



SIR DAVID ATTENBOROUGH

RRS SIR DAVID ATTENBOROUGH



CAMMELL LAIRD



Ice breaker: The ship is capable of breaking through ice up to 1m thick at a speed of 3 knots (5.6 km/h).

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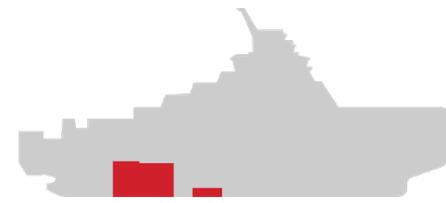
CAMMELL LAIRD

Founded in 1828, Cammell Laird is one of the most famous names in British shipbuilding and is based on the River Mersey in Birkenhead. The site covers 130 acres and includes four dry docks, a large modular construction hall and extensive covered workshops. It is also at the centre of a marine and engineering cluster with easy access to support services, classification societies and port state authorities.

Today, Cammell Laird is rapidly expanding as a cutting-edge engineering services specialist with a highly skilled workforce and extensive world-class facilities to support a broad range of sectors and projects. The company has continued to develop its capability in the marine sector, and is a world leader specialising in military ship refit, commercial ship repair, upgrade and conversion and shipbuilding.



RRS *SIR DAVID ATTENBOROUGH*



Yard No. 1390

Polar research vessel commissioned by the Natural Environment Research Council (part of UK Research and Innovation), built by Cammell Laird to a Rolls-Royce design and operated by British Antarctic Survey.

To be named RRS *Sir David Attenborough*

Launched: July 14, 2018 at 12.25 hrs

Naming ceremony: September 26, 2019

Length: 129m; beam: 24m; weight: 15,000 gross tonnes

Scientific cargo volume of approximately 900m³

Endurance: up to 60 days

Range: 19,000 nautical miles at a cruising speed of 13 knots (24 km/h)

Ice breaking capability: up to 1m thick at 3 knots (5.6 km/h)

Bow and stern thrusters for excellent dynamic positioning in challenging conditions

Launch and recovery of aerial and ocean robotic systems

Crew: approx. 30

Accommodation for up to 60 scientists and support staff



RRS *Sir David Attenborough*'s 535-tonne superstructure is craned into position on top of the hull.

WELCOME TO CAMMELL LAIRD

On behalf of the entire workforce, it is my great pleasure to welcome you all to Cammell Laird for the official naming of RRS *Sir David Attenborough*. This is a landmark day in our company's history and another important milestone in the journey of this truly unique ship – a state-of-the-art polar research vessel that is set to transform how ship-borne science is conducted in the Arctic and Antarctic.

This mighty ship is at the forefront of engineering technology and will be a safe haven for scientists and crew in the harsh Polar Regions for decades to come. She pushes the boundaries of science and engineering endurance, and represents Cammell Laird's re-emergence as a global maritime engineering company.

Sir David is known to all and has inspired a nation by bringing the amazing and varied species of our planet into our living rooms. He has been instrumental in highlighting the catastrophic effects of sea and air pollution on our natural world, and in doing so has motivated world leaders to change international environmental policy. RRS *Sir David Attenborough* is a fitting tribute to the man whose endeavour to explore the unknown and bring science to life epitomises the intent of this wonderful ship.

Cammell Laird is a family at the heart of Merseyside. Teamwork is at the heart of our success. This achievement has been possible because of the unyielding support of our workforce and their families, our supply

chain partners together with the entire Wirral Borough Council team past and present. I would particularly like to thank the Natural Environment Research Council and British Antarctic Survey for placing their trust in us to deliver the largest specialist commercial vessel to be built in the UK for 30 years. This is one team, 'team UK', working in partnership to deliver a unique ship with unique capabilities and capacity.

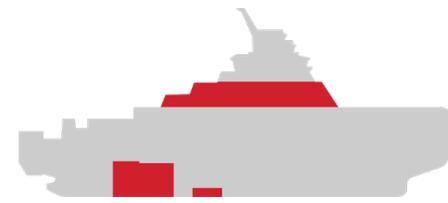
The building of RRS *Sir David Attenborough* takes Cammell Laird to a new level and sends out a clear message that great British engineering is here on Merseyside. Together with our partners we will strive to adapt and meet the challenges of the future in order to provide opportunities for generations to come.

John Syvret CBE, Executive Chairman, Cammell Laird





SIR DAVID ATTENBOROUGH



Britain began exploring the Antarctic over a century ago when it seemed to be an empty wilderness of little importance to the world as a whole. Now we recognise that what happens at the Poles is of the greatest importance to everyone, everywhere.

What the British Antarctic Survey has discovered is that the Antarctic, far from being remote and desolate, is key to understanding what is happening in the entire globe. What we do affects what happens down there, just as what goes on down there affects the whole of the earth on which we live.

Everybody's future will be affected by what people working on this vessel, British scientists and others, will be discovering in years to come. As far as I am concerned, to see this magnificent ship with my name on it is the greatest possible honour.

I thank everyone who has been involved in this wonderful enterprise and wish them huge success when this marvellous ship gets down there in the Antarctic, which we thought was so remote but realise now is absolutely crucial to the future of all of us.



John Syvret CBE, Cammell Laird Executive Chairman, with Sir David Attenborough.

THE RT HON CHRIS SKIDMORE MP

MINISTER OF STATE AT THE DEPARTMENT FOR BUSINESS, ENERGY AND INDUSTRIAL STRATEGY

The UK has a proud history of research and innovation, and the Government is dedicated to upholding the UK's position as a science trailblazer. Brilliant ideas know no borders, and initiatives like the RRS *Sir David Attenborough* will keep the UK at the forefront of global endeavours by helping to tackle some of our greatest environmental challenges.

RRS *Sir David Attenborough* is the most significant part of a £200 million Government commitment to Antarctic research – our largest investment in polar science since the 1980s. By scouring some of the deepest and previously inaccessible depths of the Polar Regions, this exceptional vessel will provide invaluable insights into the changing nature of our planet.

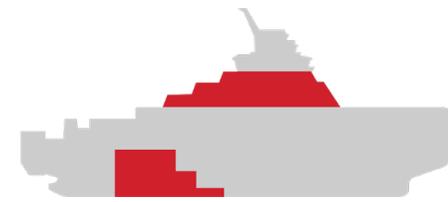
This infrastructure marks a crucial step forward in developing greener and more economical ship-borne science. With greater fuel efficiency than its predecessors, and an ability to use remotely-operated robotic technologies, the ship is expected to reduce both the environmental impact of these vessels and save more than £100 million in operating costs over its 30-year lifespan.

It is more important than ever for the UK to engage globally to address the challenges our changing world is facing. This ship will not only be essential in helping us to secure vital national research partnerships in the future, but it will also will help maintain our worldwide reputation as a science superpower.



The Rt Hon Chris Skidmore MP, Minister of State at the Department for Business, Energy and Industrial Strategy speaking at the EUREKA Global Innovation Summit 2019

PROFESSOR DUNCAN WINGHAM



EXECUTIVE CHAIR, NATURAL ENVIRONMENT RESEARCH COUNCIL PART OF UK RESEARCH AND INNOVATION

In the UK's new polar ship, now named the RRS *Sir David Attenborough*, we have one of the most advanced polar research vessels in the world to help us understand more about science in extreme environments.

It will help us understand more about how to tackle one of our most urgent and pressing issues – global climate change as well as the impacts of acidification and pollution – there is certainly no shortage of work for this fine ship.

Following completion of the planned technical sea trials and scientific equipment testing, scientists will have greater enhanced scientific capabilities made available by access to state-of-the-art facilities on this floating research platform.

This new vessel will transform how ship-borne science is conducted in the Polar Regions and is just part of the Government's investment in polar infrastructure through the Natural Environment Research Council - designed to keep UK science at the forefront of world-leading research in Antarctica and the Arctic.

Everybody who sails on this ship will rely on the quality of the build of this ship. The RRS *Sir David Attenborough* stands as a tribute to the workers and the yard that have helped create a research vessel that we can all be proud of and allow more world class research in some of this planet's most inhospitable and challenging environments.



Launch day: Professor Duncan Wingham, executive chair Natural Environment Research Council (NERC), speaking at the hull launch ceremony

PROFESSOR SIR MARK WALPORT

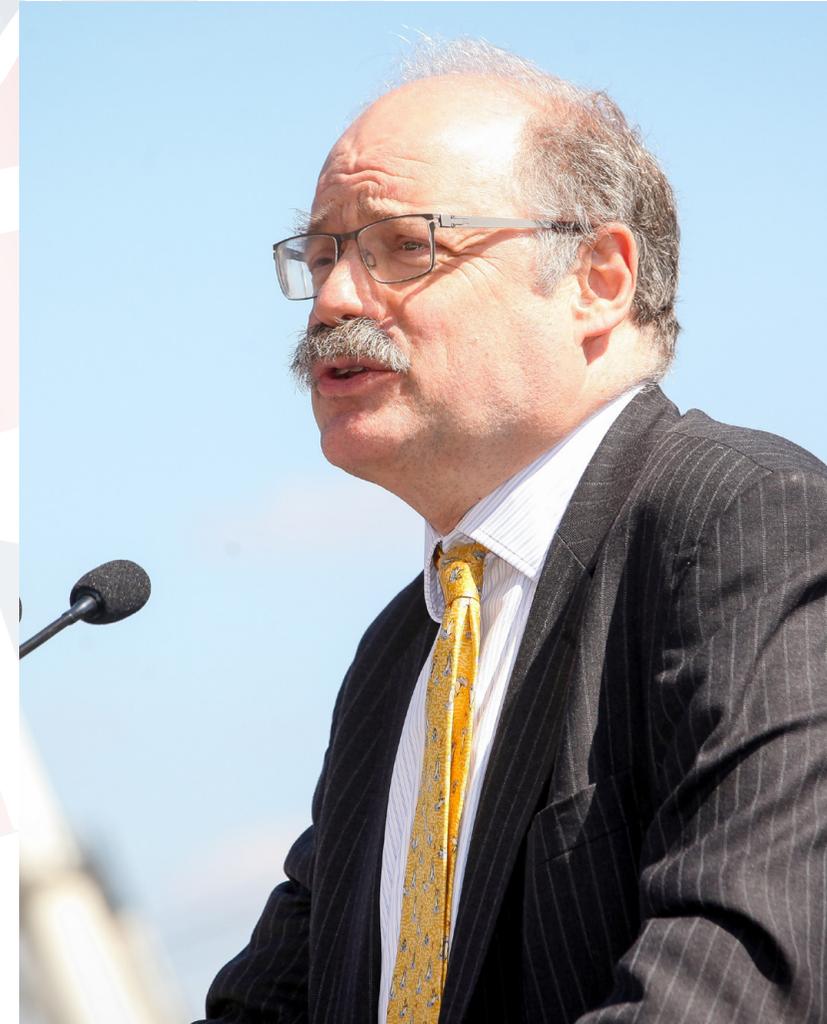
CHIEF EXECUTIVE, UK RESEARCH AND INNOVATION (UKRI)

Our mission in UK Research and Innovation is to work with our partners here and around the world to ensure that our world-leading research and innovation continues to build on its enormous strengths. At a time of national and global change it is crucial that the UK continues to provide the best possible environment for research and innovation to flourish.

RRS Sir David Attenborough will deliver world-leading research to help tackle the environmental challenges of our age, including climate change and protecting our oceans. Some of the greatest effects are in some of the most inaccessible parts of our planet, in the Polar Regions, and so to research what is happening in the Polar Regions both above and below the surface requires exceptional infrastructure.

This ship will form part of that vital infrastructure and marks a great step forward for polar research of national and global importance. It will be a vehicle for international research partnerships, continuing the UK's reputation for research and innovation excellence.

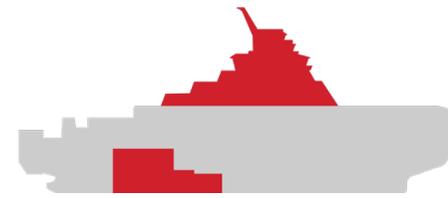
RRS Sir David Attenborough is also a crucial tool for diplomacy and for public engagement with polar issues around the world. It is more important than ever that we engage with public audiences about science, engineering, technology, the social sciences, the humanities and the arts, which all need to work together if we are to understand and communicate the changes that are happening in the Polar Regions and in the environment around the world.



Professor Sir Mark Walport, Chief Executive, UK Research and Innovation (UKRI), speaking at the hull launch in July 2018.

PROFESSOR DAME JANE FRANCIS

DIRECTOR, BRITISH ANTARCTIC SURVEY



The scientists, engineers and support teams at British Antarctic Survey – especially those mariners and project managers who have been working closely with the amazing teams at Cammell Laird – are tremendously excited to reach this milestone. It is an incredible achievement, and one that everyone in the country can be proud of.

This state-of-the-art research ship is going to take us to the polar oceans, the Arctic and Antarctica, and we know now that it is the polar oceans that will give us clues about what is happening to the change on our planet.

RRS *Sir David Attenborough* is specially designed to operate in the roughest sea and ice conditions, allowing us to extend the time that we can work, the places we can go and the kind of science we can do in the future. We will be able to take more scientists on board than we have ever been able to do before. It will allow us to carry out multi-disciplinary science, with several projects working together, which is what we need to understand what is going on in the Polar Regions.

I would like to thank all the people in the shipyard. It is really fantastic that Cammell Laird has this contract because we have been able to work very closely and visit often. Many engineers have become good friends and become a family. Indeed, many people from the ship project team and British Antarctic Survey have actually moved to the area to be able to work on this ship, so it really has been a family effort.

I thank everyone for their dedication to the project and their work to support all the great science we are going to do in the future.



Launch day: Professor Dame Jane Francis, Director of British Antarctic Survey, watches the hull launch with Sir David Attenborough.

RRS *SIR DAVID ATTENBOROUGH*

A NEW POLAR RESEARCH SHIP FOR BRITAIN

“It may sound frightening, but the scientific evidence is that if we have not taken dramatic action within the next decade, we could face irreversible damage to the natural world and the collapse of our societies.”

Sir David Attenborough.

The threat posed to the entire planet by climate change has never been clearer. Britain, as the first country to pass a climate change act, has led from the front and RRS *Sir David Attenborough* will now join that fight by transforming how ship-borne science is conducted in the Polar Regions.

TEAM UK

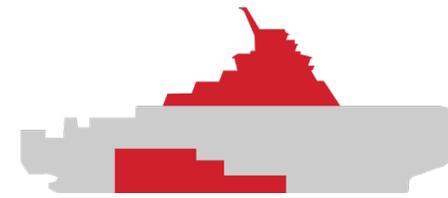
One of the most advanced polar research vessels in the world, RRS *Sir David Attenborough* has been commissioned by the Natural Environment Research Council (part of UK Research and Innovation), designed by Rolls-Royce, built by Cammell Laird and will be operated by British Antarctic Survey. Funded by British taxpayers as part of a £200m UK government investment in polar exploration and research, it is a magnificent ship the whole nation can be proud of, and one that will keep us at the forefront of world-leading research in Antarctica and the Arctic.

A PLATFORM FOR CUTTING-EDGE SCIENCE

RRS *Sir David Attenborough* has been designed to support the work of scientists from various areas of expertise. A wide range of specialist laboratories, facilities and instruments will enable them to generate new knowledge and understanding about the societal implications of environmental change from the atmosphere to the sea bed.

Data from the deep ocean and inaccessible under ice locations will be captured using robotic and remotely operated devices. Echo-sounding equipment will support biological and geophysical investigations. Biological sampling nets will be used for ecosystems and biodiversity research, while clean air and aerosol sampling technology will enable scientists to tackle atmospheric science questions of key global relevance.

She will be the first British polar research vessel to feature a scientific moon pool, allowing for the flexible and reliable deployment and retrieval of scientific equipment such as remotely operated vehicles and autonomous underwater vehicles.



LIFE ON BOARD

RRS *Sir David Attenborough* will have a crew of approximately 30 people, and has accommodation for up to 60 scientists and support staff. The vessel's cabins have a high level of natural light and are located away from sources of noise and vibration to improve comfort. A coffee room and a recreation area will provide opportunities for rest and relaxation, and a fitness centre will allow the ship's crew to stay active. There is a hospital on board should anyone need medical attention.

ENVIRONMENTAL CREDENTIALS

The vessel is required to conform to stringent environmental regulations and is the first UK-built ship that is Polar Code compliant. Four main Bergen engines operate on ultra low sulphur fuel, and two treatment plants will handle sewage and domestic wastewater.

The ship has also been designed to have extremely low internal and underwater radiated noise levels. Not only is this important for the operation of sensitive acoustic and seismic equipment, it will improve conditions for the crew and minimise any disturbance to marine wildlife.

The vessel's design optimises her ability to support science in extreme environments and she will be available year-round to the whole UK research community. Thanks to greater fuel efficiency and an ability to use remotely operated and robotic technologies, the ship is expected to reduce the environmental impact of ship-borne science and save more than £100m in operating costs over her 30-year lifespan.



RRS *Sir David Attenborough* is one of the most advanced polar research vessels in the world, designed to support science in extreme environments.

OPERATIONAL FACILITIES

As well as being a scientific research platform, RRS *Sir David Attenborough* will support the resupply of the five Antarctic research stations operated by British Antarctic Survey. The ship has a 2,100m³ cargo hold and an array of lifting equipment that includes a 50t main crane. A workboat known as Erebus will transport personnel and supplies to island stations, while a cargo vessel known as Terror will transfer supplies including food, fuel and science equipment on to land and at stations and places that the RRS *Sir David Attenborough* cannot access. A helideck and hangar capable of supporting two small helicopters further extends the ship's operational capabilities.

RRS SIR DAVID ATTENBOROUGH

Once you have set eyes on the RRS *Sir David Attenborough*, you won't forget her. Measuring in at 129 metres, the ship is as long as 10 buses and weighs 10,400 tonnes – that's 1,400 elephants. Built by Cammell Laird to a Rolls-Royce design and kitted out with state-of-the-art facilities, the ship will push the boundaries of polar science and exploration.

The ship has beds for **30 CREW** and **60 SCIENTISTS** and **SUPPORT STAFF**.

It is made up of **1 MILLION** pieces of steel, and contains over **30 KM** of pipes and more than **750 KM** of electric and data cables.



CTD (Conductivity, Temperature, and Depth) – a collection of sensors deployed overboard to detect how the salinity (salt levels) and temperature of the water column changes relative to depth

Scientific winch system deploys equipment, such as rock drills, overboard

Science crane

Main cargo crane (50 tonne)

Scientific hangar

Side A-frame deploys sensor equipment overboard
Winch control room

Crane

Satellite communications

Bridge

Crane

Helideck

Officer and crew cabins

Bar, lounge and mess room

The ship is capable of spending **60 DAYS** at sea without being refuelled, allowing her to embark on longer voyages than any other UK polar research vessel.



Cargo tender "Terror" delivers people and supplies to land

Hull designed to break through ice one metre thick

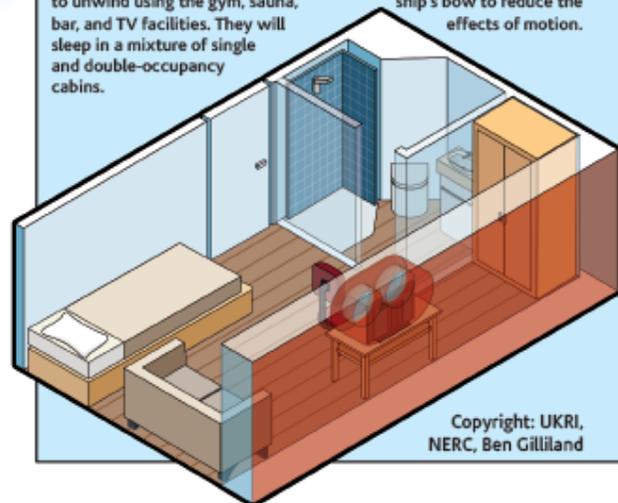
LABORATORIES & WORKSPACES

There will be 14 laboratories on board and at least 10 shipping containers with scientific equipment that can be reconfigured to keep up with changing technologies and techniques.

LIVING ON BOARD

Scientists and crew will be able to unwind using the gym, sauna, bar, and TV facilities. They will sleep in a mixture of single and double-occupancy cabins.

Cabins are located away from the ship's bow to reduce the effects of motion.

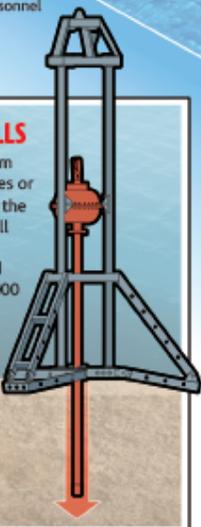


Copyright: UKRI, NERC, Ben Gilliland

Work boat "Erebus" transports personnel and supplies

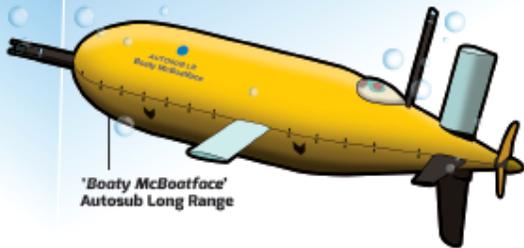
ROCK DRILLS

Deployed from the stern, sides or moonpool of the ship, drills will sample soft sediment and rock up to 2000 metres underwater.



ENGINES

The engines will run as silently as possible to avoid interference with the 'ears of the ship', acoustic instruments, which use echo sounders to measure life in the water and map the sea floor.



'Boaty McBoatface' Autosub Long Range

MOON POOL

Scientists can lower and raise equipment (such as ROVs) through the moon pool, a vertical hole running through the hull of the vessel. This makes it easier and safer to deploy scientific equipment in the rough polar oceans and ice-covered waters.

ROV (remotely-operated underwater vehicle)

MARINE ROBOTICS

The ship will act as a central platform for deploying state-of-the-art autonomous and remotely-operated vehicles. These will explore untouched parts of the ocean and atmosphere. Remotely controlled vehicles will be connected to the ship and powered via a cable – just like an umbilical cord. Autonomous underwater vehicles, like the 'Boaty McBoatface' Autosub Long Range, will have no link to the ship and will travel deep beneath ice shelves and at the edge of active glaciers.



RRS SIR DAVID ATTENBOROUGH

NERC
UT 851

TONY GRAHAM AND PAUL OWEN

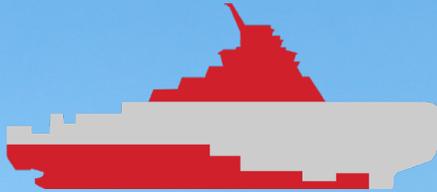
CAMMELL LAIRD

Joint statement from Tony Graham, Cammell Laird Chief Operating Officer, and Paul Owen, Cammell Laird Managing Director

The Cammell Laird built RRS *Sir David Attenborough* is the world's most capable polar research ship. The project publicly demonstrates the renaissance of UK commercial shipbuilding. RRS *Sir David Attenborough* is a powerful symbol of the UK's vision for global science. The vessels 'red and white' livery represents the blood, sweat and tears expended during construction. RRS *Sir David Attenborough* now stands as a living monument to the passion and skills on the Mersey, the vision and faith of NERC, the professionalism of British Antarctic Survey; and the enduring commitment of UK government. RRS *Sir David Attenborough* has been built to navigate the roughest seas and to travel to the furthest corners of the earth. It is fitting that the vessel carries the name of Sir David Attenborough and the Cammell Laird builders plate. Everyone involved can be rightly proud of their individual efforts and the collective achievement.



L-R: Tony Graham, Cammell Laird Chief Operating Officer, and Paul Owen, Cammell Laird Managing Director.



CAMMELL LAIRD
NERC
UK Research and Innovation
RRS Sir David Attenborough (Hull No 1390)
CAMMELL LAIRD

SIR DAVID ATTENBOROUGH

Soldiers from 208 (3rd West Lancs) Battery "The Liverpool Gunners" firing a blank round to celebrate the hull launch of RRS *Sir David Attenborough*.

INTERVIEWS

THE RT HON CLAIRE PERRY MP, FORMER MINISTER OF STATE FOR ENERGY AND CLEAN GROWTH AT THE DEPARTMENT FOR BUSINESS, ENERGY AND INDUSTRIAL STRATEGY

Bearing the name of a man who I think has done more to inspire our nation in the area of natural science and conservation than anyone else today, RRS *Sir David Attenborough* is a tour de force of British design and engineering, and a living example of all the best things that can happen when we work together.

This ship represents the next phase of something we should all be so proud of – our unbroken UK leadership in the area of polar and maritime exploration and understanding. It will be a critical piece of scientific instrumentation in the front line of understanding the impact and effect of what I think is one of the biggest challenges humanity has ever dealt with – what will climate change do to our planet and how do we tackle it?

There is another hugely important reason to invest too, and that is to inspire the next generation of scientists and engineers, and make them want to come and work in places like this incredible setup on the Mersey. Every pound invested in this ship and in polar exploration is an investment in the future. It is a down payment on the benefits that will come from stopping global warming, from protecting our planet from run away plastics pollution, and for inspiring the next generation to want to solve these scientific problems and bring their knowledge to fantastic places like Cammell Laird to actually deliver the tools we need.

CAPTAIN RALPH STEVENS, BRITISH ANTARCTIC SURVEY

RRS *Sir David Attenborough* is the most advanced ship we have ever built and we have had to be very careful in getting the correct balance between adopting new technology and going with tried and tested things we know will work – I think we have got that just right. Working closely in partnership with the shipyard team has given us the opportunity to get the vessel exactly how we need it as an end user.

JORDAN HOPE, CAMMELL LAIRD APPRENTICE

Working on RRS *Sir David Attenborough* has been a great opportunity and a great experience as well. It has definitely helped my development as an apprentice as we have learnt such a multitude of skills. I have been working on different parts of the ship and with different tools, all the while gaining a vast knowledge of the ship. It meant a lot to see the ship coming down the slipway at the launch event. It made me very proud, as I can say I have been a part of the project and contributed to the success of the ship.



INTERVIEWS

ANDY JEFFRIES, PROGRAMME MANAGER, BRITISH ANTARCTIC SURVEY

One of the current British Antarctic Survey vessels is nearly 20 years old now so RRS *Sir David Attenborough* represents a step-change in technology. We have tried to future-proof the ship as much as possible to have the latest scientific instrumentation on board. We will be able to take readings that we have never taken before, and use the latest technology such as marine robotics and aerial drones.

The scientists come from all different disciplines and one of the key design parameters of this ship is so they can work together. In the past you may have had biologists working individually and physicists working on their own, now we want to bring all the disciplines together so we can find the synergies and the full scientific solutions to the problems that exist.

JOHN DRUMMOND, PROJECT DIRECTOR, CAMMELL LAIRD

Fabricating and building RRS *Sir David Attenborough* has been an absolute team effort that has allowed us to utilise our core skills of welding, plating, pipe fitting and mechanical fitting. This is the largest commercial vessel to be built in the UK for 30 years, with the contract won against fierce competition from yards in Europe and the Far East. I am exceptionally proud of what the entire workforce has achieved. They take pride in what they are doing and that is demonstrated by the quality of the vessel that has been produced.

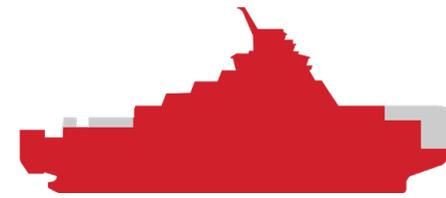
CLAIRE BIGGAR, ASSISTANT SHIP MANAGER, CAMMELL LAIRD

To coordinate a project of this size has definitely been a challenge because of the sheer number of trades involved in everything from the building of the hull, right up to the furniture and the carpets. It has been an incredible experience being part of that team and seeing everyone pull together to meet that challenge. I was a little nervous, but also really, really excited to see the ship going down the slipway last July. She is a huge ship and it is wonderful to see her in the water with the backdrop of Liverpool behind.





NATURAL ENVIRONMENT RESEARCH COUNCIL (NERC)



ALLAN EVETT, PROCUREMENTS SPECIALIST, RESEARCH COUNCILS UK

As procurement lead for this project it is great to see the RRS *Sir David Attenborough* so near its completion and ready to be deployed into active service. I have been working on this project since 2014 and I feel tremendous pride and satisfaction in seeing the ideas, innovation and hard work from myself and the rest of the project team materialise into an advanced multi-disciplinary ship which will be able to make such a difference to polar and marine sciences.

NIGEL BIRD, NERC PROJECTS AND COMMERCIAL DIRECTOR

People deliver projects, and great people, working hard side by side, have created this fantastic ship. It has been my role to bring the right people together to enable the transformation of our future scientific vision into cold hard steel. From Accountants to Zoologists it has taken an alphabet of skills to complete the task. I am proud to be part of the team.

DANI DURSTON, HEAD OF INFRASTRUCTURE DELIVERY & ASSURANCE

Working on the project from the beginning has allowed me the privilege of seeing the ship progress from the original spreadsheets and business case to become a floating icon for Polar science. It has been rewarding from a project management viewpoint to watch as the early visions and concepts have been brought to life, such as the scientific moon pool which is a first for a NERC ship and allows the safe deployment of innovative science equipment whilst at sea and in ice. The naming ceremony celebrates reaching another key milestone as we move towards her first season of polar exploration of which I am very proud to be part of.

WIRRAL BOROUGH OF CULTURE 2019

Wirral's shipbuilding heritage has been thrust into the spotlight as the peninsula celebrates its year as Borough of Culture for Liverpool City Region. A packed programme of cultural and sporting events began in spring, aimed at celebrating everything that makes Wirral an incredible place to live, work and visit.

Highlights have included the **Animated Square Revisited** projection show at Hamilton Square, the **River Festival Wirral**, the **OVO Energy Tour of Britain** and **Wirral Food & Drink Festival** at Birkenhead Park, and the **Walker Cup** golf tournament at Royal Liverpool Golf Club in Hoylake. Upcoming events include **River of Light**, a spectacular waterfront fireworks display due to take place on November 3.

Made of Iron, a series of exhibitions and cultural events celebrating the story of Wirral's shipbuilding and maritime heritage launched in May and has formed a key part of the Borough of Culture celebrations. Cammell Laird is proud to be supporting the season's opening exhibition, **Six Vessels**, which is being held at Williamson Art Gallery & Museum until Sunday, September 29. **Six Vessels** makes use of artwork and rarely seen artefacts to chart the stories behind HMS Birkenhead, Ma Robert, CSS Alabama, HMT Leasowe Castle, HMS Ark Royal and RMS Mauretania.

Other highlights in the Made of Iron season have included **Down Our Street**, a musical play by Wirral writer Brian McCann staged at the Floral Pavilion. The show celebrates life in the Cammell Laird shipyard from the industrial revolution to the present day with drama, comedy and song.

A Community Made of Iron seeks to create a digital archive of stories, photographs and artefacts capturing the social history and experiences of workers, families and communities linked to Wirral's shipbuilding and maritime heritage.

Later this year, the Royal Court Theatre in Liverpool will present **Close Enough to Touch** at the historic Birkenhead Priory, which sits next to Cammell Laird's shipyard. The play is a dramatic retelling of the tragic story of the HMS Thetis, which sank in 1939 with the loss of 99 lives.

ICE WORLDS



A FESTIVAL OF DISCOVERY

The ceremonial naming of the RRS *Sir David Attenborough* is the premium event in a four-year public engagement campaign to raise global awareness of the commission of this ship by the Natural Environment Research Council, the build by Cammell Laird and the future missions that will be carried out by scientists from British Antarctic Survey and UK universities.

Ice Worlds is an immersive and exciting three-day festival of discovery that aims to inspire anyone who visits. All of the partners involved in the creation of this ship share a common goal to engage with public audiences about science, engineering, technology, social sciences and the arts. We have worked together to create an experience that will help communicate the environmental changes that are happening in the world now.

When people step into Ice Worlds they will be inspired by a successful science and industry partnership that demonstrates everything that is great about UK polar research and UK shipbuilding. A special day dedicated to schools gives the young people of Wirral and Liverpool a glimpse of what their future might be.

This focus on the future challenges young people to consider if they have what it takes to be polar scientists and engineers; and helps them

to discover the world of the marine engineering apprentice. Scientists and engineers explain what it is like to work for organisations that shape future polar science and engineering.

Enter Ice Worlds and discover why the Polar Regions matter for our changing environment. Talk to the crew of the RRS *Sir David Attenborough* to find out what the ship will do in Antarctica.

In December 2019, the UK will mark the 60th anniversary of the signing of the Antarctic Treaty – an international agreement that preserves and protects the continent for peace and science. What better way to start this commemoration than the ceremonial naming of this magnificent new polar research ship.

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