



# Divulged

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Over a decade providing Australia's submarine rescue service.

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A world first and significant technical triumph!

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JFD continue to operate NATO's submarine rescue service.



# 10 years of Black Carillon!

JFD Australia has been providing the trusted and proven submarine escape and rescue service to the Royal Australian Navy (RAN) for more than a decade and is “a safe pair of hands” when it comes to saving the lives of submariners.

And it was this unrivalled experience and expertise in Australia’s challenging ocean environment that was on display in the annual Black Carillon submarine rescue exercises off Western Australia in partnership with the RAN.

**“Submarine rescue is and will always be about keeping submariners safe,” said JFD Australia Managing Director, Toff Idrus.**

**“Australia has its safest ever submarine rescue system, a fully integrated solution that can save the lives of our submariners and, if called upon, the lives of submariners around the world.”**

JFD Australia’s fully-integrated, modern and air-transportable sovereign capability which includes a submarine rescue vehicle, a transfer-under-pressure chamber and a state-of-the-art hyperbaric equipment suite, means it has the ability to not only save submariners from a disabled submarine but to also treat them, simultaneously if needed, once they are safely out of the water.

In Australia this certified capability supports the nation’s Collins-class submarines (with a crew of up to 60 personnel) and is “rescue ready” at just 12 hours’ notice to respond to an underwater emergency.

Keeping submariners and other defence force personnel safe is our highest priority.

**Watch our Black Carillon 2020:  
A decade of submarine rescue video here:  
<https://youtu.be/FaK5MsuAX70>**



## World’s first 500m Portable Saturation Diving System

The 500m Portable Saturation Diving System successfully completed its commissioning phase of the project in China in December 2020.

During the commissioning phase, the project team faced new challenges brought about by COVID-19. The project team had to overcome the difficulties of manpower mobilization, local safe distancing requirements and extended duration of commissioning due to the limited JFD headcount available to work on site.

Even with these uncertainties, the mission focused team completed the commissioning for JFD to deliver a key milestone to the client, proving that no mountain is too high to climb for JFD!

JFD designed and built the systems incorporating advanced, state-of-the-art technology which will allow the safe conduct of 500m diving, which is significantly beyond the depth rating of the majority of standard diving systems.

The system is fully compliant to International Marine Contractors Association (IMCA) and Lloyds Register of Shipping (LR) requirements. The system is made up of 2 x 12-man systems including diving bell, hyperbaric lifeboat, gas management and life support equipment built into a single lift module. Each system can be deployed individually on vessels of opportunity or installed together as 2 x 12-man systems on-board a newly designed dive support vessel (DSV).



# NEWS UPDATE

The last year has been like no other, yet despite the many challenges presented there was still a phenomenal amount of things happened at JFD! We'd like to take you back with a summary of these items.

**CLICK IMAGE TO VIEW FULL ARTICLE**



**JANUARY 2020**  
JFD acquired Ansti Test Systems



**JANUARY 2020**  
JFD continued investment programme in India



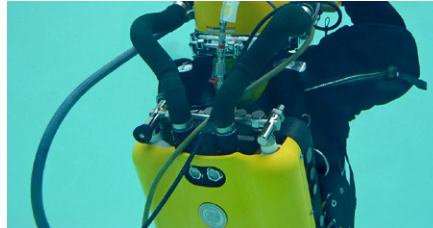
**FEBRUARY 2020**  
Australia secured major contract extension to supply submarine rescue system



**MARCH 2020**  
JFD acquired Fathom Systems



**APRIL 2020**  
JFD launched new ventilator system, InVicto™, in response to the UK ventilator challenge



**JULY 2020**  
COBRA buoyancy jacket received CE certification



**AUGUST 2020**  
JFD produced and delivers 100th COBRA system



**AUGUST 2020**  
JFD wins HSE Innovation Award at the OAA for COBRA



**SEPTEMBER 2020**  
JFD delivered a full-scale mock-up of its Search & Rescue Vehicle for the Republic of Korea Navy



**SEPTEMBER 2020**  
JFD awarded extension of NSRS contract



**OCTOBER 2020**  
JFD awarded Royal Navy contract for life-support diving equipment



**OCTOBER 2020**  
JFD Australia got ready to mobilise for BC 2020



**FEBRUARY 2021**  
JFD named as joint winner in the Healthcare & Medical - COVID response category at the Collaborate to Innovate awards for InVicto™ ventilator



# JFD awarded extension of prestigious NATO Submarine Rescue System contract



JFD has been awarded an extension to its contract for the provision of the NATO Submarine Rescue System (NSRS) by the UK Ministry of Defence (MoD).

The initial five-year contract has been extended to 2023, demonstrating the faith in JFD's ability to operate and maintain the system, and encompasses all aspects of NSRS operations and through-life-support.

JFD has a strong legacy as an operator of submarine rescue systems and has been an integral part of the UK's submarine rescue provision since 1983. The company has been at the heart of the NSRS since it came into service in 2008 as both an operator and equipment manufacturer. JFD was then awarded an initial five-year contract by the UK Ministry of Defence for the provision of the NSRS in July 2015. The latest contract extension will continue its In-Service Contract for the NSRS which includes extensive training across all JFD submarine rescue systems world-wide for the UK MoD and the partner nations of France and Norway.

The contract continues to include expert engineering and technical support to ensure high-level operation and maintenance of the system to provide 24/7 availability of the service, 365 days a year. The agreement also involves shared training opportunities to ensure suitably qualified and experienced personnel are on hand to perform rescue operations at short notice, to protect the entire global submarine community.

**Defence Minister, Jeremy Quin, said:** "The safety of our personnel is of the utmost importance and I am pleased we have extended our submarine rescue capability contract with JFD, which will continue to support jobs in Scotland.

"This contract extension also represents our dedication to the NATO Submarine Rescue System and underpins our continued commitment to ensuring NATO submarine operations remain as safe as possible."

**Danny Gray, Managing Director, JFD, said:** "We are extremely proud to have secured this contract extension after five years' of hard work to build strong relationships with the UK MoD and the participant nations of France and Norway. The extension reflects the MoD's confidence in our ability to keep submariners safe, as well as the diligence with which we delivered the initial agreement.

"Our heritage is built on world-class safety and we are pleased our team continues to impress with their extensive knowledge, as well as their unwavering commitment to the highest possible standards of equipment maintenance, operational delivery and training. We look forward to continuing our work with the NSRS Authority and ensuring we are constantly upgrading processes, equipment and training to exceed market standards."

**Richard Devlin, Head of Defence Sales, JFD, said:** "The decision to extend the contract with JFD is testament to the depth of our expertise, the quality of our training and the support infrastructure we have built, based on our strong foundations in submarine rescue. While establishing ourselves as the MoD's trusted contractor to deliver safe and efficient rescue operations is key, we also continue to work with all partners involved in the NSRS project to provide capability enhancements and manage equipment obsolescence, both of which are vital to ensuring the NSRS service offers the highest safety standards in the world."

JFD continues to ensure the highest levels of training and the ability to mobilise in extreme conditions, demonstrating the up most commitment to the NATO Submarine Rescue System as well as the recognition of responsibility for assuring the operations team is fully trained in all aspects of a safe rescue. JFD maintains a state of readiness to respond at a moment's notice.

# Testing times

Throughout 2020, our National Hyperbaric Centre (NHC) remained open to service the commercial and defence industries with our wide and varied testing requirements. Throughout the year, we were able to work around the issues COVID brings and provided testing services to our clients in our 4 pressure tanks, viewport test jig and our 900,000 litre test tank all based at the NHC.

It is vital for industry to be able to continue to deliver existing subsea technology and develop new technology. Our industry has continued to work through the pandemic and the availability of high quality testing and demonstration facilities is an important element of that.

JFD has been able to adapt our facility and processes since the COVID outbreak to ensure our renowned testing service can, and has, continued to operate in a safe and efficient manner.

We set up a remote test witness process which allows clients, 3rd parties and class society personnel to view and witness the tests at our facility without physically being on site. Due to these changes we have been able to support pressure testing of mini-submarines, underwater speakers, cameras, ball-valves, ROVs, viewports and more.

Further to the pressure testing, our 100 bar pressure chamber was used by a defence customer to perform altitude testing, showing the variety of tests we have been able to conduct safely during these COVID times.



In our external dive tank we have also been able to support live testing and client demonstration of an underwater cutting and lifting tool. In order to ensure this could go ahead a number of COVID measurements were put in place. A live video feed was set up to a dedicated client room with staggered arrival times and personnel movement controlled and monitored throughout.

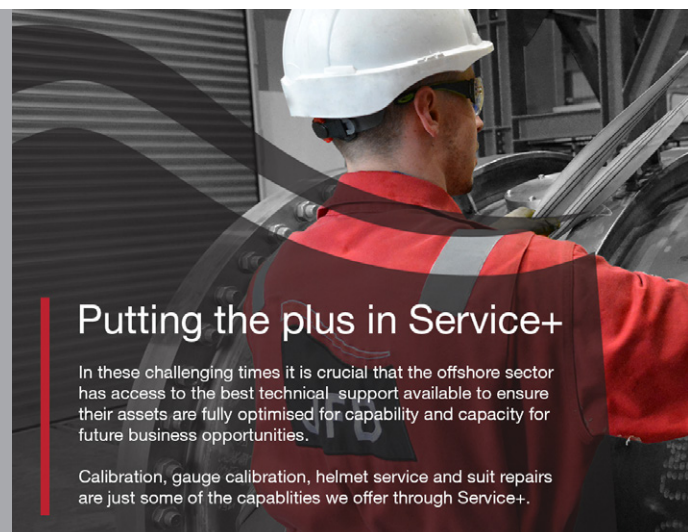
We will continue to provide these critical services to the industry, and will continue to adapt as necessary with the times. We are proud to be able to support both the commercial and defence diving industries and to ensure development and production can continue despite the challenges placed by COVID.

## Support when you need it

In these difficult times it is crucial that the offshore sector has access to the best technical support available to ensure their assets are fully optimised for capability and capacity for future business opportunities.

JFD is pleased to be able to offer this technical support to our customers through our Service+ offering! We can provide maintenance, servicing and support solutions to enhance your assets.

Through our global bases, we have the capacity and capability to provide you with a responsive and cost effective route to maintain and enhance your system capability.



### Putting the plus in Service+

In these challenging times it is crucial that the offshore sector has access to the best technical support available to ensure their assets are fully optimised for capability and capacity for future business opportunities.

Calibration, gauge calibration, helmet service and suit repairs are just some of the capabilities we offer through Service+.

With over 25 years providing servicing to our clients we have unique and specialist knowledge within the subsea and hyperbaric industries.

**Read about our comprehensive offering:**  
<https://bit.ly/37R8nGW>



# Let's get digital... digital!

In May 2020 at the height of the first lockdown in the UK, JFD launched its inaugural remotely delivered training course, the Remote Client Representative Course. From March 2020 the NHC had been unable to deliver either product or competence training, yet many in the diving industry were sitting at home keen to develop their competence. So we quickly adapted our existing courses to be delivered remotely.

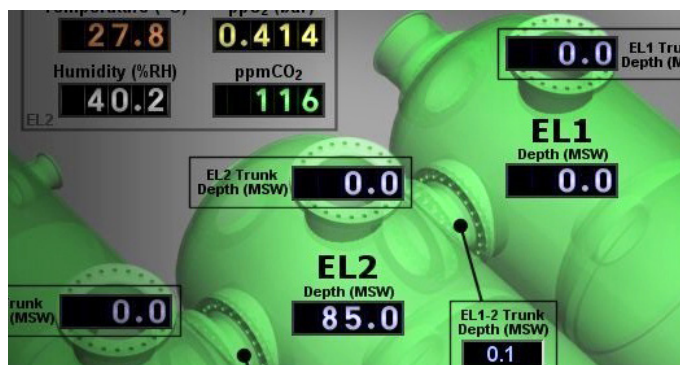
Since launching the remotely-delivered Client Representative Course JFD has continued to develop the suite of courses it offers remotely. Next to be launched was an online Dynamic Positioning Course, quickly followed by a Remote Audit Awareness Course. Then, as IMCA recognised that the training delivery for their courses had to adapt to the new situation, we launched Remote IMCA Air Supervisor and IMCA Bell Supervisor courses.

The courses are delivered in a number of different ways depending on the nature of the course. Training can be purely online where students log into our new Online Training Portal and complete the course at their own speed. Courses can also be highly interactive, with online learning backed up with one-to-one sessions with the instructor, or training delivered live from our new digital studio at NHC.

Feedback from candidates has been excellent. This new way of delivering training has maintained the quality of training delivery while saving customers travel and accommodation costs, so the perceived value is very high. It has also given candidates around the globe easier access to our training, thereby 'raising the bar' globally. Our instructors have had to learn a few new tricks along the way, and they've embraced this enthusiastically.

Now that we are back in the classroom in a socially distanced way we can start delivering some of our product and medical courses again, albeit in a more restricted fashion than before. However, remote training delivery will be with us permanently now as it has proved to deliver high quality training while avoiding the need to travel. JFD will continue to develop its suite of new courses, with a new Remote Subsea Isolations Course in January and more courses in development.

We'll continue to match our delivery to what the market requires, and in many cases we can now reach that market more effectively for both JFD and our customers.



## Are you compliant?

### Does your saturation dive system meet with the new monitoring requirements of IOGP411?

The January 2021 release of IOGP Report No.411 (Recommended Practices for Diving Operations) calls for mission critical equipment capable of electronically recording and storing pressure variations in chambers, SPHL, SDC, transfer locks and medical/equipment locks. Life support parameters to include temperature, humidity, oxygen and carbon dioxide levels should also be electronically stored.

JFD offers the best in class, field proven, tailored hardware and software solutions from the award-winning Fathom portfolio to meet with all Diver Monitoring System (DMS) requirements. Fathom Systems has provided a range of integrated DMS solutions since 2005 with sophisticated, high quality, robust systems in operation on more than 20 Dive Support Vessels globally, all fully compliant with various commercial diving industry recognised standards including DNVGL-OS-E402 and NORSOK U-100 as well as industry body guidelines set out by IMCA and IOGP.

Find out more: <http://bit.ly/3rBHnne>

# SGUnited Traineeship Programme

## JFD Singapore join as host company

JFD came on board as the host company and took part on the SGUnited Traineeships Programme of Singapore Ministry of Manpower (MOM) and Workforce Singapore (WSG). The program is part of the COVID-19 pandemic measures which aims to support those who have recently graduated or will soon be graduating from the Institute of Technical Education (ITE), Polytechnics, Universities and other private educational institutions in 2019 or 2020, to take up traineeship opportunities across various sectors. This includes those who graduated from the above institutions and recently completed National Service in 2019/2020.

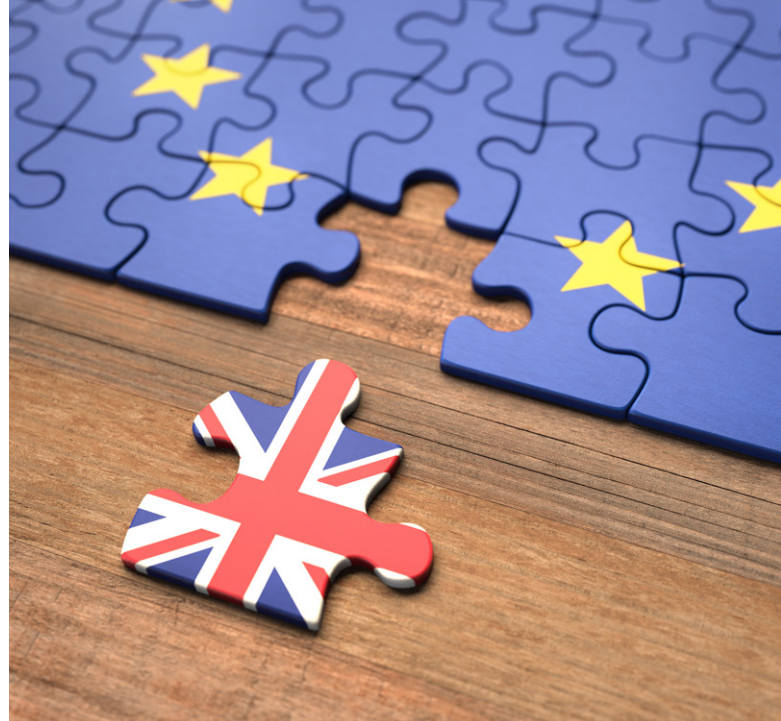
### Four trainees under this programme recently joined JFD Singapore.

These traineeships will help graduates develop their skills professionally even during the current economic climate. These traineeships will equip young locals with valuable industry experience and allow them to gain a firmer foothold in the job market during the economic recovery.

Companies who came on-board as host companies can take on trainees to support their business needs and tap on government support during the 12 months traineeship period, in preparation for the economic recovery.



From left to right: Justine Moey, Keith Tan, Aisyah Kennerley, Mizuki Loh



## Brexit

### What does it mean for us?

As the Brexit transition was closely monitored by all, signing a free trade agreement with the European Union was an important moment following the UK's exit from the EU. It is the first free trade agreement the EU has ever reached based on zero tariffs and zero quotas. JFD will be able to continue to trade smoothly, selling to our customers in the EU.

The Agreement ensures there will be zero tariffs or quotas on trade between the UK and the EU, where goods meet the relevant rules of origin, and includes provisions to facilitate trade and address non-tariff barriers for UK exports to the EU and vice versa.

JFD continues to follow all UK Government guidance to ensure that all new regulations are being met and that all compliance checks are being adhered to. We have implemented additional procedures in the following areas to ensure we maintain good working practice across the business:

- **Reporting**
- **Documentation**
- **Data Management**
- **Business Systems**

The trade deal delivers on the Government's promise to take the UK out of the EU's customs territory and to regain control of our borders.



# Submarine hull hydro test

Client	
Completed	2020
Service	Hydro test



## THE REQUIREMENT

To provide an external Hydro test on a client submarine hull in our 100 bar work chamber, based at our National Hyperbaric Centre (NHC) facility in Aberdeen.

Due to the length of the submarine hull the work chamber door had to be removed by our gantry crane then refitted once the submarine was inside the work chamber.

## HOW WAS THE TEST UNDERTAKEN?

To support this test JFD had to remove the door of the work chamber in advance of the client's equipment arriving on-site.

The full 300cm (internal diameter) x 800cm (internal length) and the 63m<sup>3</sup> volume of the chamber was used in the test with only centimetres to spare from the end of the submarine and the internal wall.

JFD used a 100 tonne mobile crane to offload the submarine from the client trailer, load it on to our trolley and into the chamber where it was strapped down to overcome buoyancy.

The chamber was filled with water and the pressure test conducted on the submarine to give our client confidence that their equipment could withstand the pressures it would be subjected to in regular operations, all within a safe and controlled environment.

Following the successful pressure test on the submarine it was removed from the chamber, loaded back on the trailer and transported back to the client. JFD were then able to re-install the work chamber door.

## TESTING OUTCOME

The trial enabled the customer to test their equipment in a controlled environment, at a fraction of the cost it would be to do on location.

This was the fourth such successful test, using this procedure, with the customer in the last 5 years.



# Go big, or go home!

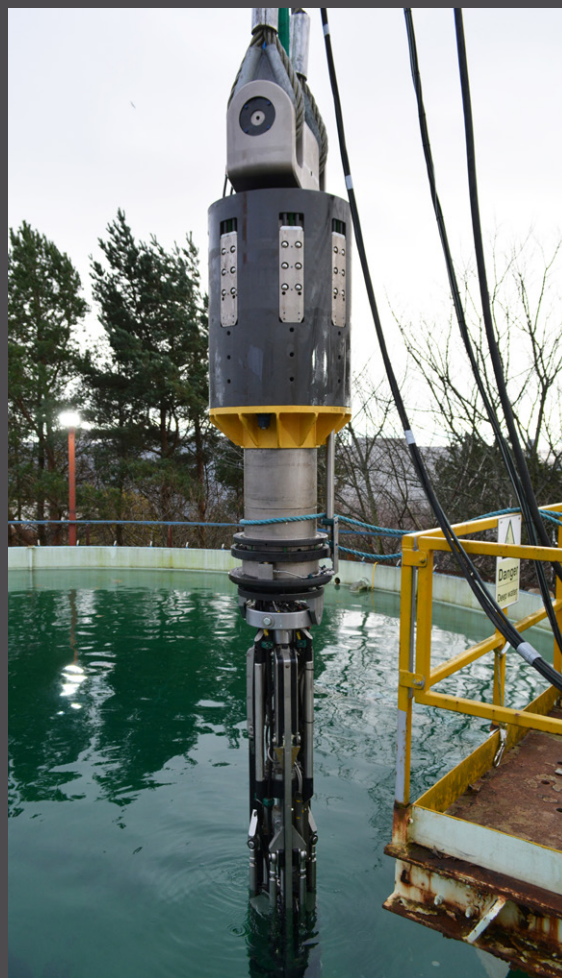
**How do you test large subsea equipment and structures before they go in to operation?**

With a depth of 8m and a diameter of 12m, JFD's 900,000 litre steel tank based at the National Hyperbaric Centre (NHC) is large enough to accommodate the deployment and operation of many large subsea items such as work class ROVs, air diving systems and ancillary equipment.

In November we were excited to work with our sister company James Fisher Offshore to provide test and demonstration services of their Internal Cut and Lift Technology (ICLT), a collaboration between them and First Subsea.

With such a large piece of equipment organisation and planning was key and our site at the NHC provided the perfect environment and platform for them to test the equipment. So much so that they are returning this week for a second test and demonstration.

**Read the full case study here: <https://bit.ly/3anU0N0>**

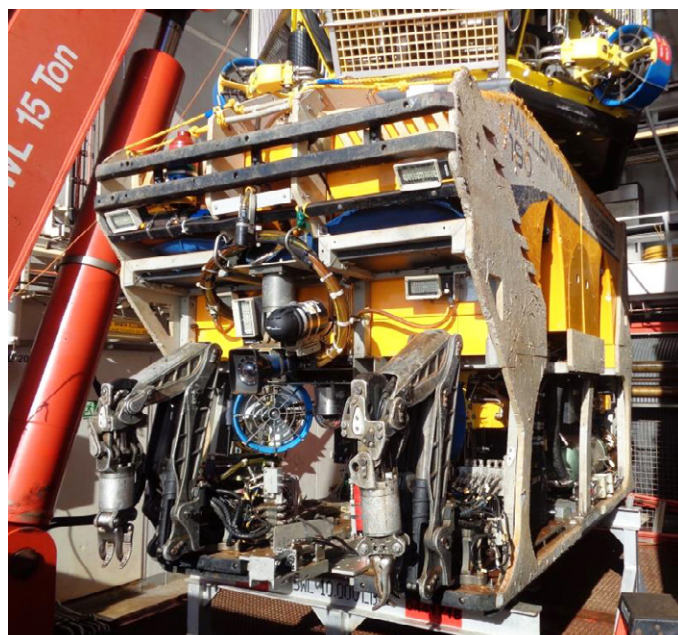


## Remote dive audit for Heerema Marine contract

Back in the summer time we conducted a remote dive audit for Heerema Marine Contractors who required 2 x ROV audits to be conducted on-board their vessel by a third party provider, as part of the assurance process from their client.

We were able to conduct the audit remotely using a modified IMCA DESIGN R006 template. Heerema Marine technicians securely transferred across pictures of the ROVs and ancillary equipment including all certification on the systems to JFD for initial review in advance of audit beginning.

**Read more about how we were able to support Heerema with this audit: <https://bit.ly/3mUHB73>**







Australia | China | Germany | Italy | Singapore | South Africa  
Sweden | The Netherlands | United Kingdom | USA

