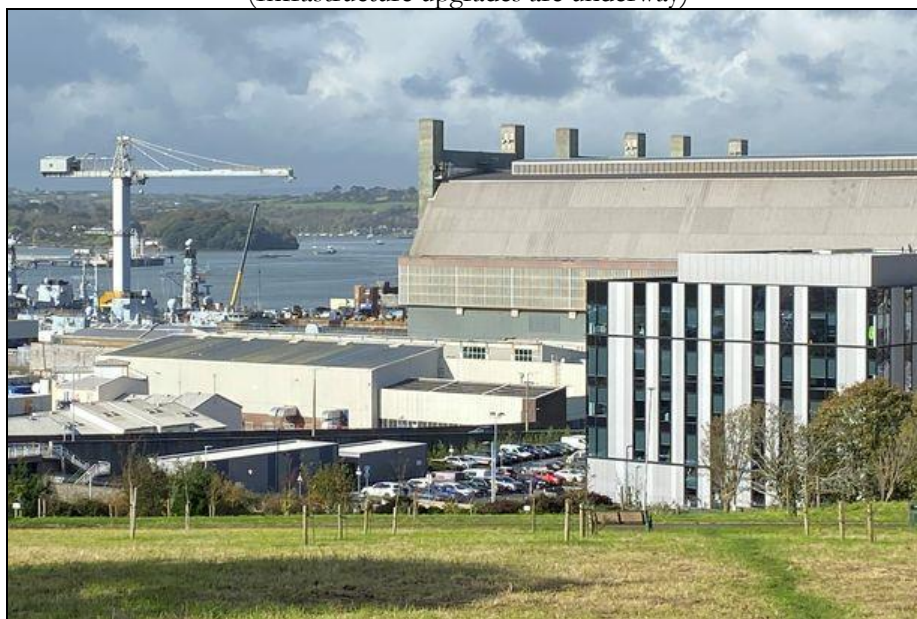
Mr Engen, 22, has estimated his losses at around 40,000 Norwegian Krone (£2,800), a number that is roughly double what he earned for his halibut haul that day. “I have heard of other boats getting caught nets but no one out here has ever heard that a submarine has done that,” he said.

The US embassy in Oslo later confirmed that the USS VIRGINIA a nuclear-powered attack submarine, got tangled up in the nets after making a scheduled stop at a harbour near Tromsø. A nuclear submarine is powered by a nuclear reactor, but not necessarily nuclear-armed. The fishing net got sucked into the submarine’s propellers and had to be cut out by an escort vessel provided by the Norwegian coast guard.

In 2021, Norway agreed to let US nuclear-powered submarines use a civilian port just outside Tromsø to swap out crew and take on new supplies. At the time, residents raised concerns that the military vessel could disturb civilian infrastructure. Some also protested about nuclear-powered vessels using a civilian port. The move came in light of the construction of a new fleet of Russian nuclear-powered submarines, the first of which came into service in 2021. The submarines are part of Russia’s Northern Fleet, which is stationed in the Murmansk province close to the Norwegian border. With tensions between Nato and Russia at their highest point in decades over Moscow’s invasion of Ukraine, the Norwegian Sea is seen as a critical arena in any future conflict.

Vital Update on Future of Devonport Dockyard

(Infrastructure upgrades are underway)



Devonport Dockyard Image: Alison Stephenson)

The £1Bn rebuild of parts of Devonport dockyard is continuing with work starting at two of its docks. In September 2024, dockyard operator Babcock International Plc reopened 9 Dock following completion of “the most significant package of infrastructure work since the early 2000s”. In an update to investors the company said the upgraded facility will support the delivery of the £560m programme to extend the operational life of Vanguard class nuclear submarine HMS Victorious. Babcock said work would now focus on huge upgrades to 10 Dock and 15 Dock in Plymouth. In a statement to the Stock Exchange the company said: “Following the award of the

manufacturing phase contract in 2024, the programme to upgrade 10 Dock with a new dock, berth, and logistics and production support facilities is progressing well. "Further infrastructure upgrades are underway at 15 Dock, in preparation to deliver the Base Maintenance Period (BMP) of the first Astute Class submarine to Devonport. These projects will enable our Devonport teams to support the Astute fleet for deep maintenance cycles over the coming years."

The UK is replacing its nuclear submarines with new ones. Astute Class submarines are currently taking over from the Trafalgar Class and the future Dreadnought Class will replace the Vanguard Class. The Babcock statement said: "We continue to make progress in meeting the current and future requirements of the UK MoD and Royal Navy and are working closely with them to jointly develop long-term strategies for people, infrastructure and transformation. "We are delivering substantial upgrades to existing critical infrastructure at Devonport to support the UK's future capability through a Major Infrastructure Programme (MIP). "

The company said the maintenance, life extension and facility improvements will support the Vanguard Class submarines "which are critical in supporting the UK's Continuous at Sea Deterrent and securing the long-term defence of the nation". It added: "We are entering our fourth year of the Future Maritime Support Programme, through which we sustain the entirety of the UK's submarine fleet, and where we work with the customer to enable continuous improved delivery into the future."

Just last week, the Government announced the scrapping of three Devonport warships: HMS Albion, HMS Bulwark and HMS Northumberland. But Luke Pollard, MP for Sutton and Devonport and under-secretary for state for the Armed Forces, stressed the future of the Dockyard was bright with new amphibious Multi-role support ships (MRSS), Devonport-based Type 26 frigates and enough submarine work to keep the dockyard busy for the next 70 years. In its report detailing the company's half-year results, Babcock stressed other key work was being carried out in Plymouth - particularly around training the workforce of the future. The statement said: "We are a key industrial partner on the UK's Nuclear Skills Taskforce, taking a leading role in helping to secure the critical nuclear skills needed across the defence and civil nuclear enterprise. "As part of our ongoing commitment to securing skills, we established the Babcock Engineering and Nuclear Skills building at City College Plymouth. The modern facility will enhance our growing workforce's capabilities by continuing to build a new pipeline of talent, while upskilling the existing workforce on the complex skills required to perform deep submarine maintenance. "Officially opened in September 2024 by the UK Minister for Defence Procurement, Maria Eagle, it marks the next phase of the Babcock Skills Academy, which is focused on addressing the current and future nuclear skills demand for our defence programmes and supporting the national nuclear endeavour across the defence and civil nuclear enterprise."

Shotley Submarine Memorial Service

The Colchester Branch held its own Remembrance Service at the Submarine Memorial situated in St Mary's Church Graveyard at Shotley in Suffolk - not far from the ex HMS GANGES training establishment. This year was our 21st year of the Colchester Branch holding the Remembrance Service at the Shotley Submarine Memorial. The Memorial was sculpted by the same artist who did the Memorial on The Embankment. Unfortunately this year we were without our Padre, Tim Crosbie, who did all of our previous services, with the exception of the Covid Year (2020) when the church was closed, However, in 2020 four of the Branch members met at the Memorial however to hold our own shortened service and a wreath was laid. Tim Crosbie not only supported us for the Remembrance Services but, taken whilst doing the North of Scotland 500, it was his photograph of the Kylesku Bridge Memorial that directly started the ball rolling, and which resulted in the upgrade and rededication of that Memorial to these brave men. Tim sent me the photograph and commented that the Memorial was looking rather sad. I forwarded it on to our Members with Tim's comments. Our President, Captain Richard Channon RN, then started writing to various people and things started moving.

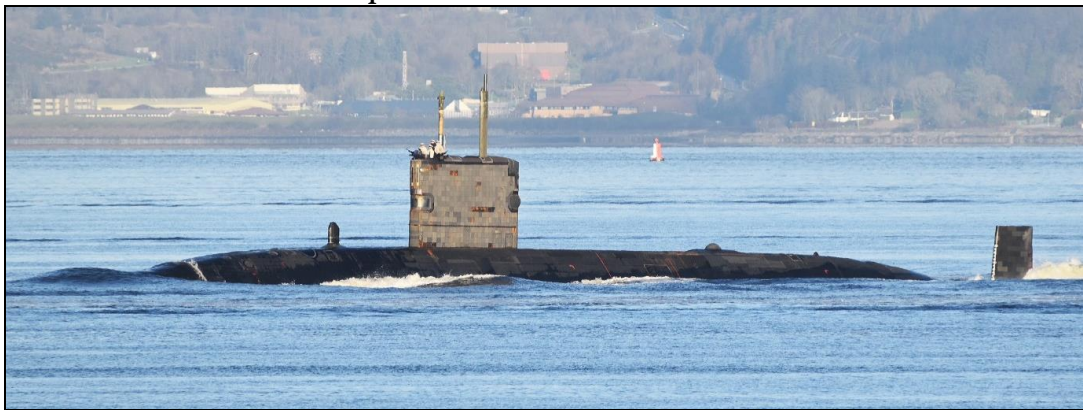
Tim, now being retired, and the current incumbent of St Mary's being unavailable, this years' service was put together by our Chairman, Chris Chambers and our Vice-Chairman Paul Smith. Chris conducted the Service and Paul is also our Standard Bearer. The RNA Standard Bearer was Patrick Warley also a Submariner but, in his case, for the US Navy.

NOTE: In addition to the Shotley Memorial to the Submariner Officers and Ratings of the 8th and 9th Submarine Flotillas the 'Submarine Enclosure' in St Mary's Churchyard contains the graves of those Crew Members of Submarines C16, C25, E4 and E41 killed in accidents and in action during WWI



END OF THE 'T' BOAT ERA

HMS TRIUMPH sailed from Faslane today - 10th December 2024 - for the final time, heading to Devonport where she will Decommission.



Sailing down the Clyde for the last time on 10th December (Photo: Stuart Wolf).

HMS TRIUMPH was laid down at Barrow Shipyard in February 1987 and commissioned less than 5 years later in October 1991, the last of the seven Trafalgar class submarines constructed for the RN. The highly successful T-boat programme delivered 7 boats over an 8-year period. She represents the zenith of UK submarine design and construction efficiency, driven by the need to face down the Soviet submarine fleet. The T-boats, widely acknowledged as the best SSN design of the Cold War, were still proving effective well into the 2020s.

TRIUMPH's construction bridged the period that saw the end of the Soviet Union and the subsequent 'peace dividend', which was exploited to excess by generations of politicians which has resulted in the diminished state of the RN today. Among the most toxic legacies of post-Cold-War mismanagement was the failure to order new submarines when the construction of the Vanguard class concluded in the late 1990s. Without work, the specialist submarine designers and constructors with skills and experience acquired over decades rapidly dispersed. The lack of skilled people was the root cause of the problems and delays that have plagued the Astute class programme and continue to impact SSN availability today.

There is limited information about TRIUMPH's service to the nation in the public domain for obvious reasons but she has been deployed across the globe. In the 1990s this involved tracking the much-reduced Russian submarine fleet in the High North and North Atlantic but as time went on, RN submarines were increasingly sent further afield, particularly to the Middle East. In 1998 the Tomahawk Land Attack missile entered service with the RN and for many years, at least one T or S-class boat was kept deployed East of Suez as the 'duty TLAM boat', ready to respond to events in the region.

TRIUMPH has fired Tomahawk missiles in anger on at least 3 occasions, each time flying the Jolly Roger flag to mark a successful combat patrol on her return home. In 2001 she participated in Operation Veritas, launching strikes against terrorist targets in Afghanistan. In 2011 she conducted two separate patrols as part of Operation Ellamy, firing TLAM against targets in Libya in March and again in June.



An image that looks straight out of the early 1990s – HMS CATTISTOCK says farewell to HMS TRIUMPH in the Firth of Clyde, 29 November 2024

(Photo from 820 NAS Merlin).

HMS TRIUMPH arrived on the Clyde on 29th November following her final duty, conducting Submarine Command Course (SMCC) 'Perisher' training. She unloaded her weapons at Coulport before further de-storing at Faslane



Alongside in Faslane on 6th Dec. (Photo: Stuart Wolf)

Between 2005 & 2010 TRIUMPH underwent a £300 million nuclear refuel and mid-life refit in Devonport which included the fitting of the world-renowned sonar 2076 system. In December 2022 HMS TRIUMPH completed a refit that lasted more than four years (technically a Revalidation and Assisted Maintenance Period – RAMP). Although prolonged by COVID, the unknown £multi-million cost and effort expended to get just two years more service out of the boat looks somewhat desperate. In a familiar story, the RN has little choice but to keep old vessels going due to delays to their replacements (and the exceptionally high value of even just one old SSN).

Once the reactor has become life-expired there is no option but to decommission the boat. Life extension is not realistic as nuclear refuelling a submarine more than 30 years old would not be a sensible use of funds, even if there was the industrial capacity available to support such a massive project

She will be formally decommissioned at a ceremony in early 2025 before spending up to two years with a skeleton crew being prepared for long-term storage afloat. She will then join the fleet of boats in No. 3 Basin at Devonport to await disposal. At the current rate of progress, it will be well into the 2040s before she is recycled.

The RN SSN fleet will become an all-Astute class force which will simplify support and training. Numbers will go back down to an 'on-paper' strength of 5 boats with HMS AGAMEMNON in the engineering test and commissioning phase at Barrow but a long way off becoming an operational submarine. Output has improved in the latter part of 2024 with HMS ASTUTE and ANSON at sea at the time of writing, HMS ARTFUL is likely to regenerate next year. HMS AMBUSH is at very low readiness having been store-robbled to maintain the others, an indictment of the failure to make better through-life support provision for the class. HMS AUDACIOUS was supposed to have entered dry dock in Devonport by now.

The story of HMS TRIUMPH is ultimately about the people who served in her, many of the stories can't be told but you can be sure they made a significant contribution to the security of the nation from 1991-2024.



Streaming the decommissioning pennant and saluted by tugs as she passed through the Rhu Narrows (Photo: Marc Sibbald).

AROUND THE BRANCHES

MEDWAY TOWNS BRANCH HM S/M TRUCULENT MEMORIAL SERVICE 2025

The 75th. Anniversary Service in memory of all who lost their lives when HMS/M TRUCULENT was sunk on 12th. January 1950 will be held in St. George's Centre, Dock Road, Chatham at 1045 hrs on 11th. January 2025. Sixty Four Naval & Dockyard personnel who were onboard for trials lost their lives and the crew of an Avro Lancaster from RAF Kinloss that went to search for survivors crashed on take-off with the loss of the crew of 5. The Service will be followed with a buffet and a tot or two. All are welcome.

Any questions contact Derek Grant Tel. 01634 717384 or Email d.grant384@btinternet.com

any brain cells we had left. Extremely liquid and happy band of brothers and sisters we are!



At the Hope and Anchor

BARROW SUBMARINERS

The Barrow Branch hosted three Social Events for Members, Family and Friends in the lead up to Christmas. On December 19th we had a small buffet and rum at the Hope & Anchor in Ulverston, where 24 of us piled into the pub and drank like it was 2024. Followed closely after by the Christmas Party at the Royal British Legion in Holker Street. Not a bad turnout, but once again half of those who attended were Legion colleagues and not just the Submariners and thanks to the Legion people for supporting us. But yet again fun was had by all attending; drinking, eating, dancing and laughing, thanks to all who supported that event. Finally, we had a DTS at Seaweed Corner on Walney Island – around the corner from the Ferry Hotel. The boatyard peeps really looked after us and I think in the space of five hours we had managed to destroy



At Seaweed Corner



At the Royal British Legion

GOSPORT BRANCH

The Gosport Branch held their Xmas Social on Wednesday 4th December.



Gosport Branch Submariners Association members, and their guests, got together for their annual Xmas Social. The special guest for the evening was the legendary Shep Woolley.

After a warm introduction by our Chairman, Steve Thorpe, we were treated to the first set by Shep and his wingman Tim on his fiddle. Some great sea shanties, audience participation, jokes and friendly banter from this seasoned veteran. He was well able to hold his own against a submarine audience as the obligatory 'skimmer' banter was 'batted' back from the stage!

At half time we enjoyed an excellent buffet and Willy Wilmshurst did his final raffle. His wife was presented with some flowers by the Chairman in thanks for her support in arranging gifts for the raffle this year. After the usual collection for the Widows fund and a few 'parish notices' and it was back to the entertainment from Shep and Tim. Another lively set from the two youngsters and a good time was had by all.

The Chairman closed by thanking Shep for this evening and for volunteering to entertain at the Widows lunch for free. He wished everyone a Very Happy Christmas and best wishes for the New Year.

Nige Denham

OTHER SUBMARINE NEWS

AUSTRALIA

Australian Government Lists Collins Submarine As Product Of Concern

By Alex Luck, Australian Government Press Release 13th December 2024



HMAS FARNCOMB at Osborne Naval Yard (Image ASC)

This announcement suggests further challenges for comprehensive life-extension effort underway to keep submarines operational into 2030s. Following a recommendation from Defence, COLLINS class submarine sustainment has been listed as a Product of Concern to enable enhanced ministerial oversight of this critical capability.

The COLLINS class sustainment program has experienced challenges in recent years. With the submarines required to operate beyond their original design life, it is essential that increased sustainment requirements are met to ensure the COLLINS class remains an effective and formidable capability until it is withdrawn from service. Defence will now develop a remediation plan as a priority, to allow a Product of Concern Summit to be held in

early 2025. The Albanese Government is committed to investing in priority capability enhancements and fleet sustainment for the COLLINS class to ensure it remains a potent and credible capability to conduct operations to safeguard Australia's maritime approaches and sea lines of communication. This includes a \$4 to \$5 billion commitment over the next decade to extend the life of the COLLINS class and ensure there is no capability gap until Australia transitions to its future conventionally armed, nuclear-powered submarines.

Under the former Coalition Government, an efficiency dividend of approximately \$120 million was applied as part of the COLLINS class In-Service Support Contract signed in 2020. This cut directly affected the level of sustainment support provided to the COLLINS class submarines. In June this year, Defence, under the Albanese Government, signed a new four-year sustainment contract with ASC valued at \$2.2 billion, without a detrimental efficiency dividend.

Since coming to office, the Albanese Government has strengthened and revitalised Defence's Projects and Products of Concern framework. It is an important tool in the proper stewardship and governance of Australia's vital Defence capabilities. The Product of Concern process has demonstrated its value in addressing challenging projects through enhanced Ministerial oversight. Product of Concern Summits ensure Defence and industry come together in the national interest to remediate Defence capabilities. COLLINS class submarine sustainment has previously been a Product of Concern spanning successive governments, from November 2008 until October 2017.

Naval News Comments:

COLLINS -class returned to the headlines primarily over a significant effort by Australian government to life-extend all six boats of the class for service into the 2030s, dubbed "LOTE" or "Life of Type Extension". Australian Defence earlier has de-scoped the effort from a more comprehensive modernisation supporting the Attack-class program under SEA 1000 - cancelled in 2021. Nevertheless the Australian Navy finds itself in a difficult situation attempting to keep six ageing submarines in service until the late 2030s. That date marks receipt of the third of three Virginia-class nuclear powered submarines from the US Navy, as part of the AUKUS Pillar 1-agreement.

Life-extending naval combatants always entails significant challenges over a finite lifespan for many systems installed. According to Australian media reporting earlier this year ASC officials in a Senate Estimates meeting revealed "unprecedented levels of corrosion" on at least two COLLINS Class boats, HMAS SHEEAN and HMAS FARNCOMB

The development implies any modernisation will entail more comprehensive measures to keep the boats in service. Should the boats have experienced a higher than expected level of wear and fatigue, the Australian Navy may have to impose operational restrictions, such as diving limitations on the COLLINS -class. The extent and implications remain speculative for now, but listing the boats as Program of Concern may indicate COLLINS LOTE is heading for some choppy waters over the next few years.

MORE AUKUS NEWS -THE TASKING AGREEMENT

The Australian and UK governments have announced a significant milestone between the Australian Submarine Agency (ASA) and industry partners that will support the delivery of the SSN AUKUS fleet of conventionally armed, nuclear-powered submarines for the Royal Australian Navy.

The ASA, BAE Systems and ASC Pty Ltd have signed a Tasking Statement, a contractual agreement that supports the joint development of build strategy, supply chain management plans and a workforce development strategy.

Stuart Whiley, Chief Executive Officer and Managing Director of ASC, said: "The Tasking Statement is an important step in establishing a sovereign nuclear submarine build capability in Australia. The program is anticipated to generate thousands of highly skilled jobs over its lifetime. SSN AUKUS is a multi-national, multi-generational program through which ASC will invest in developing the critical skills required to build a nuclear submarine fleet in Australia. It's hard to imagine, but the children at school today will be the ones building our submarine fleet of tomorrow."

Steve Timms, Managing Director, BAE Systems' Submarines business, said: "SSN AUKUS is our contribution to the critical tri-national security partnership between Australia, the UK and the US. The safe build, test and commissioning of nuclear submarines is a hugely complex engineering endeavour and through these agreements, we're able to share our vast experience of nuclear submarine capabilities with our industry partners to support the build of submarines in Australia. We have a long history of delivering sovereign capability and security in Australia and the UK and the Tasking Statement underpins further support to essential delivery capabilities in Adelaide, with support from Barrow."

Craig Lockhart, Chief Executive Officer, BAE Systems Australia, said: "Focused on stealth and endurance, the SSN AUKUS submarine will integrate cutting edge technologies and advanced materials to enable it to operate the

full spectrum of underwater missions, from advanced intelligence and surveillance through to underwater warfare. “It is a complex build challenge that industry partners are coming together to deliver. Work is underway on defining the delivery schedule, the enablement environment for future information transfer between the UK, US, and Australia, as well as design of the new yard at Osborne to accommodate the build.”

Over the past eight months, government and industry partners have made progress across a number of areas for delivery of the SSN AUKUS. In November, the ASA, BAE Systems and ASC signed an AUKUS Mobilisation Deed, which provides a framework to contract with the Australian Government through the ASA. That followed the Heads of Agreement and the tri-lateral announcement of the Commonwealth of Australia’s shipbuilders in March.

Integrated Project Teams are now working to oversee tasks such as nuclear stewardship, infrastructure functional requirements, business enablement and build preparation. Underpinning business functions, such nuclear safety and assurance, engineering and build operations have also been established.

RAN Submariner Earns USN DOLPHINS

Asia Pacific Defence Reporter (Sunday 22nd December 2024)



The U.S. Navy qualified the first Royal Australian Navy officer on a nuclear-powered Virginia-class submarine at Commander, Fleet Activities Yokosuka, Dec. 12. In a pier-side ceremony, Rear Adm. Chris Cavanaugh, commander, Submarine Group 7 awarded Royal Australian Navy Lt. Cmdr. James* the first U.S. Navy Submarine Warfare Device earned by a Royal Australian Navy submariner.

James earned the warfare device, or “dolphins”, while embarked aboard the Virginia-class fast-attack submarine USS Vermont (SSN 792) during a deployment to the U.S. 7th Fleet area of operations, demonstrating another significant milestone for the Australia, United Kingdom, United States (AUKUS) trilateral security partnership.

“It is always an honour to pin dolphins on a Sailor’s uniform and welcome them into an elite community of undersea war fighters,” said Cavanaugh. “Today’s pinning represents the strength of the alliance and our continued progress under the AUKUS agreement. This was an historic pinning, but it is only the first of many to come.”

In order to qualify, a Sailor must exhibit a strong understanding of all submarines systems, compartments, and equipment. James had already qualified on a diesel electric Collins-class submarine but was the first Royal Australian Navy submariner to qualify on a nuclear-powered Virginia-class submarine.

“All of the extra sensors that the boat has, and the fact that we can remain deployed for so long at such high speeds will be game changing for Australia,” said James. “[Qualifying] is a culmination of a lot of hard work and a lot of support from the crew. I’m incredibly thankful to everybody that has supported me through this adventure. And it makes me incredibly proud to serve both my navy and your navy.”

There are currently more than 100 Royal Australian Navy officers in the U.S. Navy submarine training pipeline or assigned to U.S. Virginia-class SSNs. Military training efforts under the AUKUS Pillar 1 effort are designed to enable Australia to operate, maintain, and support a sovereign fleet of conventionally armed, nuclear-powered submarines to deter aggression and enhance stability in the Indo-Pacific region.

Vermont, part of Submarine Squadron 1, has been on deployment since it departed its homeport of Joint Base Pearl Harbor-Hickam, Hawaii, Aug. 8, and arrived in Yokosuka, Japan, Dec. 9, for a port visit. Submarine Group 7 directs forward deployed, combat capable forces across the full spectrum of undersea warfare throughout the

Western Pacific, Indian Ocean, and Arabian Sea. U.S. 7th Fleet is the U.S. Navy's largest forward-deployed numbered fleet, and routinely interacts and operates with allies and partners in preserving a free and open Indo-Pacific region.

*Per Royal Australian Navy protocols, submariners' last names are not publicly released.

WE REMEMBER SUBMARINERS - CROSSED THE BAR COORDINATORS

“Are you able to listen with compassion to a bereaved person?

Can you offer a willing ear?

If so, would you like to become a 'Crossed the Bar' (CTB) Co-ordinator for We Remember Submariners (WRS)? As a CTB Co-ordinator you will liaise with the bereaved relatives, close friends and funeral directors of submariners who have 'Crossed the Bar'. You will ensure the submariner is remembered according to the wishes of the family.

These are challenging but very rewarding roles within this active charity”.

This is a voluntary post within the charity, and we would require the successful applicants to complete a full DBS disclosure. We will provide suitable training in safeguarding and working with vulnerable people”.

If you are interested and would like further details, please contact graham.bishop@weremembersubmariners.com or nigel.mellor@weremembersubmariners.com

Nigel Mellor, Operations Manager

We Remember Submariners

Charity Number 1176446

www.we-remember-submariners.com

07427 159476

The Halifax Nova Scotia Explosion – 6th December 1917

On 6th December 1917 what is believed to have been the largest ever man-made explosion before the nuclear age took place in Halifax Harbour, Nova Scotia following the collision of two ships in the harbour. The two ships were the IMO, which was leaving harbour, and the MONT BLANC which was under way in the Harbour and changing berths collided at about 0845. The MONT BLANC was carrying 2,300-tons of 'wet' and 'dry' picric acid, 225 tons of TNT, 61 tons of 'Gun Cotton' in the holds and 35 tons of 'Benzol' in barrels as a 'deck' cargo. In the collision some of the barrels were split and benzol was released on the deck. As the IMO pulled herself clear of the MONT BLANC sparks ignited the spilt fuel. The MONT BLANC crew 'abandoned ship'. Rescue and fire-fighting crew in boats from HMS HIGHFLIER and HMCS NIOBE & two Tugs hurried to provide assistance. At 0906 the MONT BLANC blew up almost alongside the dockyard and ceased to exist apart from pieces of her hull and superstructure which showered down on the towns of Halifax & Dartmouth. Part of the shank of one of her anchors was found more than two miles away & that and one of her guns were the largest pieces found – there was only one severely injured survivor from the two naval boats crews – the others were never found. The area ashore was devastated – buildings up to 75 miles away were shaken and the explosion was heard on Prince Edward Island – 100 miles away. It was estimated that some 2,000 residents of Halifax & Dartmouth were killed (minimum) and some 9,000 injured out of an estimated population of 50,000. 6,000 others lost their homes and 25,000 were left without proper shelter. 1,630 buildings were destroyed and 12,000 were damaged

The Rescue Boat from HMS HIGHFLIER was commanded by Lieutenant Commander Tom K Triggs (a Submariner) and the First Lieutenant of HIGHFLIER. Tom Triggs was born on 10 February 1884, the son of Captain Tom Bowden Triggs & Mrs Annie Louisa Triggs (née Thomas). He joined the Royal Navy in 1898, was promoted to Sub Lieutenant and, in 1904, was appointed to the Submarine Depot Ship HMS THAMES 'Additional for Training'. He was promoted Lieutenant having achieved four 'Firsts' in his Lieutenant's Examinations and, in 1905, he was appointed to HMS THAMES 'for Submarines' and subsequently 'for Command of Submarines'. Tom Triggs returned to the Surface Fleet for his 'Big Ship' time in 1907 with an appointment to the Cruiser HMS ARGYLL. He was next appointed to HMS THAMES 'for Submarine C3 in Command' and then, in 1913, he was appointed to the Submarine Depot Ship HMS ONYX at Devonport 'in Command and for Command of the First Submarine Flotilla'. He was promoted Lieutenant Commander in 1912. In 1916 he was appointed to HMS THAMES 'in Command'. Tom Triggs had been promoted Commander and was serving in the cruiser HMS HIGHFLYER when he was killed as the result of the explosion of the French ammunition ship SS MONT BLANC which destroyed much of the city. HMS HIGHFLYER had launched her whaleboat before the explosion to investigate a fire onboard MONT BLANC; the ship exploded before they reached her, killing nine of

the ten men in the boat. Triggs was killed in the explosion having volunteered to take the boat to try to reduce the casualties likely to result from the burning munitions ship and was entirely aware of the grave jeopardy this entailed. He was awarded (Posthumously) the Albert Medal in Gold ‘for gallantry in saving life at sea’ – see London Gazette dated 23rd March 1918. Thirty three year old Tom Triggs was the husband of Ann Triggs (née Jameson). He is commemorated on the Plymouth Naval War Memorial on Panel No. 20

Identity of WW2 submarine found in the Mediterranean confirmed as HMS TROOPER

2nd December 2024 (From the Royal Navy website)

Until now the location of the T-class boat HMS TROOPER had been a mystery since she disappeared 81 years ago after delivering supplies and three secret agents to Athens in Nazi-occupied Greece. Greek diver and researcher Kostas Thoktaridis and his team found TROOPER after many attempts and countless hours of meticulous research, eventually discovering the wreck lying at a depth of more than 800ft between the islands of Ikaria and Donousa in the Icarian Sea, part of the Aegean Sea in the approaches to Athens. The loss of TROOPER and her 64 crew in October 1943 was not in vain. Their dangerous mission to deliver the three agents – the last people to get out of the submarine alive – proved fruitful, with valuable military information gathered and money and a radio delivered to the Greek underground. The Royal Navy’s Wreck Advisory Group analysed video footage to confirm the wreck, which was found in early October.



Royal Navy experts have confirmed the wreck of a World War 2 submarine found in the Mediterranean as HMS TROOPER

Mr Thoktaridis said: “It’s broken into three distinct sections: the bow, midsection and stern. The condition of the wreck indicates a violent sinking due to a mine detonation.” The dive teams reported that it is likely the submarine was sunk by a German EMF-type mine, instantly breaking the boat into three pieces. The bow and stern lie on the seabed in close proximity, while the submarine’s conning tower has broken off and is located much further away. The video footage captured by the dive team paints an eerie picture of the wreck, showing torpedo tube number seven open and the torpedo missing. The other tubes are closed.

The team’s report the break in one of three distinct segments was made where the crew accommodation was located, while the lower starboard side there is a four-metre crack and a large dent caused by the explosion of the mine.

The open hatch on the tower, lowered periscope and the position of the rudders led the team to conclude that TROOPER was surfaced at the time of the explosion. The main impact seems to have mainly hit the accommodation area, while the stern section has suffered least damage, according to reports.

TROOPER’s eighth wartime patrol in 1943 came a matter of weeks after Italy switched sides to join the Allies, with the Nazis planning to seize islands in the Dodecanese which had previously been under Italian control and from which the Allies planned to strike at German targets in the Balkans. The British submarine – commissioned one year earlier in 1942 – carried out her secret mission to Athens before acting on information about a new German landing operation on the island Leros but was expected in Beirut by October 17. When she did not turn up she was considered lost.

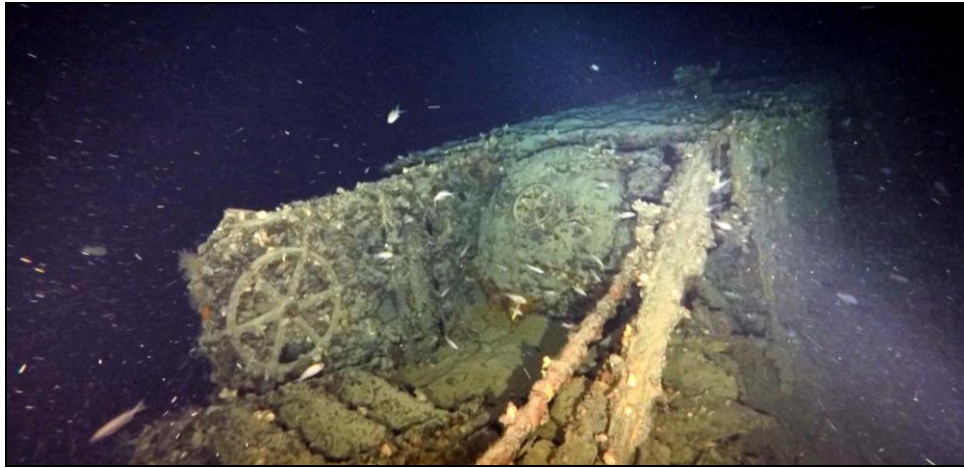


Image of the wreck of HMS TROOPER

(courtesy of diver and researcher Kostas Thoctaridis)

The report sent to the Admiralty stated: “Regret to report TROOPER overdue since October 17th has failed to answer signals and must be considered lost. “TROOPER was patrolling west of the Dodecanese and for latter part of the patrol east of Leros to intercept expected seaborne attack on island. “In the absence of any other evidence consider probable cause mines.”

The Best Christmas Gift of all: Nuclear Deterrence

It's not usually so bad spending the festive season away. But there's one crew who are never in harbour
By Tom Sharpe - The Telegraph. 19th December 2024



Vanguard class nuclear deterrent submarine HMS VENGEANCE at sea.

Credit: Andrew Linnett/Crown Copyright

There has been a Royal Navy deterrent submarine at sea ready to strike every minute of every day since 1969 Christmas away from home in the Royal Navy is part of the job and if you spend enough time at sea, it's something you end up doing many times. It invokes a mix of feelings. On the one hand, you are away from your family and loved ones. On the other, you're with your other, slightly strange, sailor family. You become adept at making the most of it. Traditions have emerged over time. Secret Santa is well known in the civilian world but the Royal Navy version has a special edge to it. I can only think of a couple of examples that are publishable. A Mine warfare rating who'd lost his thumb in an accident at sea receiving a pair of gloves with a thumb snipped off is one. The second in command receiving a baseball cap marked 'Captain' was a slightly more nuanced other. Thinking back, most would see you fired the next day if you tried them in a civilian organisation.

Another tradition is that the officers prepare and serve Christmas lunch for the ship's company. The general idea is to give the chefs a break from their brutal early-to-late duty cycle. The reality is that none of the officers really know how to use the galley without injuring themselves – it's one of the most dangerous places in the ship – or how to mass-cater without poisoning everyone, and the chefs still have to do breakfast and supper and that overlaps, and the officers make a mess and break things. The chefs generally minimise these problems by doing a lot of pre-prep, so the food in reality is partly officer-prepared at best. It's hard to say if it even really helps at all, but the thought is there.

Much depends on where you are in the world. The Christmas I spent alongside in Rio de Janeiro was somewhat different to the one I spent in Belfast. I only had one actually at sea – most of the time, in most of the Navy, you can persuade your operational commander to let you into harbour for a day or so.

This year the Gulf based ships, one frigate and two minehunters, will be away from home, but they are nicely accommodated there in Bahrain and will find making the best of it comparatively easy. HMS PROTECTOR, our sole and hard-worked icebreaker, has just sailed through Patagonia – an unforgiving environment. I spent Christmas down there alongside in Punta Arenas as captain of her predecessor and we did well enough. The Chileans were superbly welcoming and we found a log cabin for our lunch that provided some refuge from the incessant gales. Like embassy staff, headquarters teams overseas, emergency services or thousands of others who find themselves at work on Christmas Day, we could at least phone home.

As ever, there is one team who can't even do that and who are never in harbour for Christmas: the men and women of the on-patrol ballistic missile submarine – the UK nuclear deterrent. The importance of keeping these patrols unbroken and undetected means that our "bomber" crews have drawn the Christmas short straw every year since they started in 1969. Creeping around very slowly and silently under the ocean it is possible to communicate with the UK but it's unbelievably low bandwidth – only limited amounts of text can be sent over quite a long time window – and almost entirely one way, shore-to-ship. Even that is minimised as it creates detection opportunities, the one thing that the deterrent submarine must avoid at all costs. Band Aid's "Do they know it's Christmas?" should probably have been written for deterrent submariners instead.

Most people understand the importance of the nuclear deterrent but it does attract a lot of confidently stated criticism, mostly poorly informed or just plain wrong. First, so far from never having been used, the deterrent is in use every day. Then, saying "but it hasn't prevented war in Ukraine", for example, is to simplify how deterrence works to the point of misunderstanding it. Next, "we can't fire without US approval" is just a myth. It is true to say we can't maintain the weapon supply chain ourselves, but that is why we have allies. It's also true that without the American GPS satellites our Tridents would be much less accurate but that only matters if you're trying to take out a hardened enemy missile silo in a "counter force" strike. Us Brits have never had enough warheads for that sort of thing: if we ever launch we'll be looking simply to turn Moscow and St Petersburg into lakes of molten glass, and basic inertial/astro guidance is fine for that. Yes, the last two UK test firings failed but both failures were caused by components that had been fitted specially for the test, not the operational weapons. Nothing to see here.

Finally the cost, whilst eye-watering to you and me is tiny when compared to UK government spending. The defence nuclear programme over the next 30 years will cost circa 200 billion pounds. That's not just the deterrent, that's the whole enterprise including propulsion, support, infrastructure etc. That's around 3.7 per cent of current NHS spending if it ran over the same period and didn't increase (which it actually will, almost for sure). The nuclear deterrent is barely noticeable as a UK government expense.

Whether or not we still need a nuclear deterrent is challenged periodically and this is a country which welcomes debate. Nonetheless the UK electorate have made their views quite clear and those favouring disarmament have lost the argument for the foreseeable future. Likewise, the delivery method (and the cost of that) is occasionally challenged, often by the Royal Air Force who would like to have some great big nuclear bombers or something. But these debates rarely endure. Submarines are the only real way to provide a deterrent which can't be knocked out by a first strike – a real deterrent, rather than an invitation to build and use a first strike force.

The VANGUARD class currently delivering it are getting old now, though. Among the savaging suffered across Defence in 2010, the decision to delay the build of the DREADNOUGHT class replacements was perhaps the best example of creating huge costs and problems today to save a few pounds yesterday. (There was stiff competition.) Add this to maintenance delays to the VANGUARDS caused by failing support infrastructure and patrols have been getting longer and longer. For decades, three months was considered the benchmark patrol length to optimise efficiency and avoid causing longer-term issues to both the boat and the crew. A couple of recent patrols have seen that doubled.

Our submariners have to maintain total focus in one of the harshest operating environments there is. They must sustain that focus in conditions close to the acceptable limit of what humans should ever be asked to endure in terms of isolation, close quarters living and lack of variety. They have never once let us down in more than five decades. We should raise a glass to their dedication year-round, but perhaps especially at Christmas!

Tom Sharpe is a former Royal Navy Officer

A New Russian Submarine



The Northern Fleet of the Russian Navy has commissioned a new Yasen-M class nuclear-powered attack submarine.

On the morning of December 27th the Russian Navy celebrated the reception of a new nuclear-powered attack submarine of the Yasen-M class. The unit, named K-564 ARKHANGELSK, built by the Sevmash shipyard, is the fourth belonging to the Project 885M class and the second to be soon incorporated into the Northern Fleet.

The Yasen/Yasen-M class is recognized as the most modern nuclear-powered submarine in service with the Russian Navy. Designed by the Malakhit Marine Engineering Bureau and built by the Sevmash shipyard, they have been established as replacements for the aging Oscar and Akula-class cruise missile and attack submarines of the Soviet era. The start of their construction was hampered by the challenges Russia faced in the early 1990s following the dissolution of the Soviet Union. This led to the development of an improved variant, coinciding with the completion of the first unit, SEVERODVINSK (Project 885), which is now known as Project 885M or Yasen-M. This variant constitutes the majority of current and future submarines to be incorporated.

Currently, excluding the SEVERODVINSK and with today's reception of the K-564, the Russian Navy operates a total of four new Yasen-M submarines, deployed within the Pacific Fleet (K-573 NOVOSIBIRSK and K-571 KRASNOYARSK) and the Northern Fleet (K-561 KAZAN and the recently delivered ARKHANGELSK).

During the ceremony, the commander of the K-564, Captain Alexander Gladkov, received the St. Andrew's flag from the hands of Navy Commander Admiral Alexander Moiseyev.

Additionally, the high command of the Russian Federation's Armed Forces referred to progress in the construction of the next submarines of the class, stating that "The construction of a series of submarines of this project will continue," alluding to the future PERM, ULYANOVSK, VORONEZH, and VLADIVOSTOCK, which are currently under construction at the Sevmash shipyard.

The statement by the head of the Russian Navy aligns with Russia's strategic modernization plans, which emphasize dominance in the underwater domain through the construction of new nuclear- and conventionally powered submarines for both ballistic missile and attack roles.

As part of these plans, it was confirmed in late 2023 that three additional Project 885M submarines will be built, bringing the fleet to a total of 12 units operating within the Northern and Pacific Fleets. Other projects related to the class have also been highlighted, such as their capability to launch Zircon hypersonic missiles, further enhancing their strike capabilities, currently provided by the combination of Kalibr and Oniks anti-ship missiles, as well as 533 mm torpedoes.

Oleg Kuleshov

Finally, regarding the K-564 ARKHANGELSK, it is expected that the nuclear-powered submarine will undergo additional navigation and diving trials in the coming weeks and months to evaluate the proper functioning of its systems. It is likely that its incorporation into active service will occur during 2025, on a date to be confirmed by the Russian Navy.

US Navy takes delivery of USS IOWA, the newest Virginia-class submarine

December 24, 2024, by Fatima Bahtić

The US Navy Submarine Force's newest attack submarine USS IOWA (SSN 797) was delivered to the Navy on December 22, 2024.

USS IOWA is the 24th Virginia-class submarine (VCS) co-produced by General Dynamics Electric Boat (GDEB) and HII-Newport News Shipbuilding through a long-standing teaming agreement and the 13th attack submarine delivered by GDEB. USS IOWA is also the sixth of 10 VCS Block IV-configured attack submarines. The boat's delivery represents the official transfer of the submarine from the shipbuilder to the Navy. The submarine and crew will now undertake a series of tests and trials before commissioning into active service and providing additional capability to the fleet.

SSN 797 is the fifth US naval vessel, and the first submarine named after the Hawkeye State. Previous ships named USS IOWA have included the highly decorated USS IOWA (BB 61), commissioned in 1943, which served

in World War II and the Korean and Vietnam Wars. SSN 797 was christened at the GDEB shipyard in Groton, Connecticut, on June 17, 2023.



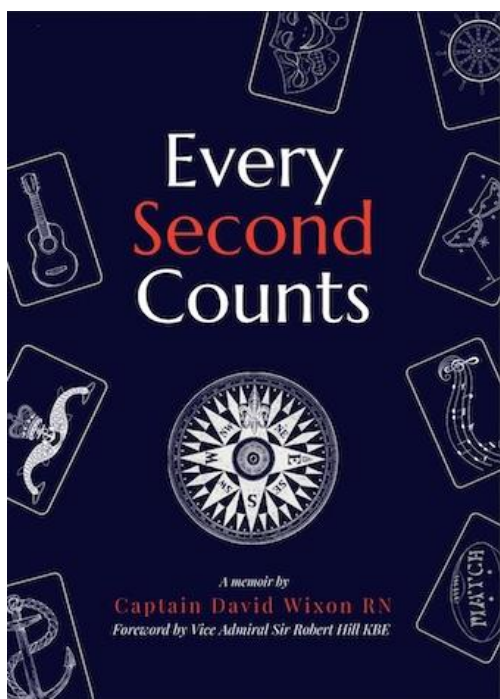
Credit: US Navy

Vessels: The Virginia-class submarines are designed to operate effectively in both littoral and deep-water environments, performing a wide range of missions including anti-submarine warfare, anti-surface ship warfare, strike operations, special operations forces (SOF) support, intelligence, surveillance, reconnaissance (ISR), irregular warfare, and mine warfare. These submarines are equipped with Tomahawk cruise missiles, capable of precisely striking shore-based targets, and are also well-suited for long-duration, covert surveillance of enemy sea forces, coastal areas, or land targets, according to the navy. The Virginia-class design also supports Special Forces deployment, mine delivery, and mapping and excels in both anti-submarine and anti-ship warfare operations. The submarine's commissioning ceremony is slated for April 5, 2025, in Groton.

A NEW BOOK

Every Second Counts

By Captain David Wixon



Foreword by Vice Admiral Sir Robert Hill KBE
FREng Hon FIMarEST

(Former Chief Naval Engineer Officer_

As a nuclear submarine engineer, David is exceptional for his wide variety of skills and interests. Two that have persisted throughout his adult life are his compulsion to entertain and his love of cars. Having joined the Navy at 18 he was one of a small group of guinea pigs undertaking a new Officer training scheme comprising two years at the Britannia Royal Naval College, Dartmouth followed by sea-time and then several years at the Royal Naval Engineering College, MANADON. He played rugby football for the Royal Navy and Devon. Revealing his versatility, he was co-writer of a musical version of "Treasure Island" and played the part of Long John Silver.

On graduating from MANADON, his choice of submarine marine engineering coincided with Prime Minister MacMillan's 1963 meeting with President Kennedy in Nassau which led to the UK acquiring the Polaris weapon system. After sea time as the engineer of the unreliable conventional submarine HMS AUROCHS David was appointed to a newly designed course at the Royal Naval College, Greenwich – guinea pig again – called the Advanced Marine Engineering Nuclear (AMEN) course. The last word. During this time and after a series of

failures of sea water systems and after hydroplanes failures, David showed courage in deciding and telling his experienced Commanding Officer that the submarine was not fit to dive. After AUROCHS' surface passage return to Gosport, a detailed inspection was carried out. As a result of this, Flag Officer Submarines declared the submarine should be scrapped. Questions were asked in the House of Commons!

David joined another unreliable submarine, the UK's first "all British" nuclear submarine HMS VALIANT. Commanding Officers, always desperate to get to sea, frequently had to be told they must wait until defects had been rectified.

David's last submarine appointment was to HMS COURAGEOUS, while she was still under construction by Vickers in Barrow in Furness. By this time, design changes and Vickers's experience combined to greatly improve reliability. During build, David wrote, produced a road show. This was performed to trainees at six RN training establishments with the aim of overcoming the poor reputation surrounding nuclear submarines. Similarly, David produced another notable histrionic diversion during his time on the staff of the Nuclear Department of the Royal Naval College, Greenwich under Professor Jack Edwards who always spoke highly of him. The show was "Joseph and his Technicolour Dreamcoat".

David's self-expression is revealed not only theatrically but also in art. Some of his paintings then were inspired by Andy Warhol, while the most remarkable are at the other end of the scale being immaculate, detailed tinted line drawings of two naval colleges, MANADON and GREENWICH. He started to learn to play the double-bass, arguing that it would be easier to play just 2 notes in a bar. For a short time, he played with the Rob Walker jazz band but invariably partygoers seeing David in the band would wander up to chat to him, distracting him from playing.

No account of David's life would be complete without featuring his beloved wife Rosamond "Poppet" Stevens who had recently qualified as a Cordon Bleu chef when they met. She lived with her parents in Stroll on Dartmoor where they kept such late hours that, along with working for exams and training for rugby, David's stamina was stretched to the limit. They were married while David was still at MANADON and too young to get marriage allowance.

His last appointment was as Captain of HMS DRAKE in Devonport, where he took great pleasure as President of the Devonport the Field Gun crew. Prior to this, he was selected to be the naval attaché in Tokyo but ill health prevented his

taking up the appointment. One can only imagine the Japanese puzzlement that would have been caused by his quirky sense of humour.

David and Poppet have always been very close to their children Miranda, Theresa and Rufus, being rightly proud of their achievements and supportive when circumstances have required.

Many people's lives have been made more enjoyable through knowing this delightful, cheerful, positive, extrovert, versatile, gregarious person.

Robert Hill

Mutual Best Man

By Editor

As will be seen from the above words by Vice Admiral Hill David Wixon served in HMS VALIANT during the 'First Commission'. As this was back in the 'dark and distant 1960s' some of you may feel that this is ancient history. However, to some of us (and there are still four of us ex-VALIANT 'First Commission' crew in the Barrow Branch), this seems like only yesterday. The Submarine Service was still getting used to nuclear submarines and the Command was only too keen to make full use of their new capabilities (high speed, rapid depth and course changing, increased diving depth, endurance etc) and part (if not most) of the 'unreliability' the Admiral refers to probably came as the result of the many and varied trials and tests carried out during the First Commission. Some of the trials (and some normal operations) were conducted at high speed using large plane angles, tight turns and rapid changes of depth, relying on active sonar to keep you out of trouble. These trials explored the extent/limits of Fleet Submarine (SSN) operations and led to the establishment of the Manoeuvring Envelope/Diagram limits within which it was safe to operate and also to the development of Operating and Emergency Procedures (SOPs & EOPs). Some of the tests and trials the experts wanted were quite frightening. I think when the experts suggested fifteen knots, fifteen down and fifteen degrees of angle before pulling out they were soon told the trials were over. These days most of these things can be modelled using computer programming

Still it was all pretty exciting stuff at the time but I don't think any of us would be too quick to do it all again!

Australia's New Submarines Will Be 'World's Most Advanced Fighting Machines'

By Brendan Nicholson

Australia's new SSN-AUKUS class submarines, developed in partnership with the U.S. and U.K., are

set to be larger than current Virginia-class boats and will integrate cutting-edge American technology into an evolution of Britain's Astute design. Vice Admiral Jonathan Mead, head of Australia's Submarine Agency, says the project remains on schedule and will yield a highly versatile deterrent capable of intelligence gathering, surveillance, strike missions, and more. Australian personnel are undergoing extensive nuclear and submarine crew training in both the U.S. and U.K. The plan includes building five SSN-AUKUS subs in Adelaide and procuring three U.S. Virginia-class boats to bolster Australia's undersea defence.



Astute-Class Submarine. Image Credit: Royal Navy.

Key Points and Summary:

SSN-AUKUS Submarine: Bigger, Better, Faster—and a Game-Changer for the Indo-Pacific

The nuclear-powered, conventionally armed submarines to be built under the AUKUS agreement are on track to be the world's most advanced fighting machines, says Australian Submarine Agency Director-General Jonathan Mead, back in an interview in May of this year. 'They'll have greater firepower, a more powerful reactor, more capability and they'll be able to do more bespoke operations, including intelligence gathering, surveillance, strike warfare, special forces missions and dispatching uncrewed vessels, than our current in-service submarines,' Vice Admiral Mead said in the interview. With a displacement of more than 10,000 tonnes, the SSN-AUKUS class will be larger than current US Virginia-class attack submarines of just over 7000 tonnes. Australia's six conventionally powered Collins-class submarines are each about 3300 tonnes.

The SSN-AUKUS submarines to be built for Australia and Britain, with help from the United States, will be a 'bigger, better, faster and bolder' evolution of Britain's Astute-class submarines, Mead says. The design will have the advantage of more US technology and greater commonality with US boats. Australian steel will be used to build Australia's SSN-AUKUS submarines, subject to a comprehensive qualification process expected to be completed in the first half of 2025.

The steel is also being qualified to both the British and US standards. Having Australian industry

involved will deepen and bring resilience to the three nations' supply chains, with greater mass, confidence and scale, Mead says.

In April, major US warship builder Newport News Shipbuilding lodged an initial purchase order for processed Australian steel from Bisalloy Steel's Port Kembla plant for testing and training. The government has committed to having eight nuclear submarines, Mead says, 'and we're on track'. 'We're planning on three Virginias and five SSN-AUKUS. That takes the program through to 2054.'

The SSN-AUKUS Submarines built by Australia and Britain will be identical, incorporating technology from all three nations, including cutting-edge US technologies.

Those for the Royal Australian Navy will all be built at Osborne in South Australia. 'Osborne will be the fourth nuclear-powered submarine shipyard among the three countries and one of the world's most advanced technology hubs,' Mead says. The SSNs will all have an advanced version of the AN/BYG-1 combat system, used in the Collins class and in US submarines, and the Mark 48 heavyweight torpedo, an advanced version of which has been developed by the United States and Australia.

Mead says each Virginia has a crew of about 133 and the likely size of the SSN-AUKUS crew is being calculated as design work progresses. The massive scale of the program and the nuclear element has understandably attracted strong attention, including criticism and questions about how skilled workforces will be found to build and crew the boats. Commentary has included suggestions that AUKUS is 'dead in the water'. Mead has no doubt that the project can be completed as planned. 'Every day we ask ourselves the same question: "Are we on track?"' The answer is "yes."

For the program to succeed, it must be a national endeavour involving the Commonwealth, states and territories, industry, academia and the Australian people, Mead says. 'To develop that social licence, we must provide confidence that we are going to deliver this capability safely and securely and not harm the environment.' To build a nuclear mindset there must be an unwavering commitment to upholding the highest standards of safety, security, stewardship and safeguards, with all decisions underpinned by strong technical evidence. 'It's essential that everything we do is underpinned by strong technical and engineering evidence,' he says. The reactor will be delivered as a sealed and welded unit that won't be opened for the life of the submarine.



Image of Astute-class Submarine. Image Credit: Creative Commons.

Mead acknowledges that recruiting is the big challenge.

He says comprehensive training of crews has begun, with Australian officers and enlisted sailors already passing nuclear training courses. 'Australian officers have also topped courses in both the US and UK, showing that our people are up for the task that lies ahead.' It's intended that about 100 Australian officers and sailors will be in US training programs this year and they'll go on to serve on US submarines as part of their crews. Other Australians will train in Britain and serve in Royal Navy boats.

Mead's agency now has 597 staff, including engineers, project managers, lawyers, international relations specialists and policy makers. That is likely to rise to about 1000. Given that Australia is the first non-nuclear nation acquiring nuclear-powered warships, the agency is working flat out to ensure rigorous regulations and safeguards are in place, along with the international agreements to back them. Mead says Australia's Optimal Pathway for acquisition of nuclear-powered attack submarines (SSNs) was designed to ensure that Australia would meet the exhaustive requirements to own and operate such vessels as soon as possible. According to the Optimal Pathway, the first stage will see the first of several US and British submarines operating from the base HMAS Stirling in Western Australia as Submarine Rotational Force-West (SRF-West) from 2027.



Astute-class submarine Audacious under construction at Barrow in Furness

Audacious is the fourth of the seven Astute Class submarines being built for the Royal Navy. The first two boats, HMS Astute and Ambush, are currently

undergoing sea trials. The third boat, Artful, is reaching the final stages of her construction at Barrow shipyard. All three are to be based at Faslane on the Clyde. In 2032, Australia will receive the first of three Virginia-class submarines from the US. One of the Australian officers now in US submarines is likely to be its commanding officer after extensive service on a US boat. The first two of those boats will be Block 4 Virginias, each with about 10 years' US service, and they'll be delivered after two years of deep maintenance and with 23 years of operational life left in them, Mead says, adding that the third US boat will be a brand new Block 6 Virginia. The US Navy has not yet put the Block 6 design into production.

The plan is to have the first SSN-AUKUS completed in Australia by early 2040s. Australia has an option to ask for two more Virginias if the SSN-AUKUS effort is delayed. Mead says that how long the Collins are kept operational will be a decision for the government of the day as the SSNs arrive. The current plan is to begin big overhauls, called life-of-type extensions, for the Collins class in 2026. He acknowledges that having the Virginias, SSN-AUKUS and Collin classes all operational could bring supply chain and training issues, but he believes those challenges can be handled. Having combat systems and torpedoes that are common to all these submarines will help.

Australians are on the design and design review teams for SSN-AUKUS. 'We are embedding more technical and engineering people into the British program.' Large numbers of Australian workers will soon be embedded in the British submarine construction site run by BAE Systems at Barrow, UK. 'Many will come from the Australian Submarine Corporation, where they've been working on Collins. They'll deepen their expertise, very specifically on how to build a nuclear-powered submarine,' Mead says. BAE will bring the intellectual property to the partnership with ASC to develop Osborne into a shipyard for nuclear-powered submarines.

It's often suggested in Australia that, because the US has fewer submarines than it believes it needs, it will refuse to hand any over to Australia if its own situation worsens. Senior American officials have expressed strong alternative views on why the project's success is very important to the US and why it is in their own interests to make it work. The US publication Defense News quoted the commander of US submarine forces, Vice-Admiral Rob Gaucher, telling a conference in April that co-operation with Australia would help the US submarine fleet in important ways. These included increasing the number of allied boats working together on operations. Having Australian personnel

gaining experience on US boats would help ease a recruiting shortfall in the US Navy that flowed from the Covid-19 epidemic, and having access to the Australian base at HMAS Stirling in WA would extend the US Navy's reach and maintenance options.



US Navy Attack Submarine. Image Credit: Creative Commons.

Gaucher said that, because the Australian SSNs would operate in co-ordination with American boats, 'we get more submarines far forward. We get a port that gives us access' to the Indo-Pacific region., He said that by the end of this year the US Navy would graduate about 50 Australians as nuclear-trained operators and another 50 submarine combat operators. They would train on US submarines for the rest of this decade, increasing the number of people qualified to stand watch on American boats. 'We get the opportunity to leverage an ally who can help us with manning and operating. We get surge capacity because now I have another area [where] I can do maintenance,' Gaucher said.

Dan Packer, a former navy captain who is now the US director of naval submarine forces for AUKUS, told Defense News that Australia had eight officers in the inaugural training cohort that began in 2023. Three of those eight will be moved into an accelerated training pipeline, and one will eventually be the first Australian Virginia-class commanding officer. Packer said the US was helping Australia build its submarine force from about 800 personnel to 3000. This year the US would bring 17 Australian officers, 37 nuclear enlisted and 50 non-nuclear enlisted into its training program. 'And we're going to up that number every year.'

These personnel would be fully integrated into US attack submarine crews until Australia could stand up its own training pipeline.

At some point, he said, the US Navy would have 440 Australians on 25 attack submarines, with each fully integrated crew including two or three Australian officers, seven nuclear enlisted and nine non-nuclear enlisted sailors. 'They will do everything that we do'. Mead says Australian navy personnel have been aboard the US submarine tender USS Emory S. Land for several months learning to maintain and sustain nuclear-powered submarines, and a US

Virginia-class boat will visit HMAS Stirling for maintenance this year. Parts will come from an evolving Australian supply chain.

That visit will not include reactor work, 'but ultimately, we will undertake work on systems that support the sealed power unit, within the compartment that houses it on the submarine,' Mead says. He says providing the industrial base to build and sustain the submarines, and crewing them, will involve about 20,000 jobs. A lot of work is being done with universities, technical schools and industry to prepare this formidable workforce.



US Navy Virginia-class Submarine Under Construction.

Mead has long been a student of international relations and says the decision to equip Australia with SSNs was based on recognition that the Indo-Pacific is becoming a more dangerous place and 'nuclear submarines provide a very effective deterrent'. He rejects the argument that technology will soon make the oceans too transparent for crewed submarines to operate safely. 'Our allies and partners and other countries in the region do not see it that way, and neither do we. We've done our analysis, and we see that crewed, nuclear-powered submarines will be the leading war-fighting capability for the next 50 to 100 years.' He's at pains to stress that the submarines will always be under full Australian sovereign control. 'They will always be under the Australian government's direction, operated by the RAN, and under the command of an Australian naval officer.'

About the Author:

Brendan Nicholson is a journalist and a former executive editor of the Strategist. This first appeared in May of this year in ASPI's The Strategist.

SUBMARINERS 'CROSSED THE BAR' (Reported 1st October 2024 to 31st December 2024 (** WWI Service)

Information on 'Submariners Crossed the Bar' compiled from CTBs reported by all available sources.

NAME	DATE/AGE	RANK/RATE	BRANCH	SM SERVICE	SUBMARINES
John Peter Drabble	2nd October 2024 aged 84	Lt Commander	Friend of SM Museum	1963 to 1971	ANCHORITE (1963 to 1964 NL), PORPOISE (1965 to 1967), TRUMP (IL 1967 to 1968) RORQUAL (1968), NEPTUNE (1970), COQC No. 70-1 & CACHALOT (CO 1970 to 1971)
Michael Geoffrey Tibbs OBE, MiD	2nd October 2024 aged 102	Lieutenant RNVR	Dolphin Branch	April 1943 to January 1946	ELFIN, DOLPHIN, L26, FORTH, TANTALUS & VARNE
Keith Marriner P054816	3rd October 2024 aged 82	ME1	Northern Ireland Branch	April 1963 to September 1967	ASTUTE (1963 to 1966), TALENT (1966 to 1967) & TIPTOE (on Commissioning at Chatham) on 24th February 1967
John (Yak) McAllister	3rd October 2024 aged 55	Chief Petty Officer MEM	We Remember Submariners	Not given	REVENGE, RENOWN, SOVEREIGN & HMNB Clyde (Escape Workshop)
William Lloyd (Bill) Owen	4th October 2024 aged 96	Captain RAN	SAA & Friends of SM Museum	RN 1949 to 1967 RAN 1967 to 1983	TANTALUS, SPRINGER, TOTEM, SCORCHER, SANGUINE, TRUMP, TIPTOE (IL), SUBTLE (CO 1956), ANCHORITE (CO 1959 to 1961), OPOSSUM (CO 1964) & PENGUIN, PLATYPUS & SM1
Eric (Red) Skelton P/MX 867169	6th October 2024 aged 93	Chief Radio Electrician	Barrow in Furness & Poole Branches	Not given	TALLY HO, THULE, AENEAS, ANDREW, STURDY, SEA DEVIL, SCORCHER, SANGUINE, SENTINEL, TURPIN, TABARD (6th March 1964 & on 'Commissioning' in 1965 & OTTER (Commissioning in June 1966)
Frank Scherber	6th October 2024 aged 76	Commander, RCN	SM Association of Canada	Not given	ORACLE, OJIBWA, ONONDAGA (IL), COQC No. 3/77, OKANAGAN (CO July 1980 to January 1982) & SM1 (RCN) April 1992 to April 1994
Edwin Wayne Farrelly	7th October 2024 aged 77	ME1	SM Association of Canada	January 1981 to 1985	ONONDAGA & OKANAGAN
Brian Anderson	8th October 2024	Petty Officer	We Remember Submariners	Not given	REPULSE, RENOWN & TORBAY
Julian M Dunn D131036T	9th October 2024	Ordnance Electrical Mechanic	We Remember Submariners	15th November 1976 to 19th August 1979	OPPORTUNE (8th August 1977 to 19th August 1979)
Neil Stewart BSc MA MBA	10th October 2024	Commander (E) MESM	We Remember Submariners	Not given	TRENCHANT, TIRELESS, BRNC, FOSM & NTRA
Kitson David Morgan	11th October 2024 aged 72	Lieutenant Commander RAN	SM Association of Australia	Not given	DOLPHIN, OVENS (January 1973), OXLEY & ORION
Thomas Derek Hill CO 21866D	17th October 2024 aged 75	Lieutenant Commander (E) (MESM)	Northern Ireland Branch	March 1976 to March 1991	DOLPHIN (1975), DREADNOUGHT (1976), COURAGEOUS (AMEO 1978 to 1980), OTUS MEO (1980 to 1982), SULTAN, SWIFTSURE (MEO 1986 to 1988) & NEPTUNE
David Albert 'Dodger' Long	17th October 2024	Petty Officer (UC1)	We Remember Submariners	Not given	SCEPTRE & TURBULENT
John Robert Brayton Bouchier	23rd October 2024 aged 93	Lieutenant Commander (X) (SM)	Friends of SM Museum	1952 to 1959	SELENE, TABARD & ALDERNEY
Norman A Donaghey	25th October 2024 aged 93	Petty Officer	RNA Tyne	Not given	ALLIANCE (Part III), TOTEM & SIDON
George A T Burgess J911433N	27th October 2024 aged 88	Chief Petty Officer (MW)	Gosport Branch	1956 to 1965	ANDREW, AUROCHS, TELEMACHUS, TRESPASSER
Colin Adair	27th October	Chief Petty Officer Ops	We Remember	Not given	Not given

	2024	(TS) (SM)	Submariners		
Gordon A Vasey P/KX 920829	30th October 2024 aged 89	Petty Officer M(E)	Nottingham Branch	March 1955 to October 1964	ALLIANCE, AUROCHS, THOROUGH, TRESPASSER & TAPIR (on Commissioning on 27th January 1961)
Roy Croft C/JX 896711	October 2024 aged 92	Leading Seaman	We Remember Submariners	Not given	Not given
Paul J Dymond D061433J	May 2024 aged 84	Petty Officer Electrical Mechanician	Dolphin Branch	December 1967 to August 1974	GRAMPUS & ORACLE
John Scott (Scotty) Brown P065904	November 2024 aged 78	ME1	Northern Ireland Branch	1964 to 1975	OBERON, ARTFUL, CACHALOT, RORQUAL & OLYMPUS
Paul A Donohoe	4th November 2024	Leading Radio Operator (SM)	We Remember Submariners	26 years' service	RENOWN, VANGUARD (P) (1st Commission Crew) on 14th August 1993, TIRELESS & Comcens Plymouth, Naples & Northwood)
John Frederick Eugene (Fred) Fisher	5th November 2024 aged 79	Warrant Officer ETC4 (SM)	SM Association of Australia	Not given	DOLPHIN, GRAMPUS, OTUS & ODIN & RAN OXLEY, OTWAY, OVENS, ONSLOW, ORION, OTAMA & COLLINS
Stephen G Fox	12th November 2024	Leading Marine Engineering Mechanic (M))	We Remember Submariners	Not given	SUPERB (1st Commission Crew) on 13th November 1976 & SPARTAN (1st Commission Crew on 22nd September 1979)
John Holland M975875	22nd November 2024 aged 82	Petty Officer Ordnance Electrician	Vectis Branch & We Remember Submariners	1955 to 1977	PORPOISE (twice), FINWHALE, CACHALOT, OPPORTUNE & ONYX
Christopher (Whiskey) Walker D146912D	26th November 2024 aged 66	Chief Petty Officer Weapons Engineering Artificer	West of Scotland Branch	Not given	RESOLUTION, REPULSE & VICTORIOUS (S) (1st Commission Crew) on 7th January 1995
Allan Birkby D/SKX 849350	November 2024 aged 94	Stoker Mechanic	Sheffield Branch	January 1951 to January 1955	ALLIANCE (1951 to 1953), ALARIC (1953) & UPSTART (1954 to 1955)
William G 'Bill' Smith M915064E	29th November 2024 aged 90	Chief Electrician	Blackpool & Fylde Branch	August 1953 to May 1974	SERAPH, AURIGA, TABARD (x 3), SCOTSMAN, TOKEN, ARTFUL, TIPTOE, SENESCHAL, EXCALIBUR, OSIRIS, REPULSE (S) & SOVEREIGN
John C Jamieson P/J983985	4th December 2024 aged 81	Chief Petty Officer (OPS) (S)	Ex-West of Scotland Branch	1963 to 1983	OSIRIS (1963 & on 'Commissioning' at Barrow) 11th January 1964, RESOLUTION (P) (1967 to 1970 & 1st Commission Crew) on 3rd October 1967, REPULSE (1971), RESOLUTION (P) 1973 to 1975) & CONQUEROR (1977 to 1979)
Peter J V Head C/SKX 803387	7th December 2024 aged 96	Stoker Mechanic	Colchester Branch	1949 to 1953	ALCIDE (1950 to 1952), AENEAS (1952), SANGUINE (1953) & SENTINEL (1953)
Philip (Yorkie) Ullathorne	7th December 2024	Charge Chief Marine Engineering Artificer	We Remember Submariners	Not given	Resolution Class including REPULSE final Patrol. (completed more than 25 CASD Patrols)
Brian H Martin	8th December 2024	Lieutenant Commander (MESM)	We Remember Submariners	Not Given	RALEIGH (2010), ASTUTE (2011 to 2012), ARTFUL (2014 to 2014), Submarine Delivery Agency, Barrow (2019)
John I Bushell P/SMX 858250	8th December 2024 aged 93	Electricians Mate 1st Class	Australia Branch (ex-Eastern States Branch)	July 1953 to March 1957	TRADEWIND, SCYTHIAN, TALLY HO, SEA SCOUT, ALLIANCE & THERMOPYLAE (1956 to 1957)
Victor M Evason D078600C	11 th December 2024 aged 79	Mechanician (P)	South Kent Branch	April 1972 to October 1979	Submarine Service from in GRAMPUS & FINWHALE

Colin (Jock) Muir	12th December 2024	Leading Control Electrical Mechanic	We Remember Submariners	Not Given	'S' & 'T' Class
Sam J Morrow D131812R	18 th December 2024 aged 68	Charge Chief Weapons Engineering Artificer (ADC)	West of Scotland Branch	1982 to May 1996	REVENGE
Joseph Albert Harris P/J 928307	29th December 2024	Fleet Chief Petty Officer Coxswain	We Remember Submariners	1956 to 1978	TABARD, SEA SCOUT, TOKEN, CACHALOT, AENEAS, NARWHAL, ALLIANCE, ALLIANCE (on recommissioning in 1966), ODIN, OLYMPUS, ORPHEUS & ORACLE
William (Bill) Hogg D/SSX 830654	December 2024 aged 93	Able Seaman (UW3)	Ex-Birmingham Branch	March 1951 to July 1958	SIDON, SUBTLE, TALENT, AENEAS (on Commissioning at Portsmouth on 27th September 1955) & SERAPH

