

# HMS QUEEN ELIZABETH

*“Semper Eadem – Ever the Same”*

Newsletter Issue 04 | December 15



## BUILD PROGRESS

Sitting proudly overlooking the Firth of the Forth, progress on the Royal Navy's future flagship is clear. Externally, the Long Range Radar has been turning and burning above the forward island whilst the Medium Range Radar has been fitted to the after island. Areas of the flight deck are being coated with Thermal Metal Spray to protect it from the extreme heat of the jets engines when landing and painting continues on the catwalks. Internally, systems are being commissioned and set to work. All four diesel engines have been fired up and load testing is underway. This month, the gas turbines were switched on for the first time and propulsion motors have successfully been running uncoupled. With each milestone, the buzz around the ship continues to grow!



Crossing the finishing line in London after an incredible 500 miles in only 5 days! Massive well done to all our HMS Queen Elizabeth Cycle Team!

## A MESSAGE FROM THE SENIOR NAVAL OFFICER

Dear Friends and Families,



I am delighted to once again introduce our termly Ship's Newsletter. As 2015 draws to a close I wanted to take a moment to recap on a busy and successful year for the crew of HMS Queen Elizabeth with a number of significant achievements, some of which are highlighted in this newsletter. The Ship's Company is now growing apace, with current numbers at 251 and will increase to 370 by the end of January 2016. It is great to see that the Ship's build is not only progressing but that the Ship's spirit and ethos is becoming stronger as our numbers increase and, with every day, we gel as a team.

Our move onboard in the summer is fast approaching and will require the continued hard work of the Ship's Company as the programme ramps up to ensure that we are fully trained and equipped to deal with the challenges that living onboard and sailing later in the year will bring. In the meantime, we all continue to work on plans to support these key dates as well as constantly learn new things about the Ship, write down our operating orders and procedures, and work hard with industry to commission the equipment onboard. It is a busy time for us all but there is some downtime with sport and adventurous training playing a significant part in our work life balance.

We have seen great engagement with our affiliations, partaking in a number of events such as the Edinburgh Zoo Sleep Out and the Lord Mayor's Show. We have welcomed the CO of FS CHARLES DE GAULLE, our twinned French Navy Carrier and a group of five were reciprocally hosted for a week long training exchange. We have trained, prepared for and successfully completed a Charity Cycle ride from Edinburgh Castle to the City of London's Guildhall (myself included!). One particular highlight was our Families Day in September. I was overjoyed to meet many families who were able to go on board for the first time.

I would like to thank all of our families, friends and affiliates for their continued support throughout the year, including The Royal Yacht Britannia who we have welcomed into the fold since the last newsletter. I wish you all a very happy, restful and peaceful Christmas.

*“Semper Eadem – Ever the Same”*



## POWERING TO LIFE

The Marine Engineering department has been extraordinarily busy working alongside our Industry Partners to bring the Ship's systems live. The first Diesel Generator was fired up for the first time in Rosyth earlier this year when Mr Philip Dunne, Minister of State for Defence Procurement, visited Rosyth, marking a huge milestone towards HMS Queen Elizabeth generating her own power. The 65,000 tonne flagship has undergone months of preparation work to start the first of her four Wärtsilä diesel engines, which are directly coupled to the General Electric generators. Together, each power unit weighs approximately 200 tonnes – the weight of approximately 200 family-sized cars. Months later, all four generators have now been fired moving us another step closer to becoming an operational warship. The diesel generator sets will be the main cruising engines for the Ship, but when higher speed is required, two MT30 Gas Turbine Alternators will also be used. Together they will produce 109MW of power, enough to power a medium sized town.

Warrant Officer Ian Howe said, "It's been a massive challenge to get this far but we are now starting to breathe new life into the Ship's Propulsion System. This is a wonderful achievement that has only been possible due to the great working relationship forged between the ACA/RN embedded commissioning engineers and its alliance partners. We are all working together to achieve a common goal which is to get this mighty floating "Power Station" to sea next year."

## LONG RANGE RADAR 'TURNING AND BURNING'



A huge milestone in the programme was achieved when the Long Range Radar (LRR) rotated for the first time. Members of the Weapon Engineering department flashed up the Ship's 'invisible eyes' as part of ongoing preparations to get the carrier ready for sea next year. The S1850M radar – the same as those fitted to Type 45 destroyers – is a large black slab weighing over 8 tonnes which sits on top of the forward island, above the Navigational bridge.

The radar has not been switched to full power – with hundreds of people working on her daily there are power and safety limitations to bear in mind - but even on 'restricted duties' the radar immediately began compiling an air picture, tracking aircraft on approach to Glasgow airport (40 miles to the west of Rosyth) as well as transatlantic traffic to and from the rest of the UK. On full power, the radar can track up to 1,000 aircraft simultaneously as far as 250 miles away from the ship. Central to getting the LRR was Petty Officer Ian 'Mac' McDonald and Leading Engineer Technician Colleen Dunne.

"Having been a part of the long range radar programme since it was delivered to Rosyth back in October 2013, it's very satisfying to see it 'turning and burning' – a milestone nearly two years in the making," said PO McDonald.

Live track integration activity between the radar and the Operations Room control panels is ongoing.



## DID SOMEONE SAY LUNCH?

Progress is well underway with the largest Galley in the Fleet as it nears completion and will soon be handed over to Ship's staff. There will be 40 chefs on board, and 67 catering staff in total which will be responsible for cooking and serving up to 1,600 meals a day.

Unlike any other ship in the Royal Navy, HMS Queen Elizabeth has its very own bakery onboard which can produce 1,000 loaves of bread a day! When Ship's staff move onboard next year, this galley will be up and running, serving food for all our sailors!



## DRIVING THE SHIP

The shiny new Integrated Navigation and Bridge System (INBS) has completed the first phase of Set to Work as the panels are flashed up for the first time. Shown in the picture, the INBS is a multifunction console system located in the Ship's Bridge which incorporates the electronic navigation systems and the Ship's navigation radar – this will primarily be used by the Navigator to plot and track exactly where the Ship will be going!

Meanwhile, on the other side of the Bridge, integration activity continues with the Operations Room consoles as live tracks from the Long Range Radar (which compiles the air picture) are transmitted via the Bridge.

The Ship's Company increase to grow as the Ship prepares for her Sea Trials next year. The photo shows how numbers have multiplied since the first crew joined in October 2012. Then there were 10, now there are over 250!



# CONTROLLING THE SKIES

HMS QUEEN ELIZABETH has now been fitted with the BAE Systems 3D Artisan radar that will allow the carrier to take full control the skies around it.

Due to deliver an uncompromising carrier strike capability anywhere in the world, the carrier faces a very different air traffic control challenge to the land-based equivalent. Changing locations, higher likelihood of adverse weather and support to tactical operations means that the carriers need a radar system that can excel in these tough conditions. Artisan 3D is designed to do just that.

Sitting on top of the after island and weighing just 700kg, the antenna took less than a day to fit and four members of the Weapon Engineering Department were key to this success. Artisan will provide a reliable tactical and air traffic control picture at medium range. This is down to its capability to detect over 800 fast moving targets, which could be travelling up to three times the speed of sound. It is also an effective tool in air defence and anti-ship operations. The radar is already deployed on other Royal Navy ships including HMS Iron Duke and fitted to HMS Ocean for exactly this purpose.

Installation of below decks radar equipment and services is well underway and set to work commenced last month.



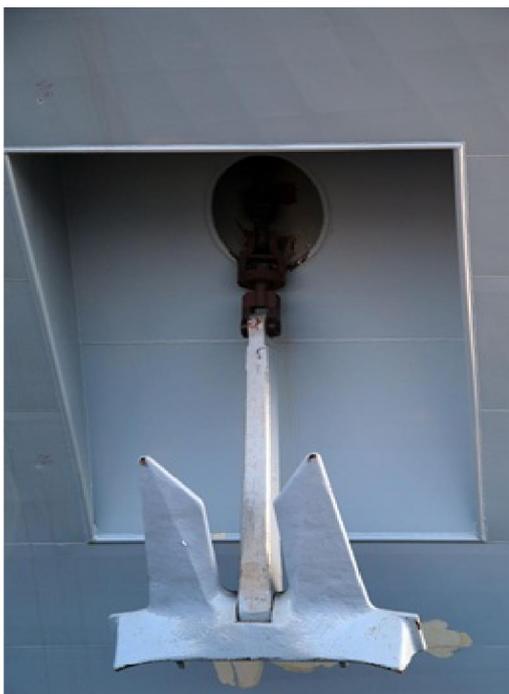
## TESTING - ANCHORS AWEIGH

The mighty anchors on Britain's biggest warship have been tested for the first time. Nearly as heavy as the jets which will operate from HMS Queen Elizabeth, the 13-tonne anchors were lowered on the carrier and into the huge basin in Rosyth where she is being completed.

The trial, involving engineers from the Aircraft Carrier Alliance and the Ship's seamanship specialists who'll be in charge of anchoring and mooring, was the latest in a series of tests gradually preparing the future flagship for sea next year.

To raise and lower the two anchors, the ship relies on even heavier cables of shackles – huge metal links. The port cable is more than 1,300ft long – 400ft longer than the carrier herself – and weighs around 90 tonnes (more than six Merlin helicopters). The starboard chain is slightly shorter and lighter (a mere 1,125 ft and 75 tonnes – or the weight of about five London buses).

The Ship's Bosun, Chief Petty Officer Jay Early who is responsible for seamanship explained "At 65,000 tonnes, everything about these ships is on a larger scale and the anchors are no different. Moving the anchor for the first time is a huge milestone in the programme and it was fantastic to watch it in motion as it was lowered into the water and back up again. For the newest joiners in my team, this was the first time they have actually seen the kit and there is no better way to learn than by doing. This is a great step forward as we continue to prepare the ship and make her ready for sailing next year."





## TOP CARRIER VISIT

During a visit to Rosyth this month, the Defence Secretary, Mr Michael Fallon, toured the in-built aircraft carrier, HMS Queen Elizabeth, as the Ship's gas turbines were fully up and running for the first time. These turbines are amongst the most powerful in the world and will provide the ship with enough energy to light up a town the size of Dundee and to take the giant 65,000 tonne ship up to its top speed while at sea.



## SAILORS' NEW CABINS

The first batch of the new temporary accommodation was officially handed over to MOD Caledonia in August for the crew of HMS Queen Elizabeth. Defence Infrastructure Organisation (DIO) Director Service Delivery, Leo O'Shea (pictured above with Writer Leanne Roberts) welcomed the first sailors to move in.

Leo said: "This has been a model of collaborative working demonstrating how DIO is delivering for Defence, in this case supporting the capability of our navy to defend British interests."

Captain Simon Petitt, Senior Naval Officer said: "MOD Caledonia has and continues to offer a fantastic level of support to the first crew of HMS Queen Elizabeth since they arrived in Rosyth in 2012. Then we were ten, now we are over 250, and that number will more than double next year as we prepare for sea trials. The accommodation is both modern and practical, and more importantly offers a real sense of home comforts for our sailors who are looking forward to moving in and being in one location so that we are all of one company."

Work is now progressing for the next phase of units, with the full 302 units being available by February 2016. Writer Leanne Roberts, who was among the first to move in to the new cabins, said: "As soon as I heard about the new accommodation being built, I volunteered to move in straight away. It's the best of both worlds, I have the luxury of my own en suite cabin but still feel close to my shipmates with use of the communal living spaces."

But Leanne and her colleagues were not the first Royal Navy personnel to stay in the Caledonia cabins. That honour went to First Sea Lord, Admiral Sir George Zambellas, who spent a night in the new accommodation with a number of his staff. Leanne said: "If it's good enough for the First Sea Lord, then it's good enough for me!"



## QNLZ TWITTER!

Not only are we embracing technology onboard the largest warship ever built for the Royal Navy, but we are also embracing the world of social media with HMS Queen Elizabeth's Official Twitter Page which went live this term. Supporting the new Twitter Page, the Senior Naval Officer, Captain Simon Petitt, held a live 'Chat with the Captain', answering over 50 questions as they fired in!

You can follow us @HMSQNLZ !

## LONGEST REIGNING MONARCH



Ship's Company teamed up with the Ship's newest affiliation the Royal Yacht Britannia to congratulate Her Majesty the Queen on becoming the longest reigning monarch as she surpassed Queen Victoria's length of time on the throne on 9 September. Mustering on the forecastle of the yacht, the digits 6-3 were spelt out to represent the number of years Her Majesty has been on the throne.

Meanwhile, back in Roysth, one of our talented chefs baked a great British cake in honour of the Ship's sponsor, Her Majesty the Queen. Leading Chef Suzanne Clark excelled with her naval bakery skills to create the work of art. Teaming up with Defence caterers Aramark, who kindly sponsored the event, the Ship's Senior Naval Officer, Captain Simon Pettitt proudly cut the cake which was later devoured by sailors during a celebratory morning break or as it's called in the Navy, 'stand - easy'. Captain Simon Pettitt said: "Her Majesty the Queen is a source of inspiration and pride for us all and it is exceptionally fitting that our longest reigning monarch is the sponsor of the longest ship ever built for the Royal Navy. Her Majesty's good strength and longevity will continue to resonate throughout the 50 year life of the Ship and on behalf of Her Majesty's Ship's Company, I send my best wishes for today and indeed for the future."



Marking the start of the Ship's newest affiliation, the evening included an exclusive tour followed by refreshments. For many, this was their first time on board and what a way to experience the prestigious yacht. Keeping the nautical spirit alive, the Ship's Company were delighted to pose for the camera in the stunning setting of the Main Reception Lounge.

## INAUGURAL FIELD GUN CREW

This marked the first time that HMS Queen Elizabeth entered into the annual RNRMC Field Gun Competition – hopefully the first of many. The Crew was chosen from the 160-strong Ship's Company when Track Training began, and hopes to compete again whenever the ship's programme will permit.

Each of our 18 highly disciplined, motivated, and physically fit field gunners, raced to assemble and disassemble the gun as the competition required, before dramatically dragging it home.

Although unlucky to finish third in the Plate 2 Final due to a crew member tripping before the finish line, the biggest victory was achieving the position of the 11<sup>th</sup> fastest crew out of 24 entries. However, managing to compete in the tournament and overcoming the hurdle of accruing a functional crew during the Ship's testing build period was also a victory in itself – and as the only Ship's Crew to enter, also winners of the Fleet Trophy. Warrant Officer Mick Ellison put the participants through their paces before the tournament as the Number 1 Trainer.

He said, "I am very proud of them, it was a proud moment to see all their hard work put into practice." To wrap up proceedings, the crew were treated to an evening on the Royal Yacht Britannia. Here, they were wined and dined before a number of presentations were awarded.

One particular award struck the heartstrings of many: the Field Gunner of the year was awarded to Petty Officer Kev Laing who has served in excess of 27 years and is sadly due to leave the RN next year.

A consummate professional and a very highly skilled member of Field Gun crews for many years, all felt that this was a fitting tribute to someone who is exceptionally well thought of, garnering the full trust and respect of the crew.



## EDINBURGH ZOO SLEEP OUT IN SUPPORT OF HOMELESSNESS CHARITY



Four members of the Ship's Company braved the cold as they swapped their cosy bed for a sleeping bag and camped out for the night, surrounded by the nocturnal sounds of Edinburgh's Zoo animal inhabitants. The event, championed by Lady Provost Elaine Brand, aimed to raise awareness of homelessness in the Ship's affiliated city of Edinburgh. The Lady Provost said she wanted people to open their eyes to what it is like for young homeless people during the colder months but admits the challenge will be nothing compared to the struggle faced by those who sleep rough every night. Lieutenants Emma Miles, Lee Bodkin and Ritchie Perfect and Leading Writer Graham Kerr joined local businesses and individuals in a bid to raise vital funds for Four Square and the Rock Trust to help young people get off the streets and into work. As part of their fundraising efforts, an HMS Queen Elizabeth bake-off took place, which revealed a level of cake-baking skills that Mary Berry would undoubtedly be impressed with.

## SAILORS TAKE ON TRAINING WITH GRENADIER GUARDS IN KENYA

Three sailors from the Ship's Company spent six weeks in Kenya earlier this year, training alongside our affiliated Grenadier Guards. Bringing an unusually nautical slant to the exercise, Leading Seaman Skyes, Templeton and Underwood were deployed on the ground in Infantry Sections. After a number of weeks preparing for the exercise in the UK, the first few days in Kenya were spent acclimatising before commencing Exercise Askari Storm. In what was an eye-opening experience, the first phase included basic soldering skills, section attacks and trench digging. As the days passed, the training ramped up and our sailors were employed by the Company Sergeant Major as the HQ Tactical Party. This included various tasks such as casualty evacuation and ammunition resupply. The exercise culminated in working with the Sappers to build assault and heavy duty bridges.

Leading Seaman Sykes said "We really enjoyed the experience; in some parts it was totally different to Navy training, but in others it was fairly similar and we were all able to bring something to the party. It's definitely not something I thought I would do but I'm really glad to have had the opportunity. I think we are all looking forward to returning the experience by introducing some of their soldiers to the delights of the Damage Repair Incident Unit on Whale Island when we go there as part of our Damage Control training."





## TRAINING THE FRENCH WAY!

You don't get a room with a view like this very often. But a group of personnel from HMS Queen Elizabeth did as they went on board the most powerful ship in Europe, FS Charles De Gaulle, for a week to observe flight deck operations and witness sea training. The visit was part of the UK's Long Lead Specialist Skills programme which aims to increase exposure to all facets of fixed-wing carrier aviation for RN personnel involved in the nation's future flagship. Joining the Ship in Toulon, the team spent five days at sea learning about routines, processes and manpower involved in delivering strike operations on board the traditional-style flat-top carrier.

## TRAVELLING IN STYLE!

Members of the Ship's Company were honoured to be part of the Lord Mayors Show in London this year as they joined the 7,000 participants to mark the 800 years since the first show. In a tale of two halves, one groups paraded alongside LED screens showcasing the Queen Elizabeth Class Carrier's build programme whilst the second groups travelled in style beside the stunning Jaguar C-X75 from the latest Bond film, Spectre. The appearance marks the start of a partnership between the Ship and Jaguar Land Rover. Captain Simon Petitt, Senior Naval Officer, said: "I am delighted that Jaguar Land Rover are supporting HMS Queen Elizabeth and I look forward to a long and fruitful association."



## 500 MILES IN 5 DAYS CYCLE TO SUCCESS!



Fifteen sailors from HMS Queen Elizabeth cycled their way to charity success covering an impressive 500 miles in just 5 days. Joined by five of their industry partners from the Aircraft Carrier Alliance, the 20-strong cycle team which included the Senior Naval Officer, Captain Simon Petitt, brought together the Ship's two affiliated cities of Edinburgh and London in support of the Royal Navy and Royal Marines Charity. In what has been their biggest challenge to date, the team were waved off from Edinburgh Castle by the Lord Provost Donald Wilson and after 5 gruelling days in the saddle, were welcomed by the Lord Mayor of City of London at the finish line outside the Guildhall. In recognition of their tremendous efforts, Admiral Sir George Zambellas, First Sea Lord and Chief of the Naval Staff, was joined by former model, Jodie Kidd to personally greet the team upon their arrival into London. Led by team captain, Petty Officer Michael 'Mini' Cooper said: "This is by far the cycle team's biggest achievement to date. "We are extremely proud to have raised such a large sum of money for a very worthy charity and one that is close to our heart."

Raising a whopping £7,500.00, the team were delighted to hand over a cheque for £7,451.43 to Mr Bill Thomas, Chairman of the Royal Navy and Royal Marines Charity, earlier this term. Receiving the cheque, during his visit to Rosyth, the charity's Chairman said: "It has been an honour to celebrate the achievements of the HMS Queen Elizabeth charity cyclists here in Rosyth. The fundraising efforts of her Ship's Company know no bounds and we're proud to be the affiliated charity of the carrier. Thanks to their ongoing support we are able to ensure every generation of the Ship's Company are supported throughout their lives. The fundraising efforts of her Ship's Company know no bounds and we're proud to be the affiliated charity of the carrier."

## PREDECESSOR BIRTHDAY RUN!

One hundred and two years after battleship HMS Queen Elizabeth – the largest, most powerful and most advanced warship ever built for the Royal Navy – ten crew of today's carrier – also the largest, most powerful and most advanced warship ever built for the Royal Navy – hit the roads of Scotland.

For the third year running (quite literally!), a group of sailors kept the tradition going with a 40 mile run to celebrate the launch of the Ship's predecessor's over a century ago. Covering one of Scotland's most iconic ultra-distance marathon routes, the team relayed the Two Bridges Road Race which was run 38 times between 1968 and 2005, before it unfortunately came to an end. In relays, the team left their ship in Rosyth Dockyard to cover the circuit heading upstream to the Kincardine Bridge, across it on to the south bank of the Forth, then downstream to the road bridge at Queensferry, back over the river and into the yard. And all in an impressive seven hours!



## HMS QUEEN ELIZABETH'S WALL OF FAME!



Warrant Officer Kevin Fudge was awarded the Worshipful Company of Grocers Medal for his commitment and hard work over the past year.



Leading Seaman Steven Craig was presented with his Long Service and Good Conduct Medal (LSCG) by our Senior Naval Officer, Captain Simon Pettitt, earlier this term.



Logistician Robert Burrill, received the prestigious Robert Florence Trophy for his academic achievements during his Supply Chain training.



In recognition of their outstanding contribution to the success of the Ship's Naming Ceremony on 4 July 2015, the combined team Communications Team received the Chief of Defence Materiel Award which was presented earlier this term by Sir Bernard Gray in London.

*Pictured from left to right: Captain Andy Gregory RM (RM Band Scotland Director of Music), Fred Armstrong (Babcock), Colin Fynn (DES Ships), Commander Mike Dineen (HMS QUEEN ELIZABETH Executive Officer) and Kirsty Noble (Babcock).*



Well done to Petty Officer Daniel Hill who has been selected for the Antarctic 2016 expedition!



HMS Queen Elizabeth Golf Team on one of their many annual tours in sunny Drumoig and Scotsraig.



Keep up to date with the latest news from HMS QUEEN ELIZABETH at [www.royalnavy.mod.uk](http://www.royalnavy.mod.uk) and at Twitter @HMSQNLZ

