

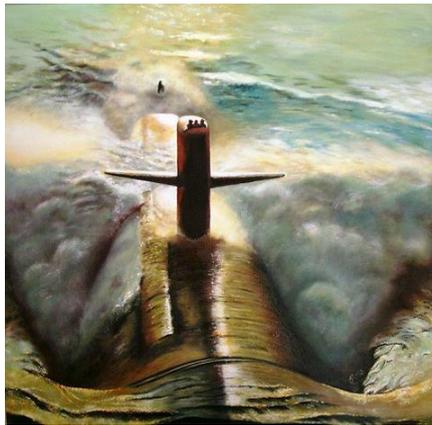


NOA'S ARK

Journal of the Naval Officers' Association of Southern Africa

Johannesburg Branch

2 August 2018



A powerful image of USS Los Angeles

Dedicated to submarines and those who serve(d) in them



WHAT ARE WE LOOKING AT?



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WATCH & STATION BILL



Who's who in NOASA?

PATRON

H.R.H. The Prince Phillip, The Duke of Edinburgh, KG, KT, OM, GBE, AC, QSO, PC, FRS

VICE PATRONS

Vice-Admiral M S Hlongwane SAN MMS, MMB Chief of the South African Navy

Vice Admiral R C Simpson-Anderson, SSAS, SD, SM, MMM

Vice Admiral R J Mudimu, CLS, DMG, SM, MMS, MMM, MMB

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Naval Officers' Association of Southern Africa, Johannesburg Branch Committee 2018 / 19

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HON LIFE V PRESIDENT:	Capt Ian (Mac) Anderson (Rtd)
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MEMBER:	Lt Rae Brown (Rtd)
EDITOR, NOA'S ARK:	Lt Cdr Michael Cordes (Rtd)



ADMIRAL'S FLAG HOIST



What's that signal from the Admiral saying?

This issue of NOA'S Ark is largely dedicated to submarines and those who served – and still serve – in them. Our sincere thanks to R Adm Rusty Higgs who kindly volunteered to help us with this ambitious undertaking knowing that the subject is a lot bigger than most of us appreciate. We non-submariner types who have happily sailed on the surface of the sea all our lives tend to forget what a special breed it takes to immerse oneself deep under water in a highly sophisticated steel tube. Being a submariner is not for everyone and as R Adm Higgs says in his Introduction on page 9, "Those who didn't like it voted with their feet and left....."

Ships on the surface have transported mankind since the earliest times. However, research shows that the notion of travelling under water is by no means a new one. There are examples going back into the mists of time showing people immersing themselves in primitive contraptions to attempt underwater travel. An interesting example on page 9 depicts Alexander the Great descending into the water in a kind of glass bell.

Early pioneering work of any kind is always fraught with danger as the intrepid – some might say crazy – pioneers ventured into the unknown under water. There were many failures and lives lost over the centuries, but this did not deter them. On the rare occasions when success was achieved it was limited, short-lived and on occasion questionable.

The strategic importance of submarines in a military context did not escape those from yesteryear either. This somewhat convoluted but interesting insert by Bishop John Wilkins of Chester, appeared in the Mathematical Maverick in 1648:

1. *Tis private: a man may thus go to any coast in the world invisibly, without discovery or prevented in his journey.*
2. *Tis safe, from the uncertainty of Tides, and the violence of Tempests, which do never move the sea above five or six paces deep. From Pirates and Robbers which do so infest other voyages; from ice and great frost, which do so much endanger the passages towards the Poles.*
3. *It may be of great advantages against a Navy of enemies, who by this may be undermined in the water and blown up.*
4. *It may be of special use for the relief of any place besieged by water, to convey unto them invisible supplies; and so likewise for the surprisal of any place that is accessible by water.*
5. *It may be of unspeakable benefit for submarine experiments.*

The good Bishop seems to have hit the proverbial nail on the head. In this spirit NOA'S ARK takes you on an all too short journey – above water of course – into the mystical realm of submariners.

Yours aye

*R Adm (JG) L M Balkes SD, SM, MMM, JCD (Rtd)
President, Johannesburg Branch
Naval Officers' Association of Southern Africa*



FROM THE WARDROOM



NOASA Johannesburg Branch AGM 2018 – Chairman’s Report

The AGM was held on 14 June 2018 at the Country Club Johannesburg.

Officers, Ladies and Gentlemen. A warm welcome to everyone and thank you for making the effort to be here tonight.

Before we start with proceedings I would like us to pay our respects to those members who crossed the bar over the last year with a moment’s silence.

To the committee I was privileged to have led for the past year my sincere thanks and appreciation for your guidance, dedication and enthusiasm which made my task an easy one. A special BZ to our President, Admiral Lukas Bakkes for his guidance during the year.

Although our Honorary Life President Capt Ian Anderson now lives 600 km’s away, his assistance and guidance is still very much appreciated.

The Treasurer who juggles our finances, thank you Johann for your support. The Treasurer took on additional work to ensure that our database gets updated, as well as receiving the replies and payments for the annual Battle of Trafalgar dinner. These efforts took up a lot of his personal time which one cannot expect from a volunteer

Ian Loubser, our secretary, thank you for the monthly agendas and minutes.

One does not like to single out people in a hardworking team but once again I must emphasize the effort and work of Hugh Brown for all the innovation and work he has put into the Trafalgar dinner last year. He certainly lifted the bar and I am looking forward to what he has up his sleeve for this year. Hopefully we can keep up the attendance numbers of at least 140 guests which we have achieved over the past 10 years.

I would also like to thank Mike Cordes for his production of the Ark, and I am sure that I speak for all in saying that there are always interesting articles to read, particularly his coverage of historical events.

To the most important part of the Association, you the members, my sincere thanks for your loyal support – without you and your support we have no Association.

Unfortunately, we have not been able to attract new membership, due to various reasons, abolishment of conscription, closing down of reserve force units, etc. The incoming committee will need to address this matter with urgency to ensure the survivability of the Association.

I strongly encourage members who have any ideas regarding the above to please contact the committee.

Finally, to the incoming committee, which will be elected shortly, I wish you a productive and enjoyable year ahead.

Cdr M Jardine

Chairman - Johannesburg Branch

Naval Officers’ Association of Southern Africa

EDITOR’S NOTE: The new committee was re-elected as per the Watch and Station Bill on page 3



FROM THE EDITOR'S DESK



Researching and compiling an issue of NOA'S ARK is always a pleasure and absorbing. But I confess I never thought about the huge task which awaited me when I started researching this issue on submarines. But I'm not complaining. On the contrary, it's been a journey of enlightenment, learning, absorbing interest and sheer fun.

I sure readers will understand that the topic of submarines is so huge that it's impossible for everything to be covered in the limited space available. Inevitably I will have left some things out but that was not by design – only by circumstance. I was privileged to have R Adm Rusty Higgs (Rtd) to not only provide the Introduction but to also scan his nautical eye through the contents ensuring accuracy and credibility.

As an ex 'surface sailor' I can only hope that I've done justice to the Silent Service and that you, the reader, will enjoy what's on offer.

In the Diary Update section on page 22 there's the important reminder about our annual Trafalgar Dinner on 20 October. Don't miss it – it's always a memorable occasion. You may rest assured the committee is working at full speed to ensure this year's dinner ranks with the best.

The decision was taken to change the date of the Memorial Service from the Sunday after the Trafalgar Dinner to a later date. The new date of Sunday 3 November should suit everybody a lot better. This service remembers those who paid the ultimate sacrifice at sea to ensure our future. Let's play our small part by honouring them.

On a personal level I'm about to undergo a 'sea change' in my life. At the end of August, I'll be moving from Edenvale to Port Alfred to 'report for duty' at my daughter and son-in-law's recently purchased guest house. They've allocated me a comfy 'cabin' and I'll be available to assist when needed.

While those popular images in holiday magazines of one reclining in a deck chair, sunglasses on and a tall drink close at hand are tempting, they are just that – images. I'm happy that many of my present activities will not cease. Thanks to the wonders of technology I'll continue with NOA'S ARK and my freelance journalism. I'll also continue and expand my writing projects.

All in all, I look forward to a busy time without sparing a thought for retirement!
I can't wait.

Yours aye

Lt Cdr M A Cordes MMM, JCD (Rtd)

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CROSSED THE BAR



'Crossing the Bar' is a term generally used by the military/ex-military and more specifically the Royal Navy to politely inform and advise of a person who has died. The term is taken from a poem by Lord Alfred Tennyson as meaning to cross the "sandbar" between the tide or river of life, with its outgoing "flood," and the ocean that lies beyond death, the "boundless deep," to which we return. The "Pilot" being God. He wrote the poem after a serious illness while at sea, crossing the Solent from Aldworth to Farringford on the Isle of Wight. He died shortly after this.

NOA's ARK and the Johannesburg Branch of NOASA extend their deepest condolences to the families and friends of those who have Crossed the Bar.

These are excerpts from the messages we received.

The Reverend Mr Desmond Plint died at East London on 2nd July of complications following a surgical operation.

We all remember Padre Des for his dignified yet jocund service as Honorary Chaplain to the Johannesburg Branch of the Association during the 1990s. He was enormously proud to wear the uniform of the South African Navy Reserve. He was also a member of the Germiston Caledonian Society Pipe Band, and was a top-drawer piper, excelling particularly in the demanding and difficult art of pibroch.

Amongst the curacies he held during a long life of service was that of Germiston Central Methodist Church and Chaplain at St Stithian's College.

We all send our respect and condolences to his family, especially his wife, Fran and his son and fellow Naval Officer, Capt (SAN) Graeme Plint.

Gareth Hide



It is with sincere regret that we advise of the passing of R Adm (JG) Frank Peché SAN (Rtd) on Thursday 03 July at 2 Military Hospital.

Our deepest sympathy to Moira and all his family.



I regret to inform you that Cdr Gert Leonard (Rtd) passed away on 25 June at the age of 82. An officer and a gentleman, RIP. Condolences to his wife Anna, daughters Barbara & Tina, family and friends.



It is with great sadness that I have to inform you of the death of Charnee following a motor accident that occurred on the N1 highway on the 2nd of June. In short, she was impacted from behind by a large Dodge 4x4 which, aside from the force of the impact from behind, caused her car to spin and hit the centerline barrier. The post mortem has not been conducted as yet, but it appears that the second impact also did a lot of damage to her brain. She was driving her fairly new Audi A1 and was going to attend a show and dinner with us at the Brooklyn Theatre.

The reaction of the Johannesburg Metro Paramedic unit was excellent as well as two women who saw the accident and rushed to help. The paramedics were on the scene about five minutes after the accident occurred. They managed to stabilize her on the spot and got her to the Unitas Hospital where, after scans etc. she was operated on by a brain surgeon and attended by an excellent Trauma Surgeon. She was then placed in ICU. She never regained consciousness and died in the early hours of Thursday morning from a failed heart. She also had severe (irreparable) brain damage. Had she recovered her quality of life would have been very questionable.

So ended the life of a brilliant young woman with four degrees and a wonderful zest for life, helping others as an Educational Psychologist.

R Adm (JG) Trevor Beddy, SD, SM, MMM (Rtd)



Cdr William Barker (Rtd), former member of SAS Rand, Crossed the Bar on 17 May 2018. His memorial service was held on Saturday 02 June 2018 at the Everglen Baptist Church, Durbanville.



It is with sincere regret that we advise of the passing of Capt Vic Martinelli JCD MMM SAN/SANR (Rtd) on Mon 23 July 2018 at 2 Military Hospital.

Our deepest sympathy to Antoinette and their daughter Victoria and family.



A TRIBUTE TO SUBMARINES AND THOSE WHO SERVE(D) IN THEM

SA NAVY SUBMARINES



Past and present

Introduction by R Adm Rusty Higgs (Rtd)

“On 18 March 2019, the South African Navy Submarine Service will be 50 years old! The first of our Submarines, SAS MARIA VAN RIEBEECK (later renamed SAS SPEAR) was launched on 18 March 1969 in France. This was the culmination of years of negotiating, initiated in 1965, to provide three Daphne Class Submarines plus training and infrastructure to run and maintain them.



The farsightedness of the Naval Planners of those days recognised the need for a submarine service to become a “force multiplier” for the SA Navy into the future. Significant resources were allocated for the establishment of this strategic capability in Simon’s Town, including amongst others, significant enhancement to the harbour facilities, the creation of the submarine basin, a synchro lift capable of placing a Daphne Class Submarine on the hard for extended periods and moving it into the submarine shed for refit purposes. The Submarine Flotilla was housed in a multi-storey building in Simon’s Town. It was initially called Drommedaris and then later renamed SAS HUGO BIERMANN after the SA Navy’s only Four-Star Admiral.

However, as many a naval pundit argues, the most important element was the “creation” of the SA Navy Submariner. He (at that stage only men were allowed to serve at sea in submarines) had to be a volunteer who was subject to strict physical and psychological requirements. He needed to be able to operate in a team of up to 65 people, in extremely adverse conditions making use of a hot bunk system, with no showering facilities, very limited exercise, no smoking – except under very constrained conditions in the “bridge” whilst on the surface. The only alcohol on-board was a bottle of pure alcohol used to clean the periscope before the submarine dived. The “uniform” in the submarine at sea was largely short trousers with a sleeved T shirt with sandals which needed to have a strap around the heel. The unwritten policy in the submarine was to address seniors by their rank and juniors by their first or nickname. On occasions people were addressed by the post they filled. The environment was very conducive to collaborative and cooperative teamwork. The ultimate test on whether someone was to be successful as a submariner was how they adapted to the environment. Those who didn’t like it voted with their feet and left, and those who liked it stayed, worked hard and achieved the ultimate qualification – to wear the badge and be called a submariner!



The culture of the submariner is probably best summed up by the following people:

Winston Churchill: “Of all branches of men in the forces there is none which shows more devotion and faces grimmer perils than the submariners.”

Vice Admiral Rudolf Gosolov, Russian Navy: *“Submariners are a special brotherhood, either all come to the surface, or no one does. On a submarine, the phrase all for one and one for all is not just a slogan, but a reality.”*

The final decommissioning of the last Daphne Submarine, SAS ASSEGAAI occurred in 2003 and the proud heritage of the Submarine Service was given a new lease on life with the bringing into service of the three Type 209 1400-Mod Heroine Class Submarines. The first submarine, SAS MANTHATISI, was commissioned in November 2005 in Kiel, Germany. The new generation of Submariners (women included) consider these to be South Africa’s first “true” submarines, as they are far more suited to being underwater than the Daphne Class.



Type 209 Heroine Class Submarine S A Navy

The immense strategic value was best illustrated in late 2007 when a NATO Maritime Group engaged with the South African Navy off the Cape Coast for the first time. The SAS MANTHATISI, not only evaded detection by a joint NATO and South African Navy Force during a free play exercise, but it “sank” a large number of ships in the exercise. The words echoed by the South African Defence Minister as well as by the Commander of the NATO Maritime Group was that SAS MANTHATISI put the South African Navy on the map as a highly respected and capable player which is capable of operating with the most sophisticated of Navies.



The billboards of the Pretoria News the following day read “SA Navy Sub sinks the NATO Fleet”

This single exercise in arguably one of the most highly publicised international naval events, has led to the South African Navy and South Africa being globally respected. In conclusion, therefore, and looking forward to the next 50 years, the older generation of Submariners wishes the new generation well as they deal with emerging challenges.”



MEET R ADM RUSTY HIGGS (Rtd) - SUBMARINER & SAILOR

R Adm Robert (Rusty) Higgs, SM, MMM, LOM (USA) (Rtd) spent 40 years in the SA Navy. It is my pleasure to give our readers a resumé of his remarkable career.

R Adm Higgs, a fifth generation South African, was born in King William's Town, Eastern Cape on 7 July 1957. A product of Grey High School in Port Elizabeth where he was elected as Deputy Head Boy of the School and Head Boy of the Boarding House in his final year. He joined the SA Navy in 1976 as a midshipman. He graduated from Naval College, winning the Heydenrich Trophy as the Best Midshipman of the Year. He was commissioned in 1978 and spent three years at the Military Academy in Saldanha Bay where he obtained a B Mil (B Sc) and was recognised as the top Naval Student of his year group.

In the initial phases of his career, R Adm Higgs qualified as a Mine Clearance Diving Officer (which allowed him to dive to maximum naval depth on all naval diving equipment) and served at sea in various billets in Minesweepers and Mine-hunters.



Minesweeper



Minehunter

His first command was of the SAS FLEUR, the Torpedo Recovery Vessel and Diving Tender.



SAS Fleur

In 1983 he completed an appointment at the SA Naval College (Gordon's Bay) as an Officer Instructor. In 1987 he completed an appointment at the Naval Staff College as a member of the Junior Directing Staff for the Operations Module.

R Adm Higgs spent the second phase of his sea career in the Submarine Service. This was a very intensive period of his career where he worked his way through all submarine officer's courses, spent much time at sea and qualified to serve as the First Lieutenant of SAS EMILY HOBHOUSE (later renamed SAS UMKHONTO). This culminated in his command of the SAS JOHANNA VAN DER MERWE (later renamed SAS ASSEGAAL), a DAPHNÉ Class Submarine in 1991.



Daphne Class submarine – SA Navy

This period in command of a submarine allowed him to hone his leadership skills in an all-volunteer environment. He worked for extended periods in a hostile environment with a ship's company of highly qualified and skilled men. On completion of two years in command of the submarine, he served as the Operations Officer of the Submarine Flotilla where he planned and directed submarine operations. In 1993 he was appointed as "Teacher" of the next generation of submarine commanders where he mentored South African naval officers and officers from the International Community.

In 1994 R Adm Higgs began the Naval Command and Staff Course, but was withdrawn from course in July after the SA Navy was offered the first opportunity to send an officer to attend the historic and prestigious United States Naval War College in Newport, Rhode Island. In a joint environment, where only half of the US students may be naval – by Congressional legislation - he studied National Security, Strategy and Policy and Joint and Combined Operations. His classmates were senior naval officers from 35 other navies, a number of whom achieved very senior positions in their respective careers. He was the winner of the Naval War College 1995 Robert E. Bateman's International Prize Essay Award for his paper entitled "*A Role for the United States in an International Security Strategy to Support the Reconstruction and Development of Sub-Saharan Africa*". This paper was published in the Winter 1996 Naval War College Review. Following his time at the War College, R Adm Higgs obtained a Master's Degree in International Relations from Salve Regina University, Rhode Island in May 1996.

In 1996 he was promoted to Captain in the SA Navy and appointed to SA Naval Headquarters. He served as the Director of Naval Force Planning and then as the Director of Naval Strategy. During these appointments he represented the Chief of the Navy on the Defence Review Process. In the Transformation arena, he served as the team-leader for the "Develop Policy" workgroup in support of the Chief of Policy and Plans of the Department of Defence.

R Adm Higgs was appointed to Washington in 1998 as the Naval Attaché. In 2000, he led the Defence Office of Ambassador Sheila Sisulu.



Capt Higgs (L) while Naval Attaché in Washington

He was elected as the Chairman of the Naval Attaché Association in Washington for 2000, a first for a SA Naval Officer. This association comprised of more than 100 officers ranging from mid-rank to three-star admirals. In addition to his regular attaché duties, R Adm Higgs was designated as the South African representative for the development of the Pentagon-sponsored African Center for Strategic Studies from early 1999 where he interfaced with senior military leadership from the African continent as well as the United States and France.

R Adm Higgs returned to Pretoria in 2001 on completion of his tour in Washington. and was staffed as SSO Naval Career Management in the Navy Headquarters where he managed and gained experience in piloting people issues in a complex transformation process. He attended the Executive National Security Program during the second half of 2001. During this program he was elected by a diverse group to lead the course as the "Regal". In addition, he achieved recognition for his research paper, "*Shaping the Future – Re a bopa*", where he provided the rationale behind and strategic guidelines for engaging the region.

In 2003 R Adm Higgs was appointed as SSO Navy Public Relations where he was responsible for the SA Navy Communications Strategy whilst the Navy began to receive its frigates from the Strategic Defence Package. In December 2004 he was awarded the National Bua Communications Award from Dr Essop Pahad, the Minister in the Presidency.



New Valour Class Frigate of the SA Navy

In February 2005 he was appointed as the Director of Maritime Warfare and promoted to Rear Admiral (JG). In addition to his regular maritime warfare duties, he was appointed to lead Project Millennium, the development of a multi-mission strategic projection vessel capability, through the *Required Operational Capability* and *Staff Target* processes. This responsibly allowed him to work very closely with all the Services and Divisions as well as with Armscor.

In April 2007 R Adm Higgs was appointed as the Chief of Fleet Staff in Simon's Town.



On 1 March 2008 he was appointed as Flag Officer Fleet and promoted to Rear Admiral. During this appointment, where he commanded the Fleet of South Africa, he was responsible for more than 6 000 people and controlled an operating budget of R700m. He was privileged to oversee the new SA Navy, including its new Valour Class Frigates and Heroine Class 209 Submarines, exercising with the Brazilian, British, Chinese, French, German, Indian, Russian, US and many other navies.

In 2011 R Adm Higgs took over the responsibilities of Chief of Naval Staff at Naval Headquarters in Pretoria. The highlight of his career was being selected to serve as a pall bearer for former President Nelson Mandela in December 2013. He stood at Mandela's right shoulder as he was finally laid to rest.

R Adm Higgs retired on 31 August 2016 after 40 years of service in the SA Navy and opened the second chapter of his career when he joined Rheinmetall Denel Munition in late 2016. He is based in Pretoria and serves as General Manager responsible for Stakeholder Relations.

Rusty Higgs is married to Diana (née Hoernlé) who has a MSc in Medical Biochemistry and they have three children, Joy-Margaret (married to Dylan des Fountain, a former professional rugby player) who is the Chief Financial Officer of M&C Saatchi in Cape Town; William (married to Talia, a qualified medical doctor) a CA (SA), who is the COO and Regional FD of National Financial Brokers; and Richard (married to Hesmari, who is with Al Jazeera) a CA (SA) and CFA Charter Holder, who has just completed his MBA at the Chinese European International Business School in Shanghai. Their first grandchild, from Joy-Margaret and Dylan, Connor, was born in March 2013. He was joined by Hannah who arrived in May 2015.



R Adm and Mrs Higgs at the 242nd Anniversary of the US Marine Corps Ball

They share an interest in activities associated with the Family, the Service, the Anglican Church (R Adm Higgs is currently the Church Warden at St Francis in Waterkloof), the Profession, caring for their two Rottweilers, and swimming. He recently completed the Super 8 Mile Swim at the 2018 Midmar Swim.

He has been awarded the Southern Cross Medal, Military Merit Medal, Pro Patria Medal, Southern Africa Medal, Unitas Medal, General Service Medal, the Bronze and Silver Good Service Medals, the 30 Year Good Service Medal, the United States Legion of Merit (Officer Class), the Brazilian Naval Order of Merit Decoration and the Brazilian Medalha Mérito Tamandaré.



From L to R

R Adm Higgs, R Adm (JG) Bakkes (President of NOASA Johannesburg Branch) and Cdr M Jardine, Chairman



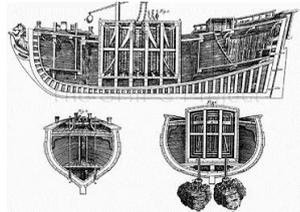
HISTORY OF SUBMARINES - QUICKIES FROM THE PAST

To give justice to the full history of submarines would require a lot more space than is available here. I've tried to identify notable developments over the years to show how the submarine started and adapted through history.

A 16th century Islamic painting depicting Alexander the Great being lowered into the water in a glass submersible

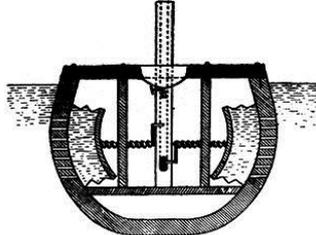


The world's first working prototype was built by Cornelius van Drebbel, a Dutch polymath and inventor in the employ of King James 1

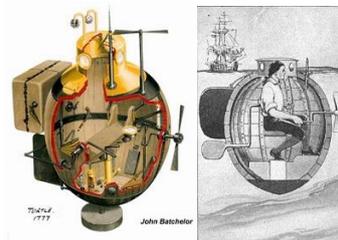


Drebbel's modified rowboat in the 17th century

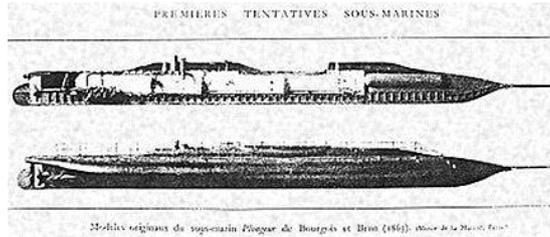
British mathematician William Bourne made some of the earliest known plans for a submarine in 1578.



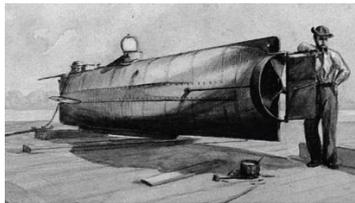
The first military submarine was the Turtle in 1776. During the American Revolutionary War, Turtle – operated by Sgt Ezra Lee of the Continental Army – tried and failed to sink the British warship HMS Eagle in New York Harbour on 17 September 1776. (HMS Eagle was the flagship of the blockade of New York Harbour.)



The first submarine that did not rely on human power for propulsion was the French Navy submarine *Plongeur*, (Diver) launched in 1863, and equipped with a reciprocating engine using compressed air from 23 tanks at 180 psi. In practice, the submarine was virtually unmanageable underwater, with very poor speed and manoeuvrability.



1864 *H. L. Hunley*, often referred to as *Hunley*, was a submarine of the Confederate States of America that played a small part in the American Civil War. *Hunley* demonstrated the advantages and the dangers of undersea warfare. She was the first combat submarine to sink a warship (USS *Housatonic*), although *Hunley* was not completely submerged and, following her successful attack, was lost along with her crew before she could return to base. The Confederacy lost 21 crewmen in three sinkings of *Hunley* during her short career. She was named for her inventor, Horace Lawson Hunley, who died with his invention.



The Hunley

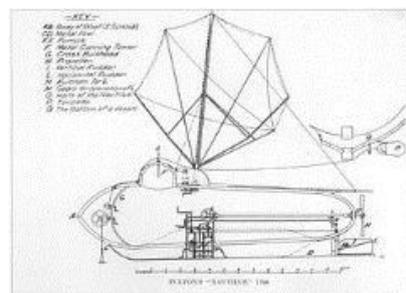
The first submarine to successfully dive, cruise below the water surface and emerge to the surface again by its own was the *Sub Marine Explorer* of the German American engineer *Julius H Kröhl*, which already comprised many technologies that are still essential to modern submarines. After its public maiden dive in 1866, the *Sub Marine Explorer* was used for pearl diving off the coast of Panama. Owing to its very advanced design, it was capable of diving deeper than 31 meters (103 feet), remarkably deeper than any other submarine built before.



The wreck of the Sub Marine Explorer

The first military submarine was built in 1720 by carpenter Yefim Nikonov by order of Tsar Peter the Great in Russia. Nikonov armed his submarine with “fire tubes”, weapons akin to flame-throwers. The submarine was designed to approach an enemy vessel, put the ends of the “tubes” out of the water, and blow up the ship with a combustible mixture. In addition, he designed an airlock for aquanauts to come out of the submarine and to destroy the bilge of the ship. With the death of Peter I in January 1725, Nikonov lost his principal patron and the Admiralty withdrew support for the project.

In 1800, the French Navy built a human-powered submarine designed by Robert Fulton, the *Nautilus*. It also had a sail for use on the surface and so was the first known use of dual propulsion on a submarine. It proved capable of using mines to destroy two warships during demonstrations. The French eventually gave up with the experiment in 1804, as did the British, when Fulton later offered them the submarine design.

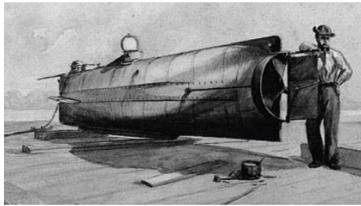


LOST SUBS



Image by Aldo Ferrucci

For those in peril.....



Hunley



Kursk

Between these two famous wrecks exists a vast storehouse of submarine accidents, collisions, depth-charges, bombings and mishaps too many to record here.

The stories recount courage of men unheard of by any normal comparison. When there were no survivors the chroniclers relied on research from rusting hulks as technology advanced man's ability to turn back the pages and work out what happened to those souls trapped in the depths.

There was never anything 'nice' about submarines when it came to researching their exploits and the fate of their occupants. This is best summed up by the Epilogue from *Lost Subs* by Spencer Dunmore. I quote.

"The sea has never been safe. Nor will it ever be. The risks that submariners take are those of any sailors at any time – albeit of a much higher order. Conventional sailors face their dangers upon the water; a submariner's environment envelops him and is ready at any moment to reassert its supremacy.

Yet in the aftermath of each undersea disaster, submarines have become safer. Tragedy has spurred the development of innovative concepts such as personal rebreathing equipment, the submarine rescue chamber, compartment and tower escape systems, personal survival equipment and the Deep Submergence Rescue Vehicle – greatly increasing the chances of survival if trouble does occur.

But the prospects of avoiding a catastrophe are better also. At the time of writing, no American or British submarine has been lost in over thirty years. In fact, submarines are now perceived to be so safe that a number of companies manufacture civilian submarines – and find a ready market for their craft.

If the risks have been minimized, the benefits remain as great as ever – as great as when the idea of a ship capable of sailing undetected under the water first occurred to Alexander the Great. In the aftermath of September 11, 2001, the submarine was once again a key strategic player as British and American nuclear submarines, equipped with Tomahawk cruise missiles, hit Taliban targets deep in Afghanistan with pinpoint accuracy – and total impunity.

Those who serve in submarines are well aware of the risks they face – and from the H L Hunley onward, there has been no shortage in the world's navies of those brave enough to ask for this strenuous duty. They push their ships, and themselves, to the utmost, in peace and war (of either the cold or hot variety).

Those twisted wrecks that lie mute on the world's seafloors are a tribute to the daring and courage of what is referred to as the *Silent Service*."



SUBMARINES TODAY



A surface sailor's perspective

It's been a long, dangerous, adventurous, successful - sometimes - voyage from the days of the first submarine to today's behemoths. The little research I've done for this special feature on submarines has taught me many things, not least of which, we're dealing with special craft manned by special people. As a former 'surface sailor' I am in awe of the machines and their crews.

Today's submarines are hardly comparable with their predecessors. The *Holland*, America's first submarine in 1900 carried two tiny torpedoes and a crew of nine. By the end of the 20th century the *Russian Typhoon SSBN* had a crew of 160 and carried 20 wholly destructive ballistic missiles. The 21st century ushered in the most incredible advances in submarine warfare and to match these the new era of multi-billion dollar boats which are highly complex undersea weapons platforms capable of reaching any corner of the globe with catastrophic accuracy.



Royal Navy Astute Class – HMS Artful

And the submarine's greatest allies of stealth and invisibility remain as they have from the beginning. I always marvel at the interior of submarines. We've all seen the photographs of how cramped and uncomfortable the older submarines were. Pictures of serious, perhaps fearful, unkempt men furiously turning handles, peering into periscopes or monitoring dials overhead tell only a minute part of the harsh conditions they endured. The movie industry has never been shy to depict those tough conditions and ensure bums on seats in the theatres.

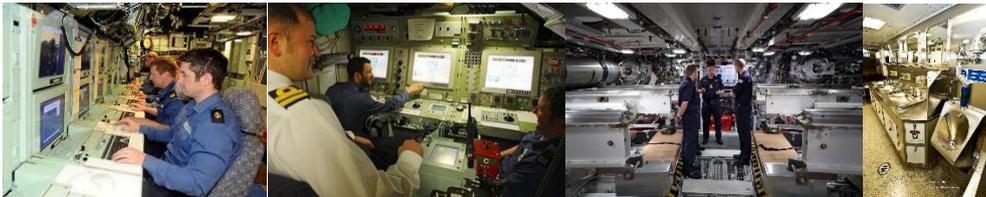
Life on board a U boat in WW2



Life on board a nuclear submarine today



Today's submarines – including the conventional ones – offer much improved conditions. They remain cramped and clogged but improved designs in layout and equipment have given the crews better conditions. The huge nuclear submarines are by comparison, palatial. I can see loyal submariner's wince at those words, but please bear with me. When one considers that in the leading navies there is a dress code and crew members manning their stations are comfortably seated facing an array of controls and dials – all within easy, functional reach; that the equipment they operate is of the very best; that safety is light years ahead of what their earlier colleagues knew; that rescue and survival are much improved options; that training is maintained to the highest standards and that every crew member is surrounded by fellow professionals, then today's nuclear submarines are incredible machines.



In the modern era women have taken their place alongside men on ships and submarines. The latter took longer to implement as the debate raged in numerous naval headquarters and traditionalists clung to the past. Women are now a reality in submarines in a number of navies. In the photo below these three lieutenants in the Royal Navy became submariners and made history in 2014. Other ranks followed not long after this.



L to R Lts Maxine Styles, Alex Olsson and Penny Thackray

Because of their vastly improved capabilities, nuclear submarines have much expanded roles that serve a vital strategic requirement in their navies and by extension, for their governments. This is borne out by the enormous sums spent by the three 'big players', US, Britain and Russia which maintain boats around the globe. According to John Parker, author of *The Illustrated World Guide to Submarines*, these nuclear-powered vessels can circumnavigate the globe 40 times without having to refuel; and in one single boat they carry more explosive power than all the bombs dropped during World War II.



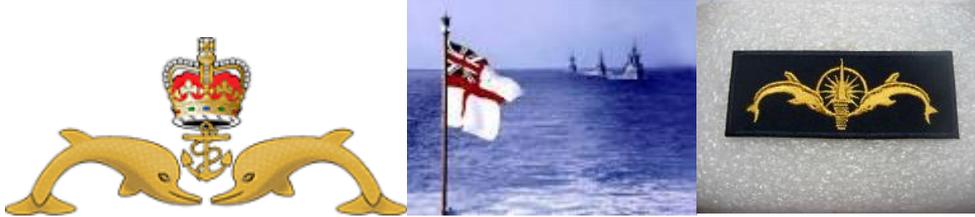
That's sobering stuff written in 2007 and I've no doubt in 2018 those statistics have been surpassed.

Submarines might have changed dramatically over the years but the qualities which define their crews have never changed. They still are volunteers, carefully selected, highly trained and totally dedicated as they take their boats under the oceans of the world without the rest of us ever knowing. The *Silent Service* certainly deserves a sincere Bravo Zulu from their surface sailor colleagues, or is it shipmates?



A SELECTION OF SUBMARINE INSIGNIA

ROYAL NAVY



SOUTH AFRICAN NAVY



UNITED STATES NAVY



KRIEGSMARINE UBOATS WW2



ROYAL NETHERLANDS NAVY



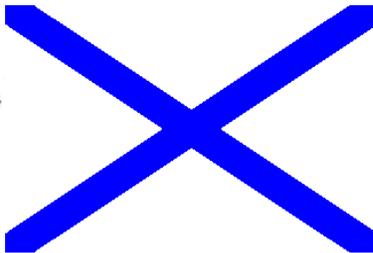
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OFF THE BOOKSHELF



In keeping with the theme of this issue, here are some books which you will find highly readable and informative.

Cry from the Deep – Ramsey Flynn (Published by HarperCollins Publishers)

The submarine disaster that riveted the world and put the new Russia to the ultimate test.

“With its excruciating tension and pure narrative drive, this book belongs on a shelf with *The Terrible Hours*, *Blind Man’s Bluff* and other bracing classics of the submarine genre. Ramsey Flynn shows us, through the periscope of this unforgettable tragedy, how a fitful modern Russia still struggles to surface from the turbid depths of the Soviet past.” Hampton Sides

“A page-turning account of a military disaster and a chilling political drama that’s all the more shocking because it’s true.” Howard Blum

“*Cry from the Deep* is just that – a chilling story of men fallen out of reach and beyond hope. Ramsey Flynn has written the fullest account of the Kursk tragedy to date.” Sherry Sontag

“This is a taut account of a naval disaster. In the sinking of a submarine, Ramsey Flynn also has found a harrowing metaphor for the difficult political transition in the former Soviet Union, describing the catastrophe caused by ideological rust and exacerbated by corrosive inaction and deceit.” Jere Longman

Lost Subs – Spencer Dunmore (Assisted by J David Perkins) (Published by Da Capo Press)

Introduction by Dr Robert D Ballard

From the Hunley to the Kursk – the greatest submarines ever lost and found.

This comprehensive and fascinating account of submarines records their evolution from the early days of Robert Fulton’s experiments through to the U-boats and nuclear subs. Thanks to the many developments of modern technology, the reader is transported into the ocean depths to view the incredible photo images of many famous submarines. It is a rich collection of superb photography and fascinating text.

The book also gives numerous technical explanations, with sketches, of how submarines are constructed and operate – no doubt for the benefit of ‘surface sailors’.

Iron Fist from the Sea – Douw Steyn and Arne Soderlund

This is the story rather than the history of Seaborne Ops.

It documents the clandestine seaborne operations undertaken by South Africa’s 4 Reconnaissance Commando (4 Recce). It reveals the versatility and effectiveness of this elite unit which worked with other South African and Rhodesian forces, including the Rhodesian SAS, to engage in a range of raiding and war activities. These operations saw the clandestine reconnaissance of harbours, the sinking of enemy shipping and the destruction of shore installations in Angola and Mozambique - just some of the tasks undertaken by this extraordinary maritime capability which totalled no more than 45 operators, both black and white!

With unparalleled access to previously secret material, the authors, both of whom worked to develop 4 Recce’s operating capabilities, trace the origins of the Recce’s back to the 1970’s when the South African’s determined the need for a maritime force projection capability.

Steyn and Soderlund’s chronological analysis of the operations undertaken by 4 Recce and the South African Navy is stunning to behold. They impartially detail the secret and specialised actions which saw both success and failure. This is a fascinating work and one that will enthral anyone with an interest in Special Forces operations. Profusely illustrated with many previously unpublished photographs, it stands as a testament to the author’s endeavours as, respectively, the former Operations Commander of 4 Recce and the former Commander Task Group of the SA Navy - as well as the incredible operators of 4 Recce.



MAKE A SIGNAL.....



DIARY UPDATES

NOASA Trafalgar Dinner

Saturday 20 October 2018 at the Country Club Johannesburg (Auckland Park)

NOASA Memorial Service

Sunday 4 November 2018 at 11:30 at The View

TRAFALGAR DINNER 2018

Those readers who have attended in the past can testify that we commemorate this solemn occasion in a fitting naval manner. This year – as in the past - there's a distinguished line-up of guest speakers to enhance the stature of the evening and ensure that the immortal memory of Nelson lives on.



Invitations have been sent, and we urge you to respond at your earliest convenience.

NB Payments for the dinner will close on 5 October 2018



See you there!

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MAKE A SIGNAL.....

By Capt Jack Broome D.S.C. R.N.



BRAVO ZULU

From the distant past

“The first authority on the subject of signaling in the Royal Navy is the *Black Book of the Admiralty*, which appeared in 1338 and is still in existence. In those days England was a long way behind their contemporaries in the Mediterranean, who were backed by Greek and Roman tradition and encouraged by Mediterranean weather. Take for example, the intelligent grasp which Emperor Leo VI had three hundred years previously on the matter of signaling at sea.

“Let there be some standard in your ship, either a banner or a streamer or something else in some conspicuous position, to the end you may be able thereby to make known what requires to be done.” He then suggests appropriate signals for what does require to be done to control a fleet at sea. He finishes, “And thus, O general, let the exercise of these signals be practiced, so that all officers in command of ships under you may have certain knowledge of all such signs, so that well familiarised with signals, they carry out the orders indicated.”

At least those instructions laid the foundations for reasonable communication between ships, whereas three hundred years later our *Black Book of the Admiralty* contained only two single flag signals.”

SCRAP LOG



From dissatisfied Admiral during manoeuvres to private ship:

Would it not have been better to have turned to starboard.

Reply

Yes

Two Mediterranean destroyers being attacked periodically by enemy aircraft.

From 1st destroyer

Today is coronation day.

Reply from 2nd destroyer

Hope you don't get crowned

The Senior Officer of a Motor Torpedo Boat Flotilla, operating from a temporary base, had quarters in the local hotel. He returned on night late from London, to find his room was occupied. Next day he sent the following signal to the flotilla:

Officers are reminded that the S.O.'s cabin is not, repeat not to be used for purposes other than those laid down in the Boy Scout Manual.

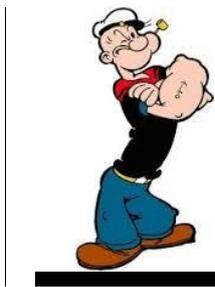
In July 1943, a minesweeper entered Syracuse harbour towing a captured Italian submarine. She looked very pleased with herself. Another minesweeper leaving harbour signalled:

Is that your first today.

From C-in-C Mediterranean to Sunderland aircraft which has just announced proudly by signal that she shot down a small Italian shadower.

You great big bully.

THE LAST WORD



AT LAST!

Its been a serious issue and rightly so. Now it's time to sign off on a lighter note and this includes everybody's favourite sailor – Popeye - as our hero.

These images of sailors from different navies have one thing in common – they're all smiling. Sailors are mostly a cheerful lot and even our old friend Popeye looks pretty smug.



Royal Navy Reserve



Royal Canadian Navy (WW2)



Royal Australian Navy



RAN Winter Rig



RAN Summer Rig



U S Navy



2 Russian Navy Veterans



South African RNVR serving on HMS Nelson in WW2



Royal Navy ratings



Our Patron showing his lighter side



Duke of Cambridge centre back row

HMS Artful

QUOTABLE QUOTES

I have a brain like the Bermuda Triangle – information goes in never to be found again.

The secret to happiness is a good sense of humour and a bad memory.

Some days I wish I had the wisdom of a ninety year old, the body of a twenty year old and the energy of a three year old.

Curious things, habits. People themselves never knew they had them.

Only Irish coffee provides in a single glass all four essential food groups: alcohol, caffeine, sugar and fat.

I wonder whether if I had an education, I should have been more, or less a fool than I am.

The first computer was owned by Adam and Eve. It was an Apple – had limited capacity – one byte and then everything crashed.

Diplomacy. The patriot art of lying for one's country.

Egotist. A person of low taste, more interested in himself than me!

Committee: A body which keeps minutes and wastes hours.

Cheese. Milk's leap towards immortality.

Adult. A person who has stopped growing at both ends and is now growing in the middle!

Russian proverb. Better to be slapped with the truth than kissed with a lie.

Man was given a sense of humour to compensate for nature's law of gravity.

With that chuckle I wish you fair winds and a following sea.

Until next time.

