



IN DEPTH

Official Newsletter of the Submariners Association

Patron: Admiral of the Fleet Lord Boyce KG GCB OBE DL



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PRESIDENT

Rear Admiral Niall Kilgour CB

NATIONAL COMMITTEE

Chairman:

Jim McMaster
1, Blantyre Court
Bargarran, Erskine
Renfrewshire PA8 6BN
Tel: 0141 571 4094
Tel: 01436 674321 Ext. 2987
chairman@submarinersassociation.co.uk

Vice Chairman:

I.M.(Iain) Mackenzie. MBE
46, Almora Drive
Dumbarton
Dunbartonshire G82 1AE
Tel: 01436 673234
coxswainmackenzie@yahoo.com

Secretary:

I.W. (Ian) Vickers Esq.
160, Bradshaw Meadows,
Bradshaw,
Bolton,
Lancs. BL2 4ND
Tel: 01204 308539
secretary@submarinersassociation.co.uk

Treasurer:

S. (Brown) Stuart Esq.
14, Meadow Drive,
Horringer,
Bury St. Edmunds,
Suffolk IP29 5SB
Tel: 07590 195295
treasurer@submarinersassociation.co.uk

Membership Secretary:

David Woolterton
2, Thornton Close
Alresford
Hampshire SO24 9FE
Tel: 01962 734940
membership@submarinersassociation.co.uk

Newsletter Editor:

Barrie Downer
The Firs, Dundalk Street
Barrow Island
Barrow in Furness
Cumbria LA14 2RZ
Tel: 01229 820963
Frozensnorth55@gmail.com

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

EDITORIAL

Hello again to everyone from sunny (but cool) Barrow-in-Furness. Welcome to In Depth No. 65

I was just about to send out this Newsletter when news came in about the tragic accident on the Russian Navy submersible LOSHARIK whereby up to fourteen Russian seamen died and more are in hospital. I felt that it was necessary to recognise that the accident had occurred and include some limited details in this Issue. It is yet another reminder to us all about the need for eternal vigilance in all Submarine operations and the risks to which Submariners of all nations are exposed. Our sympathies go out to the families of those lost.

For this Issue I have had to delve into my records to find enough items to include as not too many submissions have been sent in from Association Members. There are a couple of press releases from HM Naval Base Clyde, a BAE report on their take on CASD50 and some Submarine reports from the internet and from the Newspaper reports - including the Daily Telegraph Obituary for Admiral Sir Peter Herbert who was the first Commanding Officer of HMS VALIANT.

There were several notable anniversaries in June which merited a mention – the 80th anniversary of the loss of HMS THETIS with the loss of 103 passengers & crew and the 100th anniversary of the loss of Submarine L55 - with all hands - during the Royal Navy 'Russian Intervention' in 1919. Now we are into July I can also report the 48th Anniversary of the introduction of 'Submarine Dolphins' into the Royal Navy – replacing the previous 'Sausage on a Stick' sleeve badge which some of our older readership will remember.

The Submarine K26 Serial is continued, there is a book review – but only the one this time – a book on K13 written by Submariner Keith Hall plus there are all the usual regular items included – so there should be plenty to keep everyone entertained.

Please read and enjoy this Issue of In Depth – your story can appear in the next or future issues - all you need to do is to write it down and send it by either E Mail or Snail Mail – my contact details are on this page. Sending in your stories and articles make my job as Editor easier – all I have to do is file them away and fit it into the next Issue.

You can also let me know about events being planned by your Branch or provide reports on events which have taken already place or on Branch Members who have done something special or merit particular recognition by others!

Regards
Barrie Downer

IN DEPTH No. 66

Issue No. 66 will be published on 1st October 2019. Contributions are required to be with the Editor by 15th September 2019 – please make sure I get them in time!

Cover Photo: RASM lays the Wreath at the HMS THETIS Memorial Service on 25th May 2019

CHAIRMAN'S REPORT

Friends and Fellow Submariners,

As I sit in the sunny summer weather up here in the west of Scotland, I am very aware that some of the country, particularly in the South East, Norfolk and Lincoln areas have been subjected to some really serious rainfall. I am particularly concerned that some of our much older members may require some assistance if they are in the flooded areas. Even if they do not need physical help sometimes just a familiar face popping in to see them and check on their welfare is a great comfort. So, if you are in these affected areas, please spare a thought for our older comrades.

The CASD50 Service of Thanksgiving held in Westminster Abbey on 3 May was a well-attended success. The Abbey was full as the great and the good of the Submarine Service and indeed the entire Royal Navy and families assembled to give thanks for the work carried out by everyone involved in the deterrent. It should be noted that these CASD50 celebrations are not exclusive to those who served on the Polaris and Trident boats. The invitation to attend events is aimed at all submariners.

On completion of the Service in the Abbey we made our way across the road to the QE Reception Centre where we all mingled and chatted and enjoyed some lunch. HRH the Duke of Cambridge attended both venues and spoke to several people there. As I said, a good event.



The next event in the CASD50 celebrations is the Ceremonial Divisions to be held in HM Naval Base Clyde on Friday 5 July. This grand affair will have a VVIP guest. There will be a Veterans platoon of 22 men formed up and 'inspected' by the appropriate people. Following divisions there will be a reception and capability demonstration.

Shiny Bomber Pins: I think most of you will know by now about the new shiny Deterrent Pins which are awarded to serving personnel who have completed 10 or more deterrent patrols. Many of you have asked if they will become available to veterans and the answer is that they are not available at this time. Unlike the pewter version, these have not been mass-produced and therefore are not in 'Slops'. However, the Command Warrant Officer Taff Care is actively seeking a means of sourcing sufficient numbers to allow us to distribute them to the worthy recipients. I will keep you informed on any progress in this matter.

Preparatory work being carried out with the objective of seeking to register as a charity has been progressing as planned. By this time every one of you should have received a copy of the draft document which gives details of the key points we have reached. I would emphasise that it is a *'work in progress'* but is the basis from which we expect and intend to develop our strategy as we progress. Of course, there will be changes, mostly minor I hope, as well as more specific detail in some areas as we progress through this procedure. It would be unrealistic to expect such a document to be perfect at the first publication. A great deal of work has gone into reaching this stage and I hope you will feel sufficiently satisfied to support us as we wade through the bureaucracy of seeking charitable status.

This very important document was sent to all branch secretaries on 11 June with the request that they give it the widest distribution to their members. If you have not yet been sent a copy, please ask your secretary for an explanation. If you have any questions, please send them to me (in writing) and I will ensure that you receive the appropriate response. Work has now started in the planning of this year's Service of Remembrance which will take place in Middle Temple Gardens on Sunday 3rd November. This is the most important day in our calendar, and I hope as many of you as possible will be able to join us to commemorate those who have gone before us. Thanks to the involvement and enthusiasm of the serving submariners this event gets bigger and bigger each year.

I trust you will all enjoy the forthcoming summer months. Remember, we have spent many years dodging the sun so take care in the good weather.

I hope to see you all soon.

Keep on keeping on

JMcM

NEW & RE-JOINING MEMBERS – 1st April 2019 to 30th June 2019

(20** = Serving Member) (**** = WWII Service)

NAME	RANK/RATE	BRANCH	SM SERVICE	SUBMARINES
B K (Brian) Barlow	Warrant Officer Coxswain (SM)	PLYMOUTH	Jul 1966 to Jun 1991	ORPHEUS (1966 to 1971), CHURCHILL (1972 to 1973), SWIFTSURE (1974 to 1976), OTUS (1979 to 1980) & SCEPTRE (1980 to 1987)
B (Brian) Bilton	Chief Petty Officer MEA (P)	BRIDLINGTON & DISTRICT	1978 to 1989	REVENGE (1979 to 1982) & ORPHEUS (1984 to 1987)
A G (Alan) Booty	Chief Petty Officer ME	GOSPORT	1962 to 1983	TOTEM (1963 to 1965), TABARD (1965 to 1966), TACITURN (1966), OBERON (1967 to 1968), WARSPITE (1971 to 1973), CONQUEROR (1974 to 1979) & CHURCHILL (1980 to 1983)
M J (Michael) Bray	Petty Officer REL	WEST OF SCOTLAND	1970 to 1977	RENOWN & REPULSE
N (Neil) Harvey	Warrant Officer 1	GOSPORT	Mar 1996 to 20**	SOVEREIGN, TRIUMPH, TALENT, TURBULENT & TRAFALGAR
W F (William) Hearn	Warrant Officer 1 (MEM) (L)	WEST OF SCOTLAND	1977 to 2009	REVENGE (1977 to 1980, RENOWN (1981 to 1984), RESOLUTION (1986 to 1990) & SPLENDID (1994 to 1996) & (1998 to 2001)
B R (Brian) Holme	LOEM	SUNDERLAND	Mar 1964 to 1971	ACHERON, ALCIDE, ANDREW, AENEAS, AUROCHS, AURIGA & TIPTOE
R A (Robert) Leithead	Petty Officer Cook	BARROW IN FURNESS	1964 to 1984	ORPHEUS (1964), VALIANT (1966 to 1965), REPULSE (1968), CHURCHILL (1970), SPARTAN (1978) & COURAGEOUS (1981)
P J (Peter) Lucey	Petty Officer MEM (M) (SM)	GOSPORT	1987 to 2007	SUPERB (1987 to 1989), TORBAY (1990 to 1993), SPLENDID (1995 to 1997), TRAFALGAR (1998 to 1990), TRIUMPH (2001 to 2002) & TORBAY (2003 to 2006)
A R (Geoff) McCready	Captain	EXETER	Jan 1972 to Oct 2001	WALRUS (192 to 1973), NARWHAL (1973 to 1975), SWIFTSURE (1977 to 1979), OTUS (1979 to 1980), ORPHEUS (1983 to 1985), UPHOLDER (1987 to 1991) & SCEPTRE (1991 to 1993)
B (Brendan) McConville	MEM1	WEST RIDING	1974 to 1976	RENOWN (S) (1974 to 1976)
J (Jonathan) Millward	Lieutenant Commander	DOLPHIN	1980 to 1999	ONONDAGA (1980), RESOLUTION (1980 to 1981), OTTER (1981 to 1983), TURBULENT (1987 to 1989) & (1992 to 1994)
J (John) Mosson	Leading Seaman (Sonar) (SM)	HULL	Sep 1977 to 20**	REVENGE (P) (1979 to 1986), RESOLUTION (P) (1986 to 1990) & VANGUARD (S) (1991 to 1996)
J R (John) O'Connell	LMEM (M) (SM)	DOLPHIN	1976 to 1984	CHURCHILL, CONQUEROR, WALRUS & ORACLE
G S (Steve) Phillips	Charge Chief MEA	NORFOLK	Jan 1979 to 15 Aug 2003	DREADNOUGHT (1979 to 1982), SCEPTRE (1983 to 1989), TORBAY (1989 to 1993) & 1989 - 3/5/1999) & TALENT (1999 to 2001)
M (Michael) Quinn	Lieutenant	WEST OF SCOTLAND	Sep 2017 to 20**	VIGILANT (2018 to 2019)
K (Kevin) Thompson	Chief Petty Officer WEA	DOLPHIN	1990 to 2001	RENOWN (1991 to 1995) & VANGUARD (1997 to 2000)
A J (Alan) Webb	Petty Officer Radio Supervisor (SM)	BARROW IN FURNESS	1976 to Aug 1992	RENOWN (P) & (S), SUPERB, TORBAY & CONQUEROR
J K (Joel) Wordsworth	Lieutenant	HULL	Sep 2010 to 20**	VENGEANCE/TIRELESS (Jan 2012 to Jun 2012) & VANGUARD/VICTORIOUS (May 2013 to Jun 2016)

THE CASD 50 STORY -THE BAE VIEW

This year marks the 50th anniversary of Continuous At Sea Deterrent - CASD50 - the longest unbroken operation ever delivered by the UK. It is known as Operation Relentless. For five decades we have worked side-by-side with the Royal Navy to help keep our nation safe. At BAE Systems, we are proud of our heritage in manufacturing and engineering excellence, of our role in delivering the world's most advanced and complex defence programmes and of the dedication, passion and innovation of our people.

Today, we remain as proud to work alongside the Royal Navy in defending our nation as we design, build and deliver the next class of deterrent submarines – Dreadnought. Over the next few weeks we will be shining the spotlight on our heritage, our people, our use of technology, our contribution to the UK and the future of our business.

As well as expanding our world-class workforce to deliver the next-generation Dreadnought submarines, our business works with suppliers all across the UK, through the supply chain for the programme. Some 85 percent of these are based in the UK, with substantial indirect economic effects as a result.

Over the course of the Dreadnought programme, the value of the supply chain is expected to reach £8-9 billion. More than 350 suppliers will be involved, with more than 100 suppliers already engaged.

Within our Submarines business as a whole, close to 5,000 suppliers across every region of the UK have been involved in our programmes in just a two year period between 2016 and 2018. Over the past five years, between 2014 and 2018, our company's supply chain spend has been more than £3.1bn, with £746.8m of that coming in 2018 alone.

The history of submarine design and manufacture is rooted in the fabric of Cumbria, but our business is a truly national endeavour.

Delivering Dreadnought

Today, our work on the Dreadnought programme represents one of the world's most advanced engineering challenges and will mark a step change in submarine design and technology when the first in class enters service in the 2030s. Technological advances, threat changes, new methods of design and production mean the new submarines will be a completely new design.

We are proud to be the industrial lead on the programme, proud to support our submariners and proud to play a vital role in the delivery of this next generation deterrent.

It is through partnership and collaboration across industry, with the Submarine Delivery Agency and with the Royal Navy that we are able to deliver on our commitments.

The Dreadnought programme marks an undoubted step change in submarine engineering and technology. But as the first in class enters service in the 2030s, daily life on board the giant vessels may also be just a little different to what the time-served submariner is used to. As part of the build, a huge amount of work has gone into making life underwater as comfortable as possible. Dreadnought will provide facilities over and above previous Royal Navy submarines, especially for keen readers and students. A space that can be used as a classroom and study area will be built into each boat.

Chefs will of course be part of the crewing complement. It is also the first Royal Navy submarine that will offer separate quarters, washing facilities and toilets for male and female crew members.

The amount of equipment on board is staggering, with many thousands of electrical items on board the ship powering every inch of each vessel, including a comprehensive lighting system. Lighting and décor are part of an overall effort to ensure life on board is as 'normal' as possible – an attempt to separate 'living' areas from 'working' areas. Anna Welch, Engineering Manager in Human Factors for our Submarines business, explains: "Submarines ultimately have to serve a warship function and as such they tend to be utilitarian spaces but we have to remember that they are not only a workplace, they are also home to our submariners for long periods of time and their downtime is equally as important as their watch-keeping hours. With this in mind we have worked to improve the accommodation spaces to make them feel more like home, increasing the emphasis on crew wellbeing." The working spaces on board Dreadnought will also have a different, sleeker feel – with many physical switches and buttons replaced with touch screen technology.

However, what won't change is the connectivity back to dry land. Modern life is awash with social networking and constant screen time, ensuring we remain connected at all times. But that approach has never been conducive to operational life at sea. During a typical patrol, the submarine's crew will remain cut off from the rest of the world except for short messages which can be sent by families each week. The submariners will remain unable to send messages back.

Defence Secretary praises 50 years of service as new submarine is named

The Defence Secretary announced the fourth Dreadnought submarine as HMS KING GEORGE VI ahead of the special service at Westminster Abbey on May 3rd to recognise the Royal Navy's Continuous at Sea Deterrent (CASD) over the past 50 years. Since April 1969, a Royal Navy ballistic missile submarine has patrolled every single day, without interruption, providing the nation's deterrent and helping keep the UK and our allies safe. This is the UK's longest sustained military operation ever undertaken and is known as Operation Relentless.

Defence Secretary Penny Mordaunt said: "Operation Relentless has seen generations of submariners from HMS RESOLUTION to HMS VENGEANCE on constant watch, for every minute of every day for the last five decades. This is the longest military operation we have ever undertaken and continues right this minute deep under the sea. "We pay tribute to those incredible crews, their supportive families, the Royal Navy and the thousands of industry experts who will continue to sustain this truly national endeavour for many years to come."

CASD50 provides a chance to not only remember the national endeavour of the past half century but to look to the next generation of ballistic missile submarines, the Dreadnought class. This will consist of four boats helping to ensure the security of generations to come. The Dreadnought-class are expected to enter service in the early 2030s, helping to maintain Operation Relentless



The photo above shows the Accommodation Unit for the new DREADNOUGHT Submarine is seen here being moved across BAE Systems Submarines site in Barrow, where it is being constructed. It is the first unit of DREADNOUGHT's forward end to be moved from the New Assembly Sheds (NAS) into the new Central Yard Facility (CYF). (BAE Tweet 21st June 2019)

THE NEED TO FEED – CATERING TEAM RECOGNISED FOR CONTRIBUTION TO COUNTRY'S DETERRENT

HMNBC 21/18 Thursday, 11 April 2019 (Sent by: Gavin Carr, Royal Navy Media & Comms, HM Naval Base Clyde.)

It's not just an army that marches on its stomach – Royal Navy submariners patrol on their stomachs too and that's why HMS VENGEANCE (Port) Catering Services team have picked-up an award for their exemplary work.

For every hour of every day, non-stop for the past 50 years, a deterrent submarine has been patrolling somewhere in the earth's oceans.

Able to create its own power, oxygen and water, about the only thing limiting the length of a deployment is the need to feed. And, to put it into perspective, that's breakfast, lunch, dinner, and snacks, for some 140 people for months at a time. That's a lot of snacks! The crew can't just pop down the shops for a loaf, so enter the Catering Services team from HMS VENGEANCE (Port). The small, eight-person team are experts in supplying the Royal Navy Submarine Service, pulling-out all the stops to make sure their 'Vanguard' class submarine can keep submerged and patrolling.

On Wednesday, April 3, the Catering Services teams' contribution was formally recognised when they were presented with the Fleet Catering Award for 2018-19. "The Catering Services team of HMS VENGEANCE (Port) are more than worthy recipients of the Fleet Catering Award for 2019," said Commander Duggie Ward MBE, Commander Logistics for the Submarine Flotilla. "They face catering challenges unknown by their General Service counterparts in having to produce balanced, interesting and healthy meals long after the fresh produce has run out; there is simply no option of a replenishment at sea or a top-up on a port visit for this team."

Crew members on board a 'Vanguard' class submarine look forward to mealtimes. As well as being responsible for keeping hunger at bay, submariner chefs also help to maintain high-morale and wellbeing. But the Royal Navy chefs can't cook-up a storm unless they have the ingredients to work with. Supplying and storing the food is a major challenge and one that the Catering Services team have got down to a fine art.

"Food is massively important on board," said Warrant Officer 1 Michael Ellison, a Logistics officer with the Submarine Flotilla's Catering Services Waterfront Support team. "On patrol basic things become very important and the quality of the food is a fundamental part of maintaining morale. The chefs on board will prepare a meal every six-hours.

"It takes around three-days to store a submarine with fresh, frozen and dry goods, and the way we get supplies on board hasn't really changed from Nelson's day. It's a whole crew commitment and everyone gets involved in a human chain running from the dockside to inside the boat."

He continued: “There are freezers and fridges on board of course, but every bit of available space on a submarine is used. We must plan carefully because you don’t want fresh food stored in a hard-to-reach place at the back where it will go bad. “Submariners are creatures of routine and so they expect curry on Wednesdays, fish and chips on Friday, and a roast on Sunday. There would be some really unhappy submariners if they didn’t have Cheesy Hammy Egg!” A Royal Navy staple – Cheesy Hammy Egg consists of cheese toast with a slice of ham and an egg on top and is more delicious than it sounds! The Fleet Catering Award is awarded annually to the most outstanding Catering Services Department in the Royal Navy. The Submarine Service has held the award for two years in a row now, with HMS VENGEANCE (S) being the recipients last year.



The Catering Services Team from HMS VENGEANCE (P) are presented with their award by Commander Douggie Ward MBE Royal Navy.

Submariners at Gallipoli

(Russ Timpson – East Kent Submariners)

Between February 1915 and January 1916, the Royal Navy played a significant part in the various battles that took place within the ill-fated Gallipoli campaign. Submariners in Submarines E2, E7, E11, E12, E14, E15, E20, B6, B7, B8, B9, B10, B11, AE2, H1, H2 and H4 provided one of the few success stories within the conflict, resulting in the award of four Victoria Cross decorations to Submarine commanders – although the 4th VC was not awarded until 1918

In 2015, I had hoped to lay a Submariner’s wreath at the Memorial at Helles, located on the tip of the peninsular as part on the centenary celebrations. For various reasons this was not possible, and I have long sought to complete the task and deliver the wreath as intended.

My interest in the role of RN submariners in the battle, led me to join the Gallipoli Association (<https://www.gallipoli-association.org/>) and to network with some very eminent military historians. Most coverage of Gallipoli focuses on the role played by the Australian and New Zealand Army.

www.submarinersassociation.co.uk

My research revealed many fascinating stories of heroism and dedication to duty.

During May 2019, I was able to join a historical walking tour of Gallipoli and place the wreath at the memorial. The day I visited was very bright and the sun was shining. However, being close to the seashore there was a very strong wind blowing. In the end I had to find a heavy stone to hold the wreath down to avoid it blowing away.

My fellow travellers from UK, Australia, Canada and New Zealand were surprised to hear that RN submariners made real impact at Gallipoli by preventing resupply across and down the Dardanelles via the sea of Marmara.

Later in the tour I visited the Turkish Naval museum at Cannakale.

Some really interesting exhibits – well worth a visit.

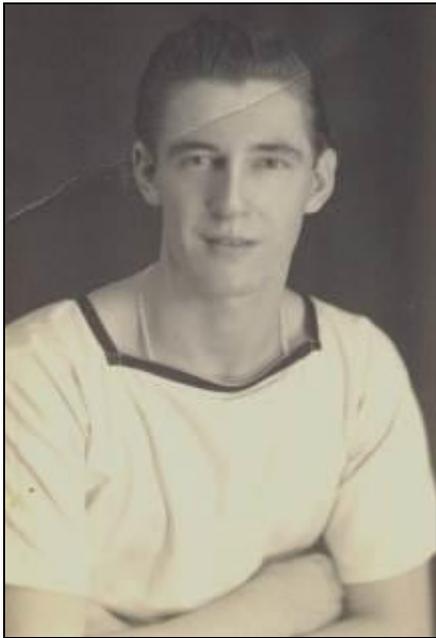
HMS TRUCULENT LEONARD ALBERT DAW

From June Wray (aged 92), New Zealand
9th April 2019

My brother, Leonard Albert Daw, aged just 21, was one of the 64 that perished on HMS TRUCULENT on the night of the 12th January 1950.

Buried alongside his mother Catherine at the Old Paddington Cemetery in London, the family are proud once again to acknowledge his sacrifice for his country with the placing of a new memorial headstone, plot number 19051 1B. Leonard escaped the stricken vessel, only to be tragically swept away in the current - he would have succumbed to the freezing Thames Estuary waters. Leonard's body was recovered three months later on the 22nd April 1950 in the Thames Estuary.

A young life tragically cut short, my only comfort over the past 69 years has been the knowledge that he was with his friends and shipmates that night. I know in my heart till the end of my days, that he would have fought with all of his courage, against all of the odds that fateful night to be with his family, sadly this was not to be.



SUBMARINE DOLPHINS

Where were you on 15th June 1971? HMS VALIANT was in Refit in Chatham Dockyard (the first Nuclear Refit in that Yard) along with HMS

WARSPITE - undergoing a Docking and Essential Defects (DED) period in the next Dock and an 'O' Boat (I've forgotten which one) - which was either refitting or fitting out at St Mary's Island. I was the Sonar 2001 Maintainer in VALIANT at the time. All three Ships Companies went on Divisions in the Yard for the formal presentation of the first ever RN 'Submarine Dolphins'. These Dolphins were in the form of a Brooch (I still have mine) - and not a Pin style as they are today. There were probably well over 200 of us on parade but, unfortunately, there were only nine sets of 'Dolphins' available - three per boat - on the basis of one Officer, one Senior Rate and one Junior Rate per boat to be the lucky recipients.

I hear that similar Divisions were held in HMS DOLPHIN where FOSM made the Presentations - I expect they had a few more Brooches to be dished out there. Other similar Divisions were held in Faslane and at Vickers in Barrow; in Dounreay; at Cammell Lairds at Birkenhead and at Devonport.

The rest of us had to wait for some weeks until enough 'Submarine Brooches' were available, and a package arrived onboard. The Dolphins were dished out quite unceremoniously by the Coxswain - none of this fancy new 'Tradition' of downing a tot of rum and catching your 'Dolphins' in your teeth!

Editor

A Message from the National Membership Secretary

Membership Update

The purpose of this update is to explain a little about the Association's Direct Debit system for your annual subscription payments direct to National.

Despite what members are being told by their Branches, any member can choose to pay their annual subscriptions directly to National by Direct Debit, and this is recommended method by National for members still serving, but it is your choice.

The Association uses a system called Go Cardless to process all Direct Debits to National. All Direct Debits are set up to collect your Association Subscriptions during the first week in January. I will send a reminder to all those on this system in the December.

When we configure your mandate; we configure it to collect the National part of your Subscription along with any branch part if your Branch also has an annual fee. The reason this is done is because in the past we have had members pay the National part to us and then the Branch has tried to lapse the member for not paying the branch their part.

When all member's subscriptions have been paid and confirmed by the end of February, I produce a list of all subscriptions National needs to be paid

back to the branch, which is then sent to the National Treasurer for payment. It is intended to have all payments made to those Branches, so they are received before the National conference in March (AGM).

Note for Branch treasurers I need to be informed by the end of November if there are to be any changes to the Branch part of the annual subscription for the following year, so that I can make any appropriate changes to their members Direct Debits for collection in January.

For those who wish to pay their subscription by this method, you can do so by following the instruction on the Association Website at this link:

<https://www.submarinersassociation.co.uk/member-ship/direct-debit-payment>

HMS AUDACIOUS – SOME DELAYS?

HMS AUDACIOUS yet to begin sea trials, risking further decline in Royal Navy submarine numbers.

Construction of AUDACIOUS has fallen yet further behind schedule. From the limited public information available, here we briefly assess the situation.

As recently as February 2017 the MoD said it expected AUDACIOUS to enter service in November 2018. More than two years later it is clear something is amiss. It is now June 2019 and AUDACIOUS remains afloat in the dock at Barrow and yet to put to sea, 12 years after her manufacture started.

In late 2018, HMS MAGPIE was dispatched to survey the Walney Channel at Barrow, supposedly in preparation for the submarines' imminent departure. Sources at a company involved in supporting AUDACIOUS on sea trials stated in October 2018 that they expected to be called on to assist "next Spring". Responding to enquiries today, the MoD is only able to confirm AUDACIOUS will commence sea trials "this year" which could imply next week or months away. As for boat 5, HMS ANSON, the MoD is even more vague, saying she is "expected to enter sea trials in the early 2020s."

The delays to AUDACIOUS risk the RN's attack submarine force declining even further, at least temporarily, down to just 5 boats. Whether the current 6-boat fleet can be maintained is now probably dependent on the oldest submarine, TRENCHANT, being kept going beyond her planned decommissioning this year. Even if AUDACIOUS started sea trials tomorrow, it will take many months to rectify the inevitable snags, be commissioned and then work the boat up to be fully operational.

When asked if TRENCHANT's decommissioning might be postponed, the MoD issued their stock answer; "The planned out-of-service and in-service dates for Royal Navy submarines are withheld as

disclosure would, or would be likely to, prejudice the capability, effectiveness or security of the Armed Forces". This is a significant change in policy, back in 2013 the Defence Minister was happy to publish planned 'in service dates' of nuclear submarines. One might conclude the sudden shyness about discussing the strength of the submarine force has everything to do with obscuring increasingly embarrassing delays and little to do with operational security.

According to the written answer to a Parliamentary question given in 2013, TRENCHANT was due to go in 2019. (It should be noted TIRELESS and TORBAY retired in 2014 and 2017 respectively as scheduled and in line with the dates given in the written answer.) TRENCHANT completed a 3-year refit in April 2017 described as "the largest and most complex ever undertaken at Devonport". After such a considerable investment was made in the veteran boat it is possible, although launched 33 years ago, she could manage to continue to serve beyond this year. This would mostly be dependent on the material state of her hull and how much life is left in her reactor core.

AUDACIOUS successfully completed her first trim and basin dive in the Devonshire Dock in January 2018. AUDACIOUS is in effect a 'batch II' boat with some significant internal changes and improvements building on lessons learned from the first three boats. Details are sketchy but some of these upgrades have already been de-risked and 'back fitted' to boats 1-3, especially to the combat system and electronics taking advantage of their open architecture. The batch II design is supposed to eliminate some complexity and utilise more commercial off the shelf (COTS) equipment.

It is acknowledged that the submarine supply chain has struggled due to lack of continuity and the MoD has lost some expertise in this procurement speciality. Other than these background issues, the precise reasons for the delays and spiralling costs remain conveniently hidden behind the blanket of secrecy surrounding the submarine programme. There is little justification for the deafening silence about problems with what is arguably the most critical conventional UK defence asset and the taxpayer deserves a proper explanation. It is the failures of the construction programme that is 'prejudicing the capability of the Armed Forces' and it is not as if our adversaries cannot easily find out for themselves our inadequate number of submarines. Creating public pressure for the RN to get the submarines it needs in a timely manner could, however, be politically inconvenient.

In the 1960s and 70s, British industry was consistently turning out nuclear submarines in around 4½ years at a time when it was plagued by dire industrial relations and supposed inefficiency.

While in the 21st Century, despite the benefits of digital technology and automated tools it is taking about twice as long to build an SSN. There are undoubtedly dedicated people at Barrow doing their best in partnership with DE&S and the Navy to get Audacious to sea. The story of the ASTUTE class submarine procurement is long, complicated and a lesson in what happens if you allow your skill base to erode. But by now we might expect the acknowledged historic failures of the programme to be firmly in the past and it is hard to understand why the construction time of the later boats is little better than the first.

NUCLEAR SUBMARINE DECOMMISSIONING

A new Bill presented to Parliament

Luke Pollard Shadow Minister (Environment, Food and Rural Affairs) (Fisheries, Flooding and Water)
2:13 pm, 19th June 2019

I beg to move,

That leave be given to bring in a Bill to require the Government to prepare a strategy for recycling out-of-service Royal Navy nuclear submarines and to report annually on progress, to consult on extending decommissioning powers in Part 1 of the Energy Act 2004 to include the recycling of Royal Navy nuclear submarines, and to publish estimates of the taxpayer liability associated with such submarines; and for connected purposes.

Britain still has every nuclear submarine that it has ever had. There are 13 old nuclear submarines tied up in Devonport in Plymouth and seven tied up in Rosyth. When I was elected in 2017, I said that I would make safely, securely and sustainably recycling these submarines one of my priorities. I have asked the Prime Minister two questions at PMQs about the lack of a funded plan to recycle them. I have helped to put together a cross-party campaign with the hon. Members for Dunfermline and West Fife (Douglas Chapman) and for Berwick-upon-Tweed (Anne-Marie Trevelyan). We have met Ministers, submitted proposals and encouraged the questioning of the Public Accounts Committee, which published an excellent report on the subject today. We now present our arguments and proposals in this Bill. The Bill has cross-party backing from a range of colleagues who are all as passionate as I am to get these nuclear submarines recycled safely and securely, and I am grateful to see so many of them in the Chamber.

Many people are not aware that we still have all the submarines that have served in the Royal Navy. The 13 stored in Devonport and the seven in Rosyth are potentially just the start of many more to enter storage. The oldest submarine stored in Devonport is HMS Valiant, which was launched in 1963 at the height of the cold war. The submarines can be seen

on Google Maps—if you zoom in on Plymouth, on the left-hand side of the city, at No. 3 basin in Devonport, they will see lines of nuclear submarines, many of which have been there for decades.

It would be easy for me to make cheap headlines by saying that these nuclear submarines pose a safety risk, but populism is not my style. I want to be clear that there is no immediate safety risk to our local communities from these submarines. Babcock does all it can to look after the submarines, ensuring that there are no leaks and no risks to our communities. I thank the company and its staff for their work, but Plymouth and Rosyth cannot be asked to look after the submarines indefinitely without a plan for their disposal.

This is a personal matter for me. I am the son of a submariner who served on HMS Swiftsure and HMS Conqueror and worked on refitting and extending the operational lives of many of these submarines as an engineer in Devonport—my family know these subs well. It is a point of curiosity not lost on my old man that one Pollard served on them, and his son is busy trying to chop them up and dispose of them, but both Pollards are doing what is in the national interest.

We already have a civil nuclear programme dealing with the clean-up of our civil nuclear past. The taxpayer-funded Nuclear Decommissioning Authority is working on cleaning up 17 old civil nuclear sites, but its work does not currently cover decommissioned nuclear submarines. The taxpayer has an unlimited liability for the clean-up, as clearly stated in the Energy Act 2004, and rightly so. We know that nine of the 20 submarines retired since 1980 contain nuclear fuel. They are not currently a risk, but they need to be dealt with. My Bill seeks to prepare the ground for the extension of the unlimited taxpayer liability for civil nuclear clean-up to these old Royal Navy submarines. If we extend the line of credit from the Treasury, work can begin, and we can genuinely deal with our nuclear legacy.

These submarines are not only taking up valuable space in our dockyards but costing the taxpayer millions of pounds a year in storage and maintenance costs. The Public Accounts Committee has today released a report that puts the cost to the taxpayer at £30 million a year. That money could and should be used for dismantling and defuelling the submarines and finally dealing with these retired boats.

The report warns that the Ministry of Defence is reaching a “crisis point” in terms of space and will run out of space to store submarines by the mid-2020s. In the next four years, three more Trafalgar class submarines will need to be stored somewhere, as they are replaced by the new Astute class subs being built in Barrow. The Prime Minister told me in this Chamber that they will be stored at Devonport,

taking our number of old retired submarines up to 16. A decade later, the four Vanguard class Trident subs will need to be stored when they are taken out of service and replaced by the new Dreadnought class submarines, but where will they go? There is no space at Devonport, and Rosyth is closed for more submarines. That is why we need a funded plan to deal with the ones we have and make space for the ones that will come out of service soon.

Instead of further delaying this decision, it is clear that the Government need to act now. I know that Rosyth has plans for the dock space currently used by the submarines, and I want No. 3 basin in Devonport to be used to enhance the base-porting location for the brilliant new Type 26 frigates we will get, and hopefully the Type 31 frigates in due course. Over a year ago, I helped to kick off this campaign with colleagues from all parties. We wrote to the Prime Minister urging her to fund a defuelling and dismantling strategy. These submarines will not go away on their own. Although they have been hidden out of sight for many years, the longer this recycling project drags on, the more expensive it becomes to deal with them. Retired submarines have been ignored by Governments of all colours for more than 50 years. They need to be dealt with properly—I think all parties can unite on that—to secure a safe and decent future.

A properly funded defuelling and dismantling strategy—broadly, submarine recycling—would present opportunities to invest in skills and innovation. It would also foster greater collaboration between the defence and civil nuclear sectors. The workforce already moves between those sectors, as does the science of decommissioning, but at the moment the Government still deal with them in two distinct silos. There is an efficiency for the public purse in collaborating, and the future really must be more joined up between the ministerial and official level and the work on the ground and in the docks. Decommissioning is highly skilled and technical work that creates good jobs and supports the local economy and community. Above all, recycling these old nuclear submarines is in the national interest. Plymouth and Rosyth cannot be asked to store old nuclear submarines indefinitely. That is why we need a properly funded plan for these submarines, using the same principles as in the civil nuclear clean-up programme, because they must be recycled safely, securely and sustainably.

We know that once people find out about these submarines, they are concerned about what will happen to them. We also know that once people have seen them—whether on Google Maps, in person by driving alongside the docks in Devonport and Rosyth, or on the warship tours in the dockyard in Devonport—they have no choice but to think about what should happen to them. That is why, on

behalf of the hon. Members for Berwick-upon-Tweed and for Dunfermline and West Fife, I am presenting this Bill as part of a campaign that will not rest until we win. I am doing so to highlight these subs and to demand—politely, but firmly—that a solution is found. We need to acknowledge that these nuclear submarines exist and need to be dealt with. We need a proper plan from the MOD for recycling these submarines, with a clear timeframe, and we need to extend the unlimited taxpayer liability to ensure that this essential work can be delivered. That is what my Bill will do, and that is why it has cross-party support. I hope Ministers will pick it up and run with it.

Question put and agreed to.

Ordered, That Luke Pollard, Anne-Marie Trevelyan, Douglas Chapman, Dr Julian Lewis, Meg Hillier, Mrs Madeline Moon, Ruth Smeeth, Sir Gary Streeter, Richard Harrington, Dr Alan Whitehead, Jamie Stone and Mr Tanmanjeet Singh Dhesi present the Bill.

Luke Pollard accordingly presented the Bill.

Bill read the First time;

(Citation: HC Deb, 19 June 2019, c264)

FOREIGN SUBMARINE NEWS

RUSSIA'S SUBMARINE DEFECTS?

By Mark Episkopos

Russia inherited a vast, if not bloated, catalogue of Soviet submarines built in the decades following the Cuban Missile Crisis. Many of these fell into disrepair over the 1990's due to insufficient maintenance. Others were simply not needed in the context of Russia's new geostrategic goals, at least not the massive quantities typical to Soviet submarine production.

Over the early 2000s, Russia's submarine modernization program was primarily concerned with the problem of what to do with these Soviet vessels; which should be refitted, and which should be decommissioned? How "deep" can a refit be—that is, how many core components need to be swapped out—before it stops being cost-efficient?

But in the present day, these questions have been asked and answered. With the fate of most Soviet-era submarines now clear in one way or another, the Kremlin is eyeing the next generation of Russian submarines. By far the most anticipated of these is the Borei and Yasen classes; the former is a ballistic-missile submarine meant to replace the aging Delta and Typhoon lines in Russia's nuclear triad, while the latter is to be Russia's flagship cruise-missile attack submarine. Yasen's current incarnation is Yasen-M, an iterative upgrade meant to account for the sixteen-year window between the first commissioned Yasen vessel and the upcoming Kazan submarine.

Whereas Borei development and production has been moving along at a slow but steady pace, the Yasen-M project continues to face delays. According to a statement made by a Russian defence insider to the TASS state news agency, Kazan will not be delivered to the Russian in 2019: "Following the results of dockside trials, and also the winter stage of shipbuilders' trials [which ended in January], it has been established that some of the ship's auxiliary sub-assemblies and mechanisms do not meet the requirements of the specifications set by the Defence Ministry, including reliability characteristics, and require finalizing in the Sevmarsh dock."

The scale of development work on these "auxiliary" systems is so great that Yasen stands to be delayed by an entire two years: "It is absolutely unrealistic to accomplish all this by the end of the year. It is not ruled out that the entire year 2020 will be required and the Sevmarsh Shipyard will be able to deliver the sub to the Fleet only in 2021."

Seemingly corroborating TASS' anonymous source, United Shipbuilding Corporation (UAC) chief Alexey Rakhmanov complained to RIA News--another state media outlet-- that "testing submarines is not easy. we are talking about how the control systems, which were used for the first time on this submarine, work. Besides, I won't lie, a number of design flaws were discovered."

It remains unclear precisely what these "design flaws" consist of. Not counting the sixteen-year hiatus between Yasen and Yasen-M, Kazan was already once delayed after being scheduled for a 2017 delivery. The reasons for that delay remain equally as murky as this one, though Russian industry sources suggested that logistical-industrial and financial issues were to blame. By comparison, Kazan's current problems appear to be of a decidedly more technical nature.

Nonetheless, monetary concerns will continue to figure prominently into Yasen-M's fate. Given the strain of producing two new submarine classes at once, pushing back Kazan's launch could offer the Russian military-industrial complex much-needed breathing room to push out the Knyaz Oleg and Generalissimus Suvorov Borei-line submarines over the coming year before turning their resources back to the Yasen project.

Mark Episkopos is a frequent contributor to 'The National Interest' and serves as research assistant at the Centre for the National Interest. Mark is also a PhD student in History at American University.

US GAO Says COLUMBIA Submarine Risks Running Over Budget Due to Immature Technology

By: Ben Werner April 8, 2019

The Columbia-class ballistic missile submarine, the Navy's top acquisition priority, is at risk of running over its \$115-billion construction budget because the service underestimated labour costs and overestimated the savings associated with awarding a multi-year contract, according to a General Accountability Office report released Monday.



An undated artist's impression of the planned Columbia-class submarine.

Naval Sea Systems Command Image

It also risks running over schedule: several critical technologies are not mature enough to keep up with an aggressive construction schedule, the GAO says, and if any of the technologies encounter a production setback during development, fixing these technologies will require additional labour hours and drive up production costs.

Already, the Columbia program experienced manufacturing defects with the new class of submarine's missile tubes and with the integrated power system, requiring added labour costs to correct, according to the report. When the program had to design a new software tool that's used to generate submarine designs and work instructions due to obsolescence in the original software, developing the new tool proved so challenging that it forced the hiring of 150 additional software engineers and delayed the completion of some designs. The new software now takes longer to generate instructions than initially expected, further adding to the cost.

"The Navy's \$115 billion procurement cost estimate is not reliable partly because it is based on overly optimistic assumptions about the labour hours needed to construct the submarines. While the Navy analysed cost risks, it did not include margin in its estimate for likely cost overruns," the GAO report reads.

A Naval Sea Systems Command spokesperson acknowledged a request for additional comment but did not immediately provide a statement on the GAO report.

"The Navy anticipates that it will need 12 million labour hours to directly construct the lead submarine - referred to as touch labour. This represents 17 percent fewer labour hours than what was needed for the lead Virginia-class submarine when adjusted for weight differences," the GAO report continues. "However, the touch labour hour estimate is overly

optimistic—with assumptions on construction efficiencies that are either unsubstantiated or unprecedented compared to Virginia class and other shipbuilding historical data.”

One example the GAO uses to illustrate the risk the Navy faces is a manufacturing defect in the prototype propulsion motor that is part of Columbia’s integrated power system. Fixing the problem required extensive repairs and consumed nine months of the cushion built into the production schedule at the land-based test facility.

The Navy’s solution is to test the motor during the time initially allotted for making any final design changes before starting production. “This could constrain opportunities to implement timely, corrective actions if problems are discovered during testing,” according to the GAO.

Since January 2018, such added labour costs have had a dramatic result on the Columbia program’s costs. The GAO analysis found that “less than a dollar’s worth of work has been completed for each dollar spent.”

The Navy does not agree with all of the GAO’s findings. In a February 2019 letter included in the GAO report, Kevin Fahey, the Department of Defence assistant secretary for acquisition, counters the GAO’s concerns regarding the integrated power system’s prototype motor.

“While the vendor manufacturing the motor has experienced delays in manufacturing the prototype motor, the rest of the integrated power system is being installed and tested at the test facility,” Fahey’s letter states. “In addition, as briefed to GAO, the Navy has taken proactive measures to mitigate the impacts associated with the late delivery of the prototype motor. The actions taken by the Navy retain margin to lead ship production motor in yard delivery date.”

Responding to Fahey’s letter, the GAO stated, “the Navy’s plan to concurrently test and finalize the design increases the risk that any issues identified in testing could delay the delivery of the system to the shipyard. As a result, we continue to identify this as a key risk to the program. Additional details on this system are classified.”

The Pentagon and the GAO do agree the Columbia-class supplier base remains a high risk to construction. Fahey’s letter states early prototype efforts identified issues with suppliers that are being fixed. The GAO is concerned with the shipyards’ and suppliers’ ability to build Columbia-class submarines at the same time work progresses on building the Virginia-class fast-attack submarines.

“To achieve Columbia’s aggressive construction schedule, while simultaneously building Virginia-class submarines, the shipbuilder is working to ensure that it has sufficient shipyard capacity—

including new facilities, additional suppliers, and an increased workforce,” the GAO report states

Indian Navy finds defects in Scorpene submarine

One more year of delay

The Indian Navy has refused to commission the KHANDERI into service until all its defects and deficiencies are fully rectified

Ajai Shukla, New Delhi - June 15th 2019



The Indian Navy has refused to commission the KHANDERI into service until all its defects and deficiencies are rectified

Project-75, which involves building six Scorpene submarines in Mazagon Dock (MDL), Mumbai, had already been running five years late by the time the first one, INS KALVARI, was commissioned on December 14, 2017. With the navy reporting a host of problems in the second vessel, INS KHANDERI, the project has now slipped by at least one more year. The navy has refused to commission the KHANDERI into service until all its defects and deficiencies are fully rectified.

The defence ministry has fully supported the navy’s insistence that MDL and its technology partner, French warship builder Naval Group, deliver a fully seaworthy and battle-worthy vessel. “The liability of delivering a fully functional submarine is that of Naval Group. If we accept the boat with shortcomings, the liability would be on us,” said a senior admiral. The most worrying problem the navy discovered during the KHANDERI’s sea trials was a killer defect for a submarine: Its engines and propellers were emitting an unduly high level of noise.

A submarine’s effectiveness in battle, and its very survival, depends upon it remaining undetected. Enemy sonar detectors - mounted on aircraft, warships and submarines - search relentlessly for sounds emitted by enemy submarines. Once detected, a submarine is easy meat for enemy depth charges or torpedoes.

The KHANDERI’s noisiness is not its only problem; the navy has pointed out 35 other defects and has demanded they be rectified before it commissions the vessel. Nor can these problems be

addressed quickly, since 29 of them require to be tested when the sea is absolutely calm - or in what is termed "Sea State - 1". With the monsoon imminent, calm seas are unlikely before September.

Another four issues require the submarine be docked in a navy dockyard for testing. This runs up against an existing docking schedule that dockyards have already issued, involving numerous other warships.

Meanwhile, the third Project-75 submarine, INS KARANJ, has just begun trials. It is unclear whether there will be as many problems as with the KHANDERI. The Indian Navy and MDL both declined to comment on the matter. However, neither of the two denied the existence of numerous defects in the KHANDERI. For the navy, which is making do with just 14 conventional submarines against a requirement of 24, the INS KHANDERI delay extends a dangerous operational void. Over recent years, both the navy's nuclear submarines, the indigenous INS ARIHANT and the Russia-leased INS CHAKRA, have been out of action for extended spells after accidents.

Project 75 kicked off in 2005, when the navy signed a Rs 18,798 crore contract for MDL to build six conventional submarines, with technology transferred by Franco-Spanish consortium Armaris. All six Scorpenes were to be delivered between 2012 - 2015, but the sixth will only be delivered now by 2022. Meanwhile, Armaris was taken over by France's Direction des Constructions Navales Services (DCNS), and its cost went up to Rs 23,562 crore. In 2017, DCNS changed its name to Naval Group. Besides INS KALVARI, the navy's 14 conventional submarines include four 20 - 30-year-old, German-origin HDW 877 EKM boats (called the Sindhughosh-class); and nine 10 - 20-year-old, Russian-origin Kilo class Type 209 vessels (called the Shishumar class).

In addition to five more Scorpenes, six more conventional submarines are planned to be built under Project 75-I, by an Indian firm in partnership with a foreign vendor. Tendering for that is still to begin.

ROYAL NAVY TEE OFF AT THE HOME OF GOLF

HMNBC 27/19 Monday, 20 May 2019 Kim Hardie, Royal Navy Media & Comms, HM Naval Base Clyde.

Royal Navy sailors from all over the country gathered in St Andrews on Tuesday, May 7, to compete against each other in the Royal Navy Golf Cup Final. Every year the Royal Navy holds a one-day golf competition where its ships, submarines, squadrons and establishments compete with each other for the highly coveted 'Navy Cup' trophy.

Historically, this competition has been played near either Plymouth or Portsmouth but this year it was held at St Andrews, the aim being to raise the profile and overall quality of the event. What better way of doing that than playing at the home of golf?

In testing competitions, 104 sailors and marines played 36 holes on the New and Jubilee courses and thoroughly enjoyed this privileged experience. The eventual team winners were 40 CDO Royal Marines, based in Plymouth and winner of the individual competition was Lt Andy Cobbold RN from RNAS Yeovilton in Somerset.

Captain Craig Mearns, who is based at Faslane and is the Chair of the Royal Navy Golf Association said: "I am delighted that we managed to bring the Navy Cup north to St Andrews. It has been an outstanding success and we are indebted to the St Andrews Links Trust for their support in making this event happen."

He continued: "The courses were in excellent condition and our people were looked after magnificently. I want to encourage more of our people to take up golf and develop their skills and I hope that holding the Navy Cup at such a prestigious venue will help to achieve that. For those that already play, most of whom have never played at St Andrews, this has been a memorable experience."



Royal Navy Sailors who flocked to St Andrews for the Royal Navy Golf Cup Final

QinetiQ support at Formidable Shield

From: Ministry of Defence, Defence Equipment and Support, and The Rt Hon Gavin Williamson CBE MP (Published 5 April 2019)

This funding injection is part of the existing £5.6bn deal with defence supplier QinetiQ, which trials and tests everything from missile systems to underwater sensors and night vision capabilities.

The funding will support the employment of around 1,800 people across 16 MOD-owned testing sites through the Long Term Partnering Agreement (LTPA) with QinetiQ.

Defence Secretary Gavin Williamson said: "Ensuring our cutting-edge equipment is tried and tested before it is sent to the frontline is crucial to our military's capability."

"This £1.3bn investment will not only guarantee our Armed Forces' have the reliable, state-of-the-art weaponry they need, but will also support jobs across the nation."

The £1.3bn boost, which will also deliver £85m of savings and modernises the contract mechanics, will ensure essential test and evaluation services for many of the MOD's high-profile programmes continue to be supported until March 2028.

Those programmes include the Queen Elizabeth aircraft carriers and the Dreadnought submarines.

As well as the funding injection, QinetiQ and the MOD have agreed a portfolio of investments, worth £190m, to improve capability resilience and to ensure that the Test and Evaluation sites around the country, including MOD Pendine in Wales, MOD British Underwater Test and Evaluation Centre (BUTEC) at Kyle of Lochalsh in Scotland, and MOD Boscombe Down in England, remain fully operational.

The latest £1.3bn commitment will also cover the running costs of training services, equipment and the operational staff that support the test and evaluation ranges.

Chief Executive Officer at DE&S, Sir Simon Bollom said: "This latest contract amendment under the LTPA demonstrates how we are continuing to support our key defence programmes by investing in essential test and evaluation services."

"This is another example of how DE&S is working collaboratively with industry and the Front Line Commands to ensure our Armed Forces have the best value equipment and training to meet the operational demand."

QinetiQ Chief Executive, Steve Wadey said: "Today's agreement enhances our contribution to the safety and operational effectiveness of UK armed forces in an era when threats to our security remain acute and are changing rapidly."

"In line with our strategy, we are introducing innovative ways of working and making selective investments to reinforce the UK's position as a

world-leader in the generation and assurance of military capability. This will enable us to support the MOD's future programmes and win more work from both UK and international customers."

USS OLYMPIA & HMS TALENT in Gibraltar 31st May 2019



The last time there were 2 SSNs from UK and USA together was in 2014 when HMS TALENT and USS ANNAPOLIS coincided

HMS SCEPTRE

For all those who served on SCEPTRE during build and first commission the then CO, Commander Rob Forsyth, has written a good dit in the latest British Legion magazine. Basically, it's a short resume on his Naval career and, also as the now, chairman of the Deddington branch of the Royal British Legion

Russian Deep-Water Research Submarine 'Explosion' leaves 14 Dead

From BBC Report 2nd July 2019 & Telegraph Report 3rd July 2019

A fire aboard a Russian Navy research submersible has killed 14 crew members, Russian media reports say. The submarine was the Type AS-12 LOSHARIK. The crew members were suffocated by fumes when the vessel caught fire whilst carrying out a seabed survey on Monday, the defence ministry said. It is believed that a further 5 crew members are in hospital.

The LOSHARIK is based at Severomorsk, in the Murmansk region, which is the main base of the Northern Fleet. An investigation into the incident has begun under the Commander-in-Chief of the Navy, the ministry added. A submersible is an underwater vessel which differs from a submarine in that it usually requires a support ship on the surface whilst a submarine is fully autonomous.

The Kursk submarine, which was destroyed by an explosion in the Barents Sea in August 2000 with the loss of its crew of 118, also belonged to the Northern Fleet.

President Vladimir Putin is reported as saying this was a major loss for the Armed Services and that those who died were highly professional.

THE BARROW IN FURNESS ARMED FORCES FLAG RAISING PARADE 22nd JUNE 2019

Everything went off fine this year. The Town Hall was open on time and all our prerequisites were in place. Our guests and VIPs were: Air Commodore Peter Smith (Deputy Lord Lieutenant of Cumbria), Councillor Kevin Hamilton (Mayor of Barrow), Councillor Markley (Deputy Leader Cumbria County Council), Mr John Woodcock (MP for Barrow and Furness), Captain Scott Bower, RN (Commanding Officer of HMS ANSON, Mr Russ Watson (Engineering Director of BAE), Air Commodore Steve Molloy and Councillors Helen Wall and Anita Husband (Armed Forces Champions for Cumbria and Barrow respectively).

Those participating in the Parade included Members of the Crews of HMS AUDACIOUS and HMS ANSON, TS SOVEREIGN Sea Cadets and their Band, Royal Air Force Cadets, Army Training Corps Cadets, Veterans from the Barrow in Furness Submariners Association, the Royal Air Force Association, the Duke of Lancaster Regimental Association, the Royal British Legion and the 'Riders Branch'.

The Parade was announced by the Town Crier (Mr Alan Brown) and the Parade was 'Fallen In' in the Town Hall Square after a Trumpet Call. The Parade Marshall was Mr Tony Eglin assisted by Mr Eddie Grayless (Deputy Parade Marshall). Half of the Parade was inspected by Air Commodore Peter Smith and Councillor Kevin Hamilton and half by Captain Bower and Councillor Markley. The Armed Forces Day Flag was presented to the Mayor by a Sea Cadet escorted by an Army Cadet and an RAF Cadet. The Service of Dedication and Prayers was led by the Reverend Andy Batchelor (the Honorary Chaplain to the Barrow Submariners Association) who also blessed the Armed Forces Day Flag - which was then hoisted from the Town Hall 2nd Floor Balcony Flagpole.

A one minute Silence was marked by the Last Post and Reveille (played by Trumpeter Mr Dave Dryden) followed by the Lament 'Flowers of the Forest' (played by Piper Mr Mike Ramsay). The 'Exhortation' and the 'Kohima' Epitaph was given by the President of the Barrow in Furness Submariners Association - Mr Alan Hoskins. This was followed by the National Anthem and 'Three Cheers for Her Majesty the Queen'.

There was a good crowd at the Town Hall to watch the parade. All the timings seemed to work well and adding in the Reveille and the National Anthem this year padded out the time almost precisely. The March to the Royal British Legion started exactly at 1150 and the Sea Cadet Band kept very good time and the Parade up Abbey Road was in step all the way to the Legion - no stopping this year. A very good crowd on both sides of Abbey Road clapped the parade nearly all the way. At the Legion all went fine, the Standard were 'Laid Up' on the Stage and the Deputy Lord Lieutenant made a good speech congratulating the Cadets and other participants for a very smart turn out. Refreshments were appreciated by all.

The Event got some publicity on Radio Cumbria before the Parade and the Evening Mail had some pictures of the Parade on Tuesday 25th June. Mike Vallence from BAE provided a CD of many photos of the Parade - which will be distributed to the participating organisations. Thanks are due to the Tri-Services Committee, Huddlehub (Elaine Roberts and John McIntosh) for assistance with Stewarding the Parade and provision of printing services. All in all, a very successful Parade after a lot of hard work from the organising committee and the many participants. Next year we just need to do the same!



The Rev. Andy Batchelor (Hon Chaplain to Barrow Submariners Association) leads the Service at the Armed Forces Flag Raising Parade



Captain Bower inspects the TS SOVEREIGN Sea Cadet Juniors



Air Commodore Peter Smith (Her Majesty's Deputy Lord Lieutenant for Cumbria) chats to SA Vice President Dave Barlow



Captain Bower CO HMS ANSON



**Mark Butchart (HMS AUDACIOUS -
Serving Rep to SA National Committee)**

The Miracle Year of HMS/M SLEUTH

Story supplied by John Allibone

How could SLEUTH win the Gunnery Efficiency Trophy when it did not have a gun? How could SLEUTH knock a barrage balloon out of the sky whilst proceeding at 120 feet and towing a submerged X-craft? SLEUTH was a streamlined S class Stripped of deck gun with a very small bridge structure. One search periscope, no radar no snort. Simply the bare essentials to provide a small fast target boat for A/S training. The forward hydroplanes were permanently turned out and secured in that position. The whole design was for

day running only. Out at 0800 in at 1700-1800 Monday to Friday. Below, the torpedo tubes had been blanked off and torpedo racks removed from the fore ends which meant that the fore ends provided comfortable accommodation - permanent wooden bunks.

Late January maybe early February, SLEUTH left Rosyth dockyard after a major refit - Lieutenant Roake RN in command. We were to proceed on passage to the depot ship MONTCLARE in Rothesay, Isle of Bute. Before we had left the Firth of Forth we had to anchor due to thick fog - for how long I can't remember. Eventually we weighed and proceeded. No sooner out of the Firth of Forth we were hit by a westerly gale. As we were heading west it was clear that we were in for a rough passage. How rough? We were to head west through the Pentland Firth. After a day or two, wind now force 12+, it was clear that SLEUTH could not make headway against the wind and strong westerly current. We must head north to pass beyond Orkney. How many hours were we 'beam on' to these mountainous seas? It seemed a very long time. Remember, no radar. Navigating officer had no sight of land no star or sun sights. As the aerials were intact, radio could be transmitted and received, he may have the benefit of RDF.

The starboard forward hydroplane was now flapping like a broken wing and looked as though it could come adrift at any moment. The port side "permanent" wooden bunks were now in the horizontal position. Now heading west again shipping them green was very much an understatement. On bridge lookout I was very much aware of the hydroplane now flapping crazily and banging against the pressure hull. The noise in fore ends was horrendous. I remember the Officer of Watch saying to me "if you see the hydroplane come adrift take cover behind the periscope standard" My thoughts were "I will be in control room before you"!

After four or five days we were in calmer waters and in sight of the Isle of Bute and soon moored safely alongside the depot ship with loads of people looking down to see this dented and battered slippery S boat. After a short period of repairs and maintenance by depot ship and our own engineers, the boat was back to normal. We now had to set about our purpose for being there. Fresh from dockyard hands meant the usual sea trials and tests to be followed by working up and Cdr S/Ms inspection.

Duly completed, we were now ready to proceed south to Portland, home of the 2nd S/M squadron, to take up our duties of day running A/S training duties. Easter leave period came and went and we settled down to what is for submariners a very comfortable lifestyle. During the summer months

there were cricket matches against other boats followed by visits to The Jolly Sailor in Portland. Plenty of shore leave in Weymouth, but the main event was the Gunnery Efficiency Trophy. Traditionally, a competition between boats of the squadron to establish the fastest, and most accurate surface gun action. The gun layer would view the target through the periscope then take his place in the gun tower hatch. The captain would order the boat down a further 30 feet. All main ballast would be blown for the fastest surface on an even keel possible. At twenty feet a whistle would be blown, and the gun layer would open the hatch, load the first round and take his place to lay the gun. As soon as he could see that the trainer was on target he would fire the first round with loaders reloading as quickly as they could to continue rapid fire.

SLEUTH entered this competition and won it. SLEUTH did not have a gun. It could not borrow one nor could it supply a gun crew to another boat. There would be no point. No boats in the squadron had a gun. The competition took place on the rifle and small arms ranges. The barrage balloon? The frigate UNDAUNTED was experimenting with long range sonar. It needed to know the position of the target boat to direct the sonar onto the bearing. The balloon was moored to the after bollards of the target boat and would fly about thirty to forty feet above the surface and UNDAUNTED could establish the boats position by radar. SLEUTH was the target boat on this occasion and was proceeding on a steady course towing an X-craft to Devonport for Navy Days.

Mid-afternoon a fire broke out in number two battery. This meant an emergency surface. "Fire red grenades from forward and after SSEs." One of these grenades hit the balloon. As it was moored to the after bollards it would have been most likely from the after ends so the Stokers get the blame. Fire out. We now continue on course for Devonport on the surface and arrive without further incident. Navy days over, SLEUTH now goes to Portsmouth for a six monthly Docking. I go to Pompey barracks for a killicks course. Then to DOLPHIN to await a draft to 4th S/M squadron Australia. Two weeks summer leave, then a week or so of pushing a broom around the fort. Two weeks embarkation leave.

Soon after return, off to Aussie by the P&O liner ARCAIA Another four weeks of "paid leave" aboard a sea going hotel. I disembarked ARCADIA in Melbourne to join THOROUGH which was visiting Melbourne for the Olympic Games.

Life is tough in boats.

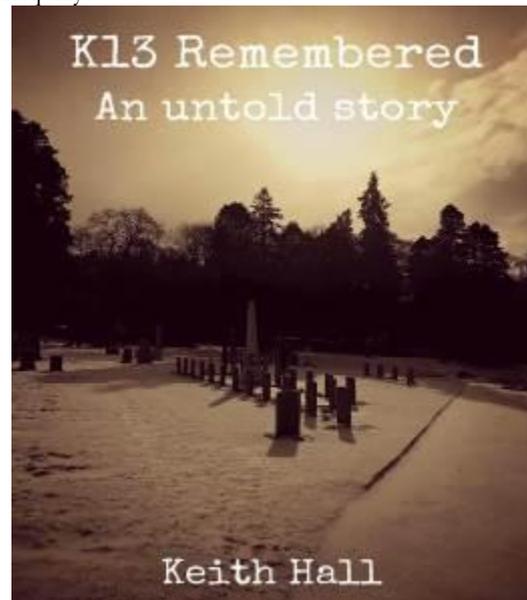
BOOKS

A New Book about K13

www.submarinersassociation.co.uk

This is an untold story of the Royal Navy Submarine K13, which flooded and sank in Gareloch in the early afternoon of Monday 29th January 1917 shortly after her final acceptance trial dive. Of the eighty men on board, thirty-two people lost their lives.

The Board of Inquiry laid the blame for this accident solely on Lt Arthur Lane, the vessel's engineer. Triggered by the seemingly nonchalant way the Board of Inquiry came to its verdict, supported by his personal conclusions after thorough examinations of detailed archived records, personal accounts and in-depth analysis of the evidence, Keith Hall was determined to write this book questioning the legitimacy and accuracy of the Board of Inquiry.



This book aims to provide the reader with an alternative account. It also aims to clear Lt Arthur Lane's name and reputation. Something he wasn't able to do himself as he tragically lost his life with the sinking of the submarine.

Available from Amazon Kindle in 'e book' and hardback from mid-May 2019

HMS THETIS - The Barrow Connections

(by Barrie Downer)

Eighty years ago - on Thursday 1st June 1939 - the brand new submarine HMS THETIS (Lieutenant Commander Guy H Bolus) sailed from the Birkenhead Yard of Cammell Laird into Liverpool Bay to carry out diving trials. In addition to the normal crew of fifty five Officers and Ratings there were a large number of passengers - both uniformed personnel and civilians - on board for Trials purposes. This took the total number of personnel onboard the Submarine up to one hundred and three. During the dive difficulties were encountered with the trim of the submarine. During the investigations into why the Submarine could not dive properly it was decided to determine the

condition of the Tanks and Torpedo Tubes. In this process the Rear Doors of all Tubes including No. 5 Tube were opened in turn. Unknown to the crew the Bow Cap of No. 5 Tube was already open to sea and the Tube was full of water.

As the Rear Door was opened water rushed in and the forward compartments of the submarine were flooded. The Submarine inevitably ended up on the bottom and was unable to resurface. Eventually four of the trapped personnel were able to make an escape but, despite all the desperate efforts of both those remaining in the Submarine and all those on the surface in ships, aircraft and rescue vessels, the remaining ninety nine of the crew and passengers died in the accident.

As this was a Cammell Laird built Submarine it might seem strange that there was a Barrow connection however, there was. There were four passengers on the Submarine that day all of whom had links to Barrow and the Vickers Yard and the Commanding Officer's wife was also from the area.

The Commanding Officer Guy Bolus who had previously 'stood by' the Barrow built submarine HMS OSIRIS was married to Sybil Bolus (nee Poole). Sybil was the daughter of Mr and Mrs Frederick W Poole of Bankfield House, Urswick. Frederick Poole was the Furness Coroner. Guy and Sybil Bolus had one son, Martyn, who was nine years old at the time of the accident.

After the Submarine has been salvaged and the casualties removed Guy Bolus was buried at sea on 27th September 1939 - his wife did not attend the burial, but his sister was present.

The three local men lost were:-

Thomas Ankers

Thomas Ankers was born in Crewe in Cheshire in 1883 and he was the son of Joseph & Mary Ankers and, in 1891 the family were living at 9, Peter Street, Coppenhall in Cheshire. By 1901 the family had moved to 60, Ludford Street, Coppenhall and Thomas was listed as eighteen year old railway engine fitter. In the 1911 Census twenty eight year old Thomas Ankers (recorded as a shipyard worker) is reported to be living at 24, Kent Street, Barrow in Furness, Lancashire with his twenty eight year old wife, Martha Hannah Ankers and two year old son, Hubert. Thomas is now described as a Marine Fitter. On 19th May 1924 Thomas Ankers of 19, Derby Street, Barrow in Furness arrived in Montreal in Canada in the SS MEGANTIC and he stated he was employed by Vickers and that the Vickers Company had paid his passage. He returned home in the SS EMPRESS OF SCOTLAND arriving in Southampton on 25th August 1926 listed as an engineer living at 19, Derby Street, Barrow in Furness. Thomas Ankers was on board the Submarine HMS THETIS when it sank in Liverpool Bay on 1st June 1939. He had travelled to

Birkenhead to join the Submarine on Tuesday 30th May. His date of death was recorded as 3rd June 1939. Thomas Ankers was buried privately in the Churchyard at Rampside near Barrow in Furness.

Horace Cragg.

Horace Cragg was born on Walney Island, Barrow in Furness, Lancashire in 1893 and he was the son of Fred Herbert Cragg and his wife, Margaret Cragg (nee Thompson). There was a brother, also Fred Herbert Cragg, who was born in 1899. At the time of the 1901 Census the family were living at 23, Oubas Hill, Ulverston and, at the time of the 1911 Census Horace was listed as an Apprentice Marine Fitter lodging with his uncle, Albert Thompson, at the Cottage, Abbey Road, Barrow in Furness. Horace was married to Sarah Florence Cragg (nee Macklin) in Ulverston in July 1918. An Engineering Draughtsman employee of Vickers Armstrong Shipbuilders at the time of his death in HMS THETIS his Next of Kin address was at Broadgate, Victoria Road, Ulverston, Lancashire. He was on board HMS THETIS when it sank in Liverpool Bay on 1st June 1939 and his date of death was listed as 3rd June 1939. The Lancashire Evening Post of 29th September 1939 reported that his body had been recovered from the Submarine and he was buried privately in Ulverston on 2nd October 1939

James Young

James Young born in Riccarton in Ayrshire in 1898 and he was the son of Hugh Dale Young. At the time of the 1911 Census the Young family were living at No. 7A, Schooner Street on Barrow Island. James was the eldest son (and third child) of the five children of Hugh Dale Young. James Young was living at No. 6B Schooner Street on Barrow Island when he was married to 30 year old Florence Sparrow – daughter of John Samuel Sparrow and Alice Sparrow (nee Brazier). Florence, who was born at 10, Ironworks Road, Barrow in Furness on 13th February 1898) was a draper's shop assistant of 42, Harrison Street, Barrow in Furness and the wedding took place at the Baptist Chapel in Abbey Road on 10th March 1928. James & Florence Young were the parents of Joan B Young (born 3rd December 1928) and Hugh Dale Young (born 4th March 1931) who were nine and eight years old respectively at the time of their father's death.. James Young was a Foreman Fitter at Vickers Armstrong Ltd at the Barrow in Furness Shipyard. He was on board HMS THETIS when it sank in Liverpool Bay on 1st June 1939. At the time James Young's death, the family lived at 8, Falmouth Street on Walney Island, Barrow. James Young was buried privately by his family

A Report in The North-Western Daily Mail of Thursday 8th June 1939 stated, on Page 9, that:

'The spacious church of St. John's, Barrow Island, was filled to overflowing, seats having been placed in the aisles and down the side walls of the building, for the memorial service yesterday afternoon for those who lost their lives in the THETIS disaster.

Her commander, Lieut-Commander G H Bolus was the son in law of the Furness Coroner, Mr F W Poole, and also well known by many of those who attended the service were the three employees of Messrs. Vickers Armstrong who were onboard.

Sir Charles Craven, chairman and managing director of Vickers Armstrong Ltd, was unable to attend as he was representing the Company at the Memorial Service at St. Martin's-in-the-Field in London.

Naval uniforms were much in evidence mingling with the sombre dress of the officials and the overalls of the workmen, but however great the diversity of the outward appearance all hearts were as one in the thought of what had drawn them together.

The service was conducted by the Rev. C Williams, Vicar of Walney assisted by the Rev. J A Frankland, Curate of St. Matthew's, and the Rev. A T Bartlett, Curate of St. Luke's.'

On Page 10 of the Newspaper there were four photographs (see below) showing ceremonies at the Cenotaph in Barrow Park in which were shown Naval Officers and members of the public at the Cenotaph, Commander Stirling Hamilton (the Commanding Officer) and Chief Petty Officer Herbert Hammond (the Coxswain) of submarine HMS THISTLE about to lay a wreath, Mr J Callendar, director and general manager of Vickers Armstrong Ltd about to lay a wreath and Navy League Sea Cadets sounding 'The Last Post'



Engineer Captain Stanley Jackson

One other casualty lost in HMS THETIS who also had connections to the Barrow Shipyard was Stanley Jackson. As Engineer Captain Stanley Jackson, who was the Senior Engineering Officer on the staff of the Rear Admiral (Submarines) at Gosport, was onboard to oversee Acceptance.

For the four years until 1935 he had been the Engineering Overseer for the Admiralty at the Vickers Armstrong works at Barrow.



A postscript, and a later, Barrow connection to HMS THETIS relates to the WWII service of HMS THUNDERBOLT - which was the name given to THETIS after she had been salvaged and refitted. When HMS THUNDERBOLT was lost in the Mediterranean on 14th March 1943 one of the casualties was the husband of a girl from Walney Island. He was:

Petty Officer Charles Stanley Elliott O/N D/JX 139568

Charles Elliott was born in Newport in Monmouthshire on 11th August 1917 and he was the twenty-five year old son of Mr. Stanley Sayer Elliott and Mrs. Fanny Elsie Elliott. Charles Elliott joined the Royal Navy and was given the Official Number D/JX 139586. The date of his draft to Submarine HMS THUNDERBOLT is not yet established. HMS THUNDERBOLT was sunk on 14th March 1943 off Sicily by the Italian corvette CICOONA, which had detected the Submarine and attacked with depth charges. The Submarine was lost with all hands and HMS THUNDERBOLT sank in some 5,000 feet of water. Charles Elliott was the husband of Mrs. Robina Elliott of Walney Island, Barrow in Furness, Lancashire (now Cumbria). He is commemorated on the Plymouth Naval War Memorial on Panel No. 78 Column No. 2 and on the Cenotaph in Victoria Park, Barrow in Furness.

On Sunday 9th June 2019 Barrow Submariners attended a Memorial Service in St John's Church on Barrow Island to mark the 80th Anniversary of the loss of HMS THETIS - not a Barrow built Boat however, but particularly to remember the three

Vickers Shipyard workers lost in the accident – one from Barrow Island, one from Walney Island and one from Ulverston. This was the first Branch Event for the Barrow Branch new Honorary Branch Chaplain – the Rev. Andy Batchelor! Coincidentally, Sunday 9th June was also the exact one hundredth anniversary to the day of the loss (with all hands) of Submarine L55 in the Baltic in 1919 during the so called Russian Intervention.

Holyhead Memorial Service for those lost aboard THETIS and THUNDERBOLT

A Service in memory of those who lost their lives in the THETIS submarine disaster was held in Holyhead.

A ceremony was held at 2pm, at the Maeshyfyd Cemetery, on Saturday, May 25th 2019. HMS THETIS (N25) was a Group 1 T-class submarine which sank during trials in Liverpool Bay, on June 1, 1939. Of the 99 people who died, 44 people were buried in a mass grave at Maeshyfyd.

The memorial also remembers those lost aboard HMS THUNDERBOLT. After the THETIS sinking, it was later raised, refurbished and renamed the THUNDERBOLT. It later sank in the Mediterranean, on March 14, 1943.

The memorial was organised by Holyhead Maritime Museum and Holyhead Town Council as part of the Armed Forces Day at Holyhead.

Barry Hillier of the Maritime Museum said: "As the Freedom of Anglesey is being granted to the Submariners branch of the Royal Navy it is apt that they be offered an opportunity to pay their respects."



HMS THETIS/THUNDERBOLT

SUBMARINERS ASSOCIATION SLOPS

Slops - A Cash Clothing Store, where items of slops can be purchased from what used to be the traditional seaman's slop chest. The Association Slops link shows items that can be purchased from Frank Pas Esq, a percentage of the proceeds of which goes back into the Submariners Association.

Please note that 'customisable' items ordered will need to go to our suppliers to be prepared to your tailored requirements before being shipped and may

take longer to deliver. Orders with multiple Items may be shipped separately.

No orders will be place with our external suppliers or shipped until payment has been confirmed.

All UK Postage is Free, but there is a fixed £5 fee for overseas orders.

For all communication with regards anything to do with the Slops please email: slops@submarinersassociation.co.uk

ON THE SCROUNGE AGAIN!

Do you remember the old SOCA NEWS – the predecessor Newsletter to IN DEPTH? It became SUBMARINERS NEWS in September 1999.

Also, do you remember the typed 'Gus' Britton News Sheets which also came with the SOCA/SUBMARINERS NEWS and which were sent out to Branch Secretaries. I have recently been digitising all the 'Gus' Britton 'Fore-Ends Newsletters' and other dits in my records.

As well as reminding me what a wealth of information was contained in Gus's dits about Submarines and Submariners – many of whom are no longer with us - the exercise of reading the Gus's very quirky and often very outspoken stories also reminded me about how important it is to capture memories, information, records and artefacts before they are lost forever.

The following request appeared in Gus's 'Fore-Ends Newsletter' dated 25th December 1995:

"The Director (of the Submarine Museum – then Jeff Tall) is very keen to have written and taped accounts of your life in submarines during any period but especially the last war sailors who are getting a bit thin on the ground. Take your time and write down the date of writing, your date of birth, where born, family life, joining the Andrew, joining submarines and then as much detail as possible about your life in boats. Take your time over it and you'll find that the memories start coming back once you start. If you record your story start off with the date. Names, places, people etc. with as much detail as possible. What chefs thought of cooking, what they cooked, what they cooked on, gunlayers - what they had in the magazine, colour coding of ammunition, coxswains - victualling and medical problems, engine room staff - all that technical stuff. What you thought of submarine life, officers and crew, every little facet of life undersea. Any Submariner - officers or rating - reading this are welcome to contribute. I know that there was life aft of the forward torpedo compartment water-tight door so let's hear about it. Names are very important. Also add

what ships you were on before and after submarine service.'

These days the request should probably be slightly reworded – there might possibly be a few gunlayers left, but there are now a lot less Diesel submariners around than there used to be, some of our early Nuclear submariners are slipping away, The Coxswain no longer looks after medical issues and, perhaps, we should substitute 'Aft of the Missile Compartment' or the 'Reactor Compartment' bulkhead for the 'Forward Torpedo Compartment Water Tight Door' but the general intention is still the same – get the information recorded - although I wouldn't want anyone to compromise their signature on the Official Secrets Act declaration!

If you can spare the time to record your details, thoughts, memories and any anecdotes of your time in Submarines – do it now – before the memories fade! You can send your stories to me, Barrie Downer - and I will pass them on to the Submarine Museum – now part of the National Museums of the Royal Navy.

STILL LOOKING FOR SUBMARINE COMMISSIONING CREW LISTS

I must thank all of those who have sent me Crew Lists – they are still arriving in dribs & drabs but are all very useful. Most recently I have been sent the HMS TIRELESS list (21st March 1955 at Portsmouth) and have seen an ASTUTE Commissioning Brochure, the VALIANT Re-dedication list for February 1980 and the VALIANT Decommissioning List for 1994!

I am still looking for First Commission Crew Lists as follows:

PORPOISE, RORQUAL, GRAMPUS,
CACHALOT, WALRUS, OBERON, ONYX,
ORPHEUS, ODIN, OTUS & UNICORN

Also looking for copies of Crew Lists for subsequent Commissions of any 'O' Class, 'P' Class or Nuclear Boat. Crew Lists for any Commissioning or

Decommissioning for any Diesel 'A', 'S' or 'T' Class Boat refitting in in home dockyards or in Malta, Singapore or Sydney are also required. Have a look through your records and 'Ditty Boxes' and see what you can find. You can contact me by E Mail, Snail Mail or Telephone.

Thanks, Barrie Downer, Editor 'In Depth'

MYSTERY ITEM

Not many suggestions have been received about the mystery object shown below!

The original query came from Gus Mellon in Australia but, apart from it being on display in a Queensland Museum and attributed to Submarine HMAS J5 nothing else is known. HMAS J5 was one of the six J Class Submarines 'gifted' to the Royal Australian Navy

No conclusive answers have been received yet as to its manufacturer, inventor, origin or use but several suggestions have been made along the lines of it being an attack instrument – its definite usage is still unknown!

Any further suggestions will be gratefully received – but no prizes!



SUBMARINE K.26 - THE STEAM SUBMARINE

By Jack Philip (Nick) Nichols O/N J98553 (Continued from In Depth No.64)

HARRY BARTON KEEPS HIS HEAD - I NEARLY LOSE MINE - MUTUAL CONGRATULATIONS - BERT APPROVES

Ah! Gibraltar, in the piping days of peace, Hungarian bands, Coffee Royals for those that like them, oranges and figs and a trip to see the apes and Main Street's gaudy rubbish. After that a bit of fishing off the breakwater, and the serious business of the Home and Med fleets playing at war.

Two days before the battleships started to nudge their way out of Gibraltar harbour we lit up our boilers to sail. There is something about a 'K' Class submarine that is unique. Due to short funnels, peculiar oil heaters and odd design of fans a 'K' Class submarine raises a lot of smoke before it raises any steam. All engineers of 'K' Class subs have received signals in much the same vein. If you had happened to have been on the neutral ground at Gibraltar on our sailing day you could have taken an untouched photo of the Rock with an ascending pall of smoke looking like an immense volcano. Engineer Lt. Asbury was up between the funnels, Chief E.R.A. Telford was there too, and for good measure E.R.A. Webb. They all appeared to be praying, but the big black billows continued. Every now and again the Junior Signalman brought a copy of a signal made by some immaculate battleship or cruiser for the Engineer Officer to read. He managed a sad smile and after a long wait there was an

end to the pillar of smoke by day. The oil was hot, the vaporization good, the sprayers roared, and the safety valves teetered on their seatings. The Engineer 'pencilled' possible replies to the complaints about smuts and smoke and sent them to the Captain for approval.

Commander Garnons-Williams simplified things. He gave Yeoman Whalley a signal for the flagships repeated to lesser ships. "Regret inconvenience - excessive smoke is feature of 'K' class submarines starting from cold. See Signal Logs from 1916 onwards." Then he rang down for steam for 14 knots, weaving out astern on engines, turning smartly at the end of the detached mole and heading out to sea.

Down in the Motor Room Bertram and I listened to the rumbling screws turned by steam turbines and laughed. We had a full battery and, as we worked up to 14 knots, I stood and made the auxiliary dynamo breaker which put a special dynamo on to run the load of the boat. It was geared off the engine shaft and our battery remained up.

The 'L' Class submarines staggered out of Gibraltar using first their motors and then starting their diesels. Their batteries were slightly discharged already! We steamed, or dieselled, in single line ahead ready to open secret envelope A, B, or C on the morrow, when ordered by wireless to do so. In the Wireless Office Liddiatt and Lemaire, the two Tels. on watch listened, but were not allowed to reply. Any transmission could be found by D/F methods and you cheat in manoeuvres as in war. Down in the Motor Room it was warming up. Single asked permission to open the Motor Room hatch. The order came through the voice pipe: "You may open and stand by Motor Room hatch".

The breeze of our making sucked warm air up the hatch, the sea was calm. Bertram sang as he cleaned the Field Rheostat handles. "Around the Marble Arch, around the Marble Arch, what a glorious sight to see, all the pick of the infantry, around the Marble Arch, they know how to get round the girls, round the Marble Arch".

I leaned my back on a thick steel stanchion, then I thought about Bertram there burnishing away like mad. I got out some rags and rubbed up my side a bit - the starboard main motor panel with its brass and copper, and 'white' metal.

The POLTO appeared through the oval door. He got as near to a smile as he ever did. "D'you two see me coming?" he asked. He too, took up a bit of old rag and shone up one of the cabin fans that used to play on us when it got really hot. Then Bud Fisher came along from where he had been-sorting out a badly working phone in the Control Room. Bud laughed and started to clean the Port Telegraph laughing as he did so. He was just rubbing away at it when a tall figure filled the fore door of the Motor Room. It was the Captain. All four of us stood to attention as if we had been found out in some crime. The Captain laughed. We stood still for a while POLTO said. "Able Seaman Carter, Sir, the new L.T.O. Vice Snaesby." The Captain laughed, he had the bronzed face of a real seaman, he said. "Too bad you can't play football Carter, but in the summer, you can have a go at water-polo." I could see the grapevine worked both ways. The Captain went on, he was seeing for himself how much the hydraulically worked main vents leaked by sticking a finger in the Save-all.

A day or two later before the dummy attacks started the hatch above the Turbine Room was open. A stoker, Harry Barton by name, was re-stowing the petrol cans. As we had an outboard motor for our skiff, we had to have petrol in cans, and it must not be stowed inside the pressure hull. If your cans were full right up, you could string them together with rope and hang them round the support for the after-gun pedestal. When the boat dived all was well. The pressure came on the cans the petrol inside took the weight. But if you had empty cans, they would of course flatten out if you left them empty and they would be in the way and still dangerous inside the hull. So. The used cans were filled with salt-water labelled with a bit of rag and tied to the pedestal support. Then a dive did not matter, salt-water kept the cans in shape as well as petrol. Barton was busy tying the cans up in a loose heap round the base of the gun pedestal and up the hatch came another stoker, it was very noisy and he shouted, "Harry, we've got to shut the hatch, we can expect a crash dive from now on, there's planes about." Harry left him to finish off the stringing and slipped down below for a quick look at his diving station on the midships main ballast vents. Bud Fisher stood at the port main motor switchboard and I was just for'd of my station at the starboard main motors, then the telegraphs rang, the klaxons went "Krap! - "Krap!" and the engine clutches came out "Krump" "Krump" under hydraulic power. "Dive" appeared on the telegraphy, the order came "Full ahead", both main motors group up. I clonked my field switch in, I heard Fisher's switch follow, watching the ammeter I judged the moment to throw the big single pole switches on my starter, making just the right pauses to avoid an overload blowing a fuse

"D'louk-d, lonk-d,lonk-d lonk-d, d'louk," Five massive switch blades went home, with the same noises duplicated on Fisher's board. The motor brushes screeched and then all four big motors too up the load of eight thousand amperes. The for'd door of the motor room was open. I stood back from my switch board and was horrified by what I saw. A wide sheet of water was pouring in through the Turbine Room hatch and a man was in the middle of the ladder hanging on and being washed first one way and then the other. Once or twice his head came clear of the sheet of water, we were going forward and down, the pressure of the sea increasing. Owing to his position at the Port Switchboard Fisher could see nothing. I ran to the watertight door and the situation looked serious, the water probably looked more solid than it was, what had happened was that the hatch had been

dropped on a petrol can and the hatch was propped partly open. Whilst Barton swung on the can trying to free it, I ran back into the Motor Room. "Bud stop your bloody motor" I wrenched my five switches out, "clank, clank, clank, clank, clank." Bud never said a word, out came his as fast, then he came over and looked at the water streaming down.

I went to the Control Room voice-pipe and shouted "Motor Room Control Room" as I did so I heard a thud and the water magically stopped, the struggling stoker had wrenched the petrol can out assisted by the inflow and the hatch was down. He screwed the clips tight and Bud and I ran back to our switchboards. We started up again and worked up to full speed. The voice pipe gurgled, someone was calling "Motor Room, Motor Room." Bud steadied his motors on full speed, group-up and answered the voice pipe which had started to call. "Wake up in the Motor Room". Bud was not a great speaker, he was agreeable but terse, he just said, "Control Room, please send an Officer aft to the Motor Room." In a minute a Sub Lieutenant appeared passing poor wet Barton with a puzzled stare, as we dropped down to half speed group-up and then to group down half speed both:

The Officer awaited out story. Harry Barton found a towel and, as he rubbed himself down, he reported what had happened in one of his moments of clear sight when in the wide stream of water, he had seen me apparently unperturbed standing in the oval of the watertight door and he was joyfully pointing this out to Sub. Lieut. Nicolay, how well I had kept my head, my complete command of the situation.

I was non-plussed, the event had found me unprepared, I didn't really know why I had stopped the motors, I was very lucky in my first emergency, and did not know what to say. In answer to the Sub Lieutenant I said I thought it best to stop both. He made notes and went back to the Control Room. A Stoker brought Harry Barton a dry shift and we made a dummy torpedo attack on one of the Home Fleet Battle Ships and picked up our four practice torpedoes. As I hove round the hand-winch picking a torpedo out of the water, I noted a great warmth of friendliness in the people around. The First Lieut. addressed me by name "Pick that hook rope up, Carter" and "Hang it on the backbone, Carter." I felt a fraud; I had as I say been non-plussed. Stokers who had looked upon me as just another 'sand-scratcher', now called me "Nick!" I accidentally heard a Scots stoker say with authority, "You can take it from Harry Barton - he saved the boat, your worthless life and mine, I say good old Nick Carter, I'm no ready to die yet." I crept away; I knew I was no hero. I reckon another half minute and I could have as easily run for!d into the Control Room in a panic.

After a bit of discussion I could easily see that the hatch had been almost shut, and the sheet of water though wide, not so very thick, and most people reckoned if we had gone deep straight away the pressure would have cleared the can and shut the hatch. But nevertheless, Barton and Carter if they had wanted to, could have borrowed money in the boat, even from the Tiffies. Bertram was my tower of strength he just said, "Don't worry Nick, you did the right thing, never mind whether it was by instinct of genius, I'm glad my wife's not a widow you know."

I had only one misgiving, when I was at Shotley, K.5 had made the diving signal in the Bay of Biscay and dived, never to be heard of again.

To Be Continued in In Depth Issue No. 66.

Dr GEORGE HOWARD FORSYTH & SIR LEN REDSHAW – ADEB – EXPLORER & EXCALIBUR

An extract from 'Vickers Master Ship Builder Sir Leonard Redshaw' by Leslie M Shore - From Page 41

The year 1946 also saw the advent at Vickers Barrow of a revolution concerning engineering research and development. Vickers-Armstrong appointed Mr G. H. Forsyth as Manager of our Research Department, at Barrow, on Tuesday, the 15th October, and he reported directly to the General Manager, Hubert Thompson. George Howard Forsyth held a doctorate, and the task he was given was to arrange for 'equipping the Research Department with instruments suitable for the research work to be undertaken'. He was also authorised to recruit a research team. The first member of his team, and later his deputy, was an ex-submarine engineering officer, Peter Scott Maxwell. In February 1947, Bill Marsh joined as Chief Technician with Harry Verity, Chief Draughtsman for Prototype design. In August 1947, George Standen, at thirty years of age, joined the team as Chief of Instrumentation.

George Standen held a First Class Honours Degree of Liverpool University in Mechanical Engineering. After university, he 'served at the Royal Aircraft Establishment, Farnborough as a junior Scientific officer from 1939 to 1942 and then at the Aircraft and Armament Experimental Establishment, RAF Boscombe Down as a scientific and senior officer, from 1942 until 1947'. For George Standen, joining Vickers at Barrow enabled him to return to his homeland since he was born at Kirkby-in-Furness, and received his secondary education at Ulverston Grammar School, geographically, Barrow Grammar School's closest rival. According to George Standen, Leonard Redshaw eventually acquired a regard for Forsyth's 'entrepreneurial inclination'. But in the year 1946, the Assistant to the Shipbuilding Manager's main preoccupations were shipyard activities.

After the 26th August 1947, Leonard Redshaw's interest in the mission of Dr Forsyth's research team undoubtedly became keener, since the Admiralty awarded a contract to Vickers at Barrow to build two

experimental submarines, EXPLORER and EXCALIBUR. Moreover, the team was assigned to staff a new department called A. D. E. B. (Admiralty Development Establishment Barrow). ADEB's site was also placed remote from the Barrow Works. The profound reason for this action was national security.

ADEB's 'top secret' work was initially concerned with studying German submarine technology. A half a century later, George Standen recalled that ADEB was created so that 'the Admiralty could acquaint themselves with developments in Germany on submarines in general and in particular developments in the use of hydrogen peroxide as the oxidant for combustion in the propulsion plant thus for the first time enabling a submarine to be propelled at high speed whilst fully submerged and without access to the outside atmosphere'. In George Standen's opinion, the Engineers at ADEB became to be looked upon by Vickers Barrow 'as those mad scientists down the road', and added that, 'Len Redshaw was no exception to this thinking'.

OBITUARY

ADMIRAL SIR PETER HERBERT

Submariner who played a key role in the Falklands conflict and kept the Soviets at bay in the Cold War

ADMIRAL SIR PETER HERBERT, who has died aged 90, was a distinguished submariner of the Cold War era. In 1982, Herbert was Flag Officer Submarines in the Royal Navy, and COMSUBEASTLANT (or Commander, Submarines, Eastern Atlantic Area) in the NATO command structure, commanding a force of British and American nuclear submarines, some of them on special operations in Arctic waters.

When the Falklands War broke out, two nuclear-powered submarines (SSNs), SPARTAN and SPLENDID, were quickly sent to the South Atlantic while Herbert ensured that this did not distract from his main effort, which was intelligence-gathering in the North and protection of the strategic deterrent. The SSNs CONQUEROR, COURAGEOUS and VALIANT, as well as the diesel-powered boat ONYX, also prepared to sail while Herbert urgently drafted rules of engagement for his boats.

The command structure, which had been in place for 10 years, was challenged by the task force commander, Rear-Admiral "Sandy" Woodward (also a submariner), who wanted the boats off the Falklands to be under his direct operational control. Herbert insisted that wartime was not the time to experiment with a new command structure.

When Woodward gave a direct order to CONQUEROR to sink the Argentine cruiser BELGRANO, an angry Herbert intercepted the signal, recognising that such a decision must go to the prime minister, and when the order "Sink it" was given from the War Cabinet, Herbert accepted it verbally. Asked whether he wanted that in writing, he said: "No, there won't be time - they'll have sunk it by the time it arrives."

Herbert was unfazed when at the end of May the Soviets attempted a break-out into the Atlantic to hunt for a British missile-carrying deterrent submarine, and he skilfully deployed his remaining forces to prevent this. Herbert was very proud that his RN submarines "were able to get cracking, very quickly with little real fuss they were a super bunch of "commanding officers". But as soon as the Falklands were regained it was back to business as usual against the, Soviet adversary in northern waters.

Peter Geoffrey Marshall Herbert was born into a naval family on February 29, 1929. His father was a naval cadet in 1915 who left the Navy under the "Geddes Axe" government cuts and went on to become a managing director of Lodge Plugs and sales director of Rover Cars. His maternal grandfather was a merchant naval officer who became commodore of the Union Castle Line, and who would make one piece of ornately carved furniture on each voyage.



Herbert pays a visit in the 1980s to his old 'hunter-killer' submarine, VALIANT. During his command, with so many novel systems on board which tended to malfunction, it had been known affectionately as the 'Black Pig.'

Peter was educated at Dunchurch Hall prep and the Royal Naval College, Dartmouth. Commissioned in 1949, he found that he was seasick in surface ships, so he volunteered for submarine service and learned this trade under the wartime submarine commanders, Tony Troup and Rud Cairns.

He served in the submarines ARTEMIS and ALDERNEY in 1950-51, though his overriding memory of these years was the search for AFFRAY,

which had been lost in the Channel with a training class embarked.

In 1956 to 1960 he commanded the submarines SCYTHIAN, PORPOISE and EXCALIBUR. The latter was an experimental high-speed boat powered by high-test peroxide: the fuel was so unstable that she and her sister ship were known as the "EXPLODER" and "EXCRUCIATOR". Until he learned to control it with the planes and rudders, Herbert also found EXCALIBUR was capable of sudden 50-degree "flip rolls" when run fast underwater.

Herbert was one of the first seaman officers to take the year-long nuclear engineers' course at Greenwich, and in 1963 he started a five-year command of the nuclear-powered "hunter killer" submarine VALIANT, which was building at Vickers-Armstrong Barrow-in-Furness.

When a design fault required re-engineering of the primary circuit of the nuclear reactor, Herbert retained his command while driving the frigate VENUS in the training squadron.

Herbert presided over a talented wardroom of officers, led by other future admirals including Sandy Woodward as first lieutenant and Jeremy Larken as navigator. After seemingly endless first-of-class trials VALIANT was tasked to undertake a high-speed submerged passage to Singapore, via Mauritius, in demonstration of Britain's ability to reinforce its East of Suez commitments.

When the prototype ship's inertial navigation system proved ineffective instead VALIANT was navigated 12,000 miles at high speed using sunsights taken through the periscope and chart soundings, some of which might have been made by Captain Cook. Herbert knew he had rounded the Cape of Good Hope when he watched on the echo sounder as the Agulhas Bank rose from the abyss to a depth of 100 fathoms. The return voyage was made non-stop at an average speed of 24 knots.

In 1968 Herbert took VALIANT on a sensitive intelligence-gathering mission in northern waters with a message ringing in his ears from the Secretary of State for Defence, Healey: "Don't you bloody well get detected." In fact, Herbert found VALIANT, because of her speed quietness, and the poor quality of Soviet sonars, could wander and watch events at will. Thus, he opened a period of independent operations unparalleled since earlier centuries which gave nuclear-powered submarines a central role in the Royal Navy of the Cold War.

VALIANT, because she was fitted with so many novel systems which malfunctioned when they were set to work, came to be known affectionately as the "Black Pig". Herbert was awarded the OBE in 1969. After submarine-related staff and shore commands, Herbert's broader potential was recognised and in

1974 to 1975 he was given command of the helicopter-cruiser BLAKE, which led to a major group deployment to the Far East and South America. Despite her wartime construction and being the oldest ship in the group, BLAKE under Herbert was the only ship fully to meet her programme.

His sea-command was curtailed because the First Sea Lord, Admiral Sir Edward Ashmore, wanted Herbert, with his special qualities, to become Deputy Chief, Polaris Executive (1976 to 1978), just as the costly and highly secret Chevaline programme to improve the Polaris warhead was getting underway and into trouble.

Herbert was promoted rear-admiral and became Flag Officer Carriers and Amphibious Ships (1978 to 1979), responsible for the Navy's major surface ships. Next he became Director General Naval Manpower and Training (1980 to 1981), at a time when the Navy was being forced to reduce manpower.

He was made KBE in 1983 and returned to the Ministry of Defence as Vice-Chief of Defence Staff (Personnel and Logistics) (1983 to 1985), when he rowed with the Secretary of State for Defence, Michael Heseltine. Herbert did not enjoy these years: while he learned a great deal about the Army and RAF and visited Germany and Northern Ireland and Falklands only a few months after the war was over, Heseltine, he said, "would not listen to concerns about retention".

In retirement he was chairman for nine years of the Armed Forces charity, SSAFA, helped to manage other charities, held some non-executive positions and was governor of Cheltenham Ladies College and of Cheam School.

Herbert was clearly competent and, though competitive, always pleasant, and much loved, whether by his crews or the congregation among whom he worshipped. In retirement his main interests were gardening, and - using his grandfather's tools - woodwork.

He held a deep Christian belief, and when the climb to St Lawrence at Bourton-on-the-Hill became too much for him he would drive there along the A44 on his ride-on mower. He wrote beautiful prayers, and on the last Sunday before he died he led the intercessions.

Herbert married his childhood love, Ann Maureen McKeown, and though it took many years to convince her, they married in 1953. She died in 2012 and he is survived by their son and daughter.

Admiral Sir Peter Herbert, born February 29th, 1929, died May 3rd, 2019.

From the Daily Telegraph 27th May 2019

SUBMARINERS ASSOCIATION MEMBERS 'CROSSED THE BAR' (Reported 1st April 2019 to 30th June 2019) (***) WWII Service)

NAME	DATE/AGE	RANK/RATE	BRANCH	SERVICE	SUBMARINES
D Sanderson	13 th February 2004 aged 79	Able Seaman (ST)	BLACKPOOL & FYLDE	Not given	SEALION, TRUMP & SENTINEL
G (George) Barlow	12 th June 2009 aged 90	Engine Room Artificer 1 st Class	SHEFFIELD	1951 to 1956	ALARIC, TALLY HO & TRENCHANT
A (Alwyn) Crampton	19 th March 2011 aged 84	Stoker Mechanic	WEST RIDING	Jan 1946 to Jan 1948	TRUCULENT, TELEMACHUS, VULPINE & TANTIVY
J E (James) Griffiths	1 st May 2017 aged 86	Not given	WALES	1956 to 1956	THOROUGH
M L C (Mike) Crawford	28 th June 2017 aged 100	Captain	PORTSMOUTH	1937 to 1968	SEALION, L23, UPHOLDER, H50, UNSEEN, OBERON, TIRELESS & ARTEMIS
D (Derrick) Pearson	20 th December 2017 aged 89	Able Seaman (TD3)	SHEFFIELD	1946 to 1953	SIRDAR, TACTICIAN, THOROUGH. TUDOR & ALLIANCE
D A (Don) Birrell	19 th December 2018 aged 94	Sub Lieutenant	Essex	May 1944 to Aug 1946	UNITED, VIRULENT & SYBIL
R (Richard) Hilton	9 th February 2019 aged 70	Radio Operator 1(G)	DOLPHIN	Not given	CONQUEROR
A H (Antony) Edge	27 th March 2019 aged 84	CPO Mech	GOSPORT	1960 to 1976	GRAMPUS & NARWHAL
I. (Ian) Watson- Smith	28 th March 2019 aged 76	ME1	Wales	1962 to 1970	ASTUTE (twice) & TALENT
James S Johnstone	5 th April 2019 aged 75	Leading Ordnance Electrical Mechanic	Blyth & Wansbeck	1961 to 1967	NARWHAL, SEALION & VALIANT
Geoffrey E Truss	14 th April 2019 aged 81	Leading Seaman	Essex	1956 to 1961	TAPIR, SEASCOUT & TACTICIAN
John Henry 'Jack' Billington	15 th April 2019 aged 96	Chief Electrician	Merseyside	1942 to 1947	SCORCHER, SEASCOUT, AMPHION, U-1407 (METEORITE)
David George Charles Gunter	17 th April 2019 aged 65	Chief Marine Engineering Artificer	Beds & Herts	Nov 1979 to Aug 1993	CHURCHILL (Nov 1979 to Jun 1986) & RENOWN (1990 to 1991)
Donald James Morgan	19 th April 2019 aged 87	Chief Petty Officer Coxswain	Merseyside	Dec 1954 to Jul 1972	TIRELESS (twice), SUBTLE, THULE, ANCHORITE (on Commissioning at Singapore on 11th Oct 1962, TOTEM on 'Commissioning on 28th Jan 1963, ORACLE, ALARIC, TAPIR & AURIGA on 'Commissioning' on 7th October 1965
M (Tonto) Kingshott	April 2019 aged 82	Fleet Chief Marine Engineering Artificer (P)	West of Scotland	Sep 1962 to Feb 1982	PORPOISE, TALENT, WARSPITE on Commissioning on 18th April 1967, RESOLUTION & COURAGEOUS
Sir Peter Geoffrey	3 rd May 2019 aged	Admiral	Dolphin	1949 to 1983	AUROCHS, ARTEMIS, TRUNCHEON, ALDERNEY (IL 30th March 1951),

Marshall Herbert, KCB, OBE	90				TABARD (IL 14th March 56), SCYTHIAN (CO from 14th September 1957), PORPOISE (CO 13th February 1961), VALIANT (CO on Commissioning on 18th July 1966 to April 1968), FOSM (1981 to 1983) & VCDS (1983 to 1984)
Jack Winstanley	13th May 2019 aged 90	Stoker Mechanic	Derbyshire & Nottingham	1947 to 1952	TRUNCHEON, TALENT, SANGUINE, ASTUTE & ALARIC
Colin Edward Hutchinson	2nd June 2019 aged 62	Charge Chief Marine Engineering Artificer	Barrow in Furness	Feb 1975 to Jul 1996	SOVEREIGN (1975 to 1978), SPARTAN (1978 to 1979), TRAFALGAR (1981 to 1983), REVENGE (1984 to 1986) & TALENT (1st Commission to 12th May 1990)
Geoffrey Arnold	3rd June 2019 aged 86	Chief Mechanician	Australia	1953 to 1963	ARTEMIS & TIRELESS
Adrian P Harrison	15th June 2019 aged 72	Ordnance Electrical Mechanician	Gosport	1971 to 1979	GRAMPUS (1971 to 1972), CHURCHILL (1974 to 1976) & (1978) & COURAGEOUS (1978)
Edward Gibson	19th June 2019 aged 78	ME1	Sunderland	Feb 1964 to May 1969	ORPHEUS, (1964), AMBUSH, OBERON (1965), ANDREW (1965 to 1967) & OSIRIS (1968)
B J (Barry) Gibbs	21st June 2019 aged 75	CCWEA	West of Scotland	Dec 1966 to May 1994	ARTFUL, RESOLUTION, REPULSE & REVENGE
Howard McFadyen, OBE	28th June 2019	Captain (MESM)	Submarine Officers	1976 to 1999	SWIFTSURE (1976 to 1978), OPPORTUNE (1978 to 1979), NEPTUNE (1980 to 1981), TRAFALGAR (1984), TIRELESS (1985 to 1988), NEPTUNE (1997 to 1999)
L.H (Laurence) Holding	June 2019 aged 90	Chief Radio Supervisor	Sussex	Nov 1948 to May 1967	ARTFUL, ALARIC, SCORCHER, SPRINGER, SERAPH, TELEMACHUS, CACHALOT & OLYMPUS
W F (Bill) Harris	June 2019 aged 92	Able Seaman (SDR)	Dolphin	Feb 1945 to Dec 1947	TALENT, TAKU & TACTICIAN (loan)
Peter Tilley	June 2019 aged 63	Chief Petty Officer WEA	Portsmouth (lapsed)	1973 to 1995	NARWHAL, DREADNOUGHT & TURBULENT
John L Taylor	June 2019 aged 93	Petty Officer Radio Electrician	Dolphin	Jan 1945 to Nov 1946	UNSPARING & TALLY HO

OBITUARIES – OTHER SUBMARINERS ‘CROSSED THE BAR’ (Reported 1st April 2019 to 30th June 2019 (***) WWII Service)

NAME	DATE/AGE	RANK/RATE	SERVICE	SUBMARINE SERVICE
Cyril Davis	April 2019 aged 97	Leading Stoker	***	Spare Crew when HMS MEDWAY sunk on 30th June 1942
John Sanders	20th April 2019	Engine Room Artificer	Not given	Not reported
Colin Ellmore	26th April 2019	Marine Engineering Mechanic	Not Given	Submarine Service including OPOSSUM
Michael Joice	26th April 2019 aged 74	Not given	1963 to 1979	ARTFUL & CACHALOT
Robert (Bob) McGahey	26th April 2019	Chief Radio Supervisor	Sep 1967 to Jan 1972	OTUS
Ian Roscoe	29th April 2019 aged 83	CE Mech 1	1954 to 1976	TRESPASSER, AUROCHS, GRAMPUS, AURIGA, AMBUSH & TURPIN
Philip Mann	April 2019	Cook	Not given	RESOLUTION (P) (2nd Commission Crew) 10th July 1971, WARSPITE on

				recommissioning in Nov 1973 & CONQUEROR
'Bas' Moran	16th May 2019	Warrant Officer	Not given	Submarine Service including RESOLUTION (P) (1980 to 1982) & STWG
Clement 'Tab' Hunter	17th May 2019	Chief Stoker	Not given	Submarine Service including OBERON
Derek V Lawbury	20th May 2019	Leading Seaman UW2 (A)	Oct 1963 to 1971	SERAPH (1963), OBERON (1963 to 1967) & AURIGA (1967 to 1971) On board AURIGA at time of Battery explosion on 12th February 1970
Carl Christian Anderson, BEM	20th May 2019 aged 94	Leading Electricians Mate	WWII to 1950s	STYGIAN, SELENE, TALLY HO, SCEPTRE (August 1949) & ALLIANCE BEM 'for services at time of battery explosion in SCEPTRE on 8th August 1949'
Les Satterley	20th May 2019	Not given	Not given	Not given
Charlie Scripps	May 2019	Not given	1950s to 1960s	Not given
Franklyn Arthur Collins	3rd June 2019 aged 74	Chief Petty Officer MA	Aug 1968 to May 1977	RENOWN, VALIANT & CHURCHILL
David William Vaillant	5th June 2019 aged 75	Control Electrical Artificer	1960s to 1970s	VALIANT
Brian Clark	11th June 2019	Petty Officer Cook	1960s to 1980s	REPULSE (S)
Christopher P Horn	14th June 2019	Chief Radio Electrician	1960s to 1990	RENOWN (S) (1st Commission Crew), REPULSE (P) (2 nd Commission) & STWG
Leonard Evans	15th June 2019 aged 87	Cook	1949 to 1957	SOLENT & AMBUSH
Christopher Rich	June 2019	Not given	Not given	Not given
S C (Taff) Rowlands	June 2019	Petty Officer Radio Supervisor	Not given	TRAFALGAR (1st Commission Crew on 27th May 1983) & TORBAY (1st Commission Crew on 7th February 1987)