AUSTRALIAN ACQUISITION
Oceaneering acquires GTSG

FLANGE FACE INSPECTION
Technique approved

HSE LEADERSHIP AWARD
Success at CoP Humber Refinery

THE INSPECTION STANDARD
The newsletter of Oceaneering Inspection
February 2011

www.oceaneering.com
Notes from the editor

Firstly an apology for delay in producing the latest edition of the Inspection Standard, which is a result of the continuing demand for Oceaneering’s services and the high levels of activity in all departments. Long may it continue!

Readers will note the February 2011 edition is the first in a new design format that I hope you will all enjoy. As ever the content is from our various operations around the world without whose support we could not produce the newsletter. In recognition of these contributions Oceaneering will be giving a prize of a meal for two, up to a value of £75, at any restaurant of choice to the Oceaneering employee who submits the best article. Our first winner is Jason Jenkins, Specialist Inspection Services technician based in our Swansea, South Wales office for his article UK Pipeline complete. Congratulations Jason.

For the opportunity to win the meal for two in our next edition of the Inspection Standard please send all articles to myself, Martin Hockley, mhockley@oceaneering.com Good luck.

Oceaneering has announced the acquisition of Global Technical Services Group (GTSG) based in Perth, Australia. GTSG manages its operations from its main office in Perth, Western Australia, together with an additional support hub in Brisbane, Queensland.

Established in 2004 by Dave and Pete Ryan, GTSG quickly established a reputation for providing high quality services to a growing market, with a committed workforce of over 50 personnel, and focused on the Pipeline Inspection and Specialist Inspection Services sector. The current management team will remain to ensure continuity to our existing clients and help in the development of the potential of the market.

Eric Johnston, Vice President of Oceaneering Inspection, commenting on the acquisition said, ‘We are very pleased to welcome GTSG to Oceaneering. This acquisition creates an ideal platform and footprint from which to develop Oceaneering Inspection’s operations in Australia, a market which is growing rapidly and where there are substantial development plans in the Oil and Gas, Coal Seam Gas and Resources Sectors, particularly in Western Australia and Queensland’.

Oceaneering Inspection expands into Australia

It’s not all sun and surf in Australia as a GTSG technician tries to protect himself from local inhabitants with some fancy head gear on a recent pipeline project.
An holistic view

With a successful 2010 behind us, the start of 2011 has carried on where the previous year left off with a number of exciting developments.

At the time of writing a number of new contract awards are imminent, and to have been notified of these this early in the New Year is extremely encouraging for Oceaneering Inspection. Hopefully, more about these in the next edition of the Inspection Standard.

One strand of our growth strategy is carefully targeted acquisitions and towards the end of 2010 Oceaneering Inspection positioned itself in the expanding market of Western Australia with the acquisition of Perth based Global Technical Services Group (GTSG). The Australian market is buoyant, with many growth opportunities for our comprehensive range of conventional and advanced NDT services as well as our established integrity management capability.

This market is of keen interest to all divisions of Oceaneering International and our new presence in Australia is supported by the ROV, Deepwater Technical Solutions and other divisions where our organisation’s unique range of capabilities – the closely aligned ‘one Oceaneering’ concept - will offer greater ‘one stop shop’ opportunities.

But while winning new work and adding new markets through acquisition is exciting, and a testament to the skills and efforts of our personnel, we should not forget the importance of consolidating key business that we have previously won. So I’d like to take the opportunity to recognize a number of existing long-term contracts that have been successfully retained. This includes the EDF Energy contract for the provision of NDT services to all eight United Kingdom nuclear stations. This prestigious contract is our second largest in the UK, and we are very proud of the quality of work performed at these sites that has contributed significantly to the contract extension decision. We were also delighted to retain what is probably our longest running contract in the UK, covering both the Fife Ethylene Plant in central Scotland and the Fawley Refinery on the UK south coast where we have provided services for ExxonMobil for more than 25 years.

The strategy of ‘one Oceaneering’, which involves combining the complementary services provided within Oceaneering, is already proving successful with a number of projects successfully completed jointly, the latest one being on the Genesis deepwater Spar in the Mexican Gulf. The project combined expertise from Oceaneering’s Inspection, Vessel Supply and Diving groups and is covered in more detail in this publication.

Finally, the safety of our personnel and those of our customers and fellow contractors is our number one priority. At all levels of our organization this message is paramount so it is very rewarding to see in this publication evidence of this ethic being recognized by our customers by way of awards for our efforts. Very well done to all our personnel in question who strive to maintain these standards.

Eric Johnston,
Vice President Oceaneering Inspection

West Africa pipeline

Acergy AFMED and Spiecapag Joint Venture (JV) awarded Oceaneering’s Pipeline Division their first Automated Ultrasonic Testing project in West Africa. The Angola LNG nearshore/onshore segment of the pipeline network required for the transportation of gas from offshore blocks 0, 14, 15, 17, and 18 to the LNG plant in Soyo. The project comprising of three gas lines from beach tie-in points to the LNG plant via waterways and mangrove sections, under strict environmental constraints. It also includes the construction of a beach valve station and an LNG Plant tie-in station with associated facilities.

The onshore sections constructed by the JV were successfully completed in May 2010 after a six month campaign, with above ground installations still ongoing to date. Oceaneering were successful in securing the work in conjunction with partners O’Neill Radiography Services Ltd.

The offshore sections were laid by the Acergy Polaris and included the beach pull of a 2000ft bundle that formed part of the tie-in phase and the continuation to deepwater of the three high pressure pipelines.

Personnel and equipment deployed performed well in the harsh environments ensuring Oceaneering’s first foray into West Africa with AUT was a most successful one and cementing our reputation as a global force in pipeline NDT.
Spring 2010: Oceaneering obtains the inspection contract for the installation of a 44 Kilometer, 36” diameter pipeline laid in Gloucestershire, England. This project was to see Oceaneering’s first major deployment of manual Phased Array on an overland UK pipeline.

Over the past 5 years the Specialist Inspection Services Department based at Swansea has been using manual Phased Array Ultrasonic Testing (or PAUT) to supply our petrochemical clients with an accurate, reliable and repeatable method of examination with a wide range of applications. From butt-welds in pipe to in-service testing of flange faces. This experience and the technical expertise found within the Specialist Inspection Services department allowed for a smooth transition into the overland pipeline industry.

The initial phases of the project called for detailed techniques to be submitted to the client for approval. Techniques were tailored to the client’s specific requirements using advanced modeling software. The use of multiple Phased Array probes and the requirement for all collected data to be accurately encoded prompted development of a dedicated large diameter pipe scanner. Constructed at the Oceaneering facility in Batam, Indonesia the unit is capable of carrying up to 6 probes while allowing for water irrigation and ensuring the required stand-offs (distance of probe to weld centerline) were maintained and eliminating probe skew (sideways movement). Once the techniques were accepted a manual Phased Array inspection team was mobilised for the examination of welding procedures and welder qualification tests prior to the construction phase.

Due to the sheer amount of welds completed per day, inspection of the majority of the joints was performed by a PipeWizard™ team deployed from Oceaneering Aberdeen. The PipeWizard™ is a vehicle based system that combines Phased Array, Time of Flight Diffraction and Pulse Echo Ultrasonic testing to provide a rapid, proven method of examining butt welds in a high volume environment. However, the dynamic nature of pipeline production welding has historically required a radiographic team to inspect welds not suitable for Automatic Ultrasonic Testing (AUT - PipeWizard™). This may be due to physical access, weld geometry or time constraints. Manual Phased Array Testing was used in lieu of the radiography having the advantage of being highly portable while flexible enough to adapt easily to different weld configurations. Combined with the ability to provide practically instant results and removal of many of the safety issues associated with radiography, PAUT proved the ideal tool to satisfy the client’s needs. At the height of production Oceaneering Specialist Inspection Services deployed a second PAUT team ensuring that all inspection requirements were met in a timely manner anywhere along the 44km length of the pipeline.

Throughout the course of the project PAUT was employed to inspect everything from 36” mainline butt welds, to small diameter AGI (Above Ground Installation) process pipe-work. This included the examination of small bore (2” diameter) welded joints that required development of dedicated equipment. A low profile 32 element small bore inspection probe was developed by a major inspection hardware manufacturer to Oceaneering specifications. Additionally a scanner with miniature encoder was designed around the probe that allowed full circumferential data collection even where access was limited.

The project was completed in October 2010 with Oceaneering involved from the initial stages to the examination of the final weld completing the 44km pipeline. Due to the digital nature of the systems utilised during the project, 7 months worth of inspection data was handed to the client on a single 2.5” portable hard disk drive. An on-going system of quality assurance involving both in-house and client audits in conjunction with constant review of inspection data by 3rd party inspectors ensured the highest level of client confidence and satisfaction.
Oceaneering are pleased to announce that their contract for the provision of Non-Destructive Testing and Inspection Services has been extended by ExxonMobil for a further 7 years. The contract covers two United Kingdom sites, the Fife Ethylene Plant in Mossmorran, Scotland and the Fawley Refinery, in Southampton England.

The excellent safety performance of Oceaneering was a major contributing factor in the award of the new contract a fact recognized by a number or awards received from ExxonMobil in recent years, the most reason being a Silver Tiger award.

The Silver Tiger award was presented by Stuart Kelley, Fawley Refinery Site Manager (left) to Derek Bromby Oceaneering Operations Manager for outstanding performance in safety and overall work expedition in 2010 on the Fawley Refinery. Oceaneering were one of four companies to receive the award out of over 35 contracting partners working on the site. Well done to all at the Fawley and keep up the good work.

We are proud to announce that Oceaneering International Services Ltd have been granted a two year contract extension to its existing contract with EDF Energy for the provision of Non-Destructive Testing (NDT).

Under the terms of the contract Oceaneering provide EDF Energy, the UK’s largest generator of electricity, with NDT services at its eight nuclear power stations. The stations, with a combined capacity of almost 10,000 megawatts, operate two types of nuclear reactors. Seven have advanced gas-cooled reactors (AGR) and one pressurised water reactor (PWR).

This is a great achievement by all Oceaneering employees associated with the contract as it is the first time that the incumbent contract holder has had the contract extended. Praise for this achievement must also go to employees of EDF who continue to provided support and guidance to Oceaneering.

Moving forward Oceaneering will continue to do everything possible to maintain and improve its excellent safety record on the contract where to date we have exceeded 655,000 consecutive hours without an injury or Lost Time Incident (LTI). Continuous Improvement (CI) strategies are agreed to insure Oceaneering continues to improve the level of service provided and the increased utilisation of advanced technology.

Immingham open day

On January 11th 2011 Oceaneering officially opened new radiographic facilities at its Immingham office in Lincolnshire England. The new facilities include 2 automated radiographic bays with 2 tonne lifting capability. The largest bay is 7m x 4m.

Oceaneering took the opportunity to invite many existing and potential clients from the surrounding area to view the facilities and also catch up on the latest technologies available from the Specialist Inspection Services (SIS) department. On show were the latest developments in Phased Array that included small bore pipework inspection and flange face inspection. Oceaneering’s new corrosion mapping system capable of inspecting up to 50 meters per day of 48” diameter pipe was of particular interested to a number of visitors.

For further information on our Immingham office contact Colin Mortimer cmortimer@oceaneering.com
Flange face inspection gets the “seal” of approval from BP

As covered in the March 2010 edition of the Oceaneering “Inspection Standard”, Oceaneering’s Specialist Inspection Services Department, based in Swansea, has developed a Phased Array Ultrasonic technique (PAUT) to assess the condition of flanged joints whilst in-service. This is a considerable issue for the ongoing integrity of the pressure envelope of hydrocarbon carrying pipelines in processing facilities both in the upstream and downstream oil and gas industry.

A flanged joint consists of two mating flanges with a sealing mechanism (gasket or o-ring) between them. Because they are a break in the continuity of a pipeline a potential route for loss of containment is present. The crevice created on the inside diameter of a flanged joint presents an inherent location for localized corrosion to occur. Carbon steel flanges are particularly susceptible to such attack. Over time, the corrosion of the flange face may extend into the gasket mating area potentially compromising the seal integrity of the flanged joint.

Loss of containment in hydrocarbon, high pressure gas or high pressure water systems is a significant safety issue and effective inspection strategies are essential to ensure the integrity of the joints at all time.

The current philosophy for inspection of flanged joints is the periodic breaking of the joint and visual inspection of the sealing faces of the joints. The disassembling of flange joints is both time consuming and involves the shut down and de-inventorying of the system. This is costly and can introduce other corrosion risks by allowing air ingress into systems that do not normally see oxygen. Initial NDT methodologies were based predominantly on conventional A-scan ultrasonics but, due to the geometric complexity of the joint, it was difficult to optimizing scanning angles to inspect the primary areas of interest.

The introduction of phased array technology into the industrial environment has provided the means for overcoming geometry restrictions principally due to its ability to simultaneously collect A-scan data at a number of given angles. This unique feature produces a volumetric beam allowing operators to distinguish between geometric reflectors and defect signals and therefore increasing the likelihood of detecting flaws.
ESR Technology designed and hosted a blind trial for BP to validate the Oceaneering PA technique to justify its wider application to flanges on all BP assets. Simulated corrosion defects were introduced into twelve new ring type joint (RTJ) flanges (2 and 3 inch nominal bore (NB)) and twenty eight new raised face (RF) flanges (¾ to 6 inch). These specimens were supplemented by 10 ex-service RF flanges.

Pairs of new flanges were bolted together and the ex-service flanges were fitted with blanking plates to ensure blind trial conditions. All gaskets and bolts were in place to make the samples as representative of in-service conditions as possible.

The trial concluded the overall Probability of Detection (PoD) of flaws in Raised Face and Ring Type Joint flanges (2” to 6”) as 86% and 62% respectively.

**“PROBABILITY OF DETECTION 86%”**

The validation tests will form the basis of BP’s recommended practice for flange face inspection, with Oceaneering currently being the only company approved to carry out this service. The results obtained in these tests have provided confidence in the technique such that raised face flanges can be inspected towards a fitness for service criteria with the RTJ technique providing a screening process inspection.

“OCEANEERING CURRENTLY BEING THE ONLY COMPANY APPROVED TO CARRY OUT THIS SERVICE”

Subsequent on-site trials have proven to be equally important towards technique validation. Inspection campaigns have been completed on a Murco Petroleum Refinery and the BP Clair platform with validated success. All flanges that were inspected were subsequently split, with all results being confirmed.

This new service provides Oceaneering a significant opportunity and demonstrates our commitment to our clients to provide innovative solutions to perennial integrity problems. Combining new techniques with established advanced NDT techniques perfectly supports the Risk Based approach to plant integrity where, by encouraging Non-Intrusive Inspection in lieu of process shutdown and Internal Visual Inspection, improved safety and cost savings are both delivered.
Genesis – Re-writing the ‘book’

Have you ever been on a job where everything went perfectly? The equipment arrived on time and worked well. Daily interfaces were with an understanding, pleasant and knowledgeable client. There were no personality clashes in a large multi-discipline crew. No accidents either, and to top it all, the job saved the operator a very considerable financial sum, vindicating the logic behind the project. Sounds too good to be true, but then maybe if it’s the ‘beginning’ of things to come, this project on the Chevron ‘Genesis’ deepwater Spar was aptly named.

Tethered in 2590 feet (North Sea typically 250 feet) of warm seas of the Mexican Gulf, Genesis lies 150 miles south of New Orleans, a short helicopter flight in a Bell 212. The project involved several closely integrated services to complete Advanced Ultrasonic Examination and Computed Radiography of fatigue sensitive welds. This approach involved expertise from diving, vessel management, non-destructive testing groups, and close coordination with platform and vessel operations. In addition to several weeks of training and special visa applications granted by the US Offshore Continental Shelf (OCS) were required.

The operator ran several fatigue analysis models as part of an asset integrity evaluation following hurricane activity in the region, which initially highlighted concern on two pairs of carbon steel welds at water depths of 77 and 144 feet. The gas export line was a 10.75”x 0.5” OD Top Tension Riser (TTR) and the oil export line a 14.25”x 0.5” OD TTR. These welds may have been subject to accelerated fatigue and as such, the potential development of tight fatigue cracks originating at the weld root in the weld or weld/HAZ line, running circumferentially.

Chevron required robust quality and integrity assurance evidence for justifying continued operation to the MMS in lieu of shutdown and possible repair or replacement. All welds, had the welds caps removed, and were coated with Thermal Spray Aluminium.

The principal NDT technique for detecting this flaw type was “Time-of-Flight-Diffraction” (TOFD), with additional Pulse Echo compression wave and angled shear wave tests, and these were delivered by a

In addition, Computed Radiography was carried out using the GE CRxFlex in line with a “belt and braces” approach to ensure the welds were free from any gross volumetric flaws. The underwater photo below shows the Sentinel QSA 865 subsea exposure system attached to the weld placed opposite a specially marinised phosphor imaging plate. Both pipes had product inside.

The underwater photograph shows the ToFD probe holder and scanner either side of the weld centerline, carefully measured and scribed by the diver.

Both UT and RT systems were delivered by a team of 19 personnel including divers and dive support, who were specially trained in an underwater training facility on ‘mock-up’ pipe joints that included representative ‘on-site’ restrictions from air/utility lines and flange nuts and bolts. All divers were given a comprehensive radiation safety and radiography technique instruction, as well as certificates of training in assembly and set-up of the UT system at depth. Advanced NDT support was provided by experts on the surface using a combination of CCTV and standard diver communication from the dive shack.
Graham Smith, Project Manager for Oceaneering Inspection at ConocoPhillips (CoP) Humber Refinery has been awarded the Oceaneering HSE Leadership Award. This global accolade is a huge recognition for him and the work he has done.

The award is made by Oceaneering’s Corporate HSE Steering Committee to recognise Supervisors or Managers who have displayed outstanding leadership and made significant contributions to our HSE process and safety culture. Matt Siddall, CoP’s Humber’s HSE Manager said “It is great to have people like Graham on our site and partners like Oceaneering who obviously hold HSE as high in their values as we do in ours.”

“IT’S GREAT TO HAVE PEOPLE LIKE GRAHAM ON OUR SITE…”

Graham has worked at Humber for 25 years after joining the site just one year after he started working for Oceaneering. When asked what one piece of safety advice he would like to share he replied, “If it isn’t safe don’t do it. But it isn’t to be taken literally. It is to make you think about the problem and to find the safe answer.”

Mike Wirkowski CoP General Manager added “This is a fantastic achievement and recognition of Graham’s work and dedication to safety. Congratulations go to him and his team”.

The award was a total surprise to Graham as he had been nominated by Oceaneering’s Principal UK Operations Manager and their European Manager for the accolade without his knowledge. The award is further recognition of the outstanding performance of Graham and his team who have been providing Non-Destructive Testing and Inspection Services at the Humber Refinery for more than 20-years with an excellent safety record. Oceaneering’s performance on the Refinery has been awarded on many occasions, not only by Oceaneering but also by ConocoPhillips, with a number of individual and collective awards. Their ultimate achievements have been in 2005 and again in 2009 when they were awarded the Humber Refinery ‘Contractor of the Year’.

CoP Seal Sands

Les McMillan ConocoPhillips HSEQ Manager (centre) congratulated Ian Forsyth Oceaneering UK Principal Operations Manager (right) and Dave Close Oceaneering Site Manager (left) on the Inspection groups achievement

Oceaneering workforce working at the ConocoPhillips (CoP) Seal Sands, a crude oil reception, storage and trans-shipment installation located in the North East of England, have passed the milestone of 110,000 hours worked without so much as a first aid accident, an achievement commended by ConocoPhillips.

Oceaneering have had commemorative mugs and tee shirts produced as gifts to the personnel in recognition of this marvelous achievement. Oceaneering have managed the Inspection Services contract at Teesside from April 2007 since when they have safely overseen the change of contract and the doubling of the inspection personnel on site. The inherent safety culture within Oceaneering has reinforced the high safety expectations of ConocoPhillips.
European bronze for Oceaneering

Paul Booth, Director of SABIC Europe has presented Oceaneering a Bronze Safety, Health and Environmental award for outstanding performance on its Wilton International site in the North East of England.

This was the first year Oceaneering has entered into the European award scheme, and this recognition was an excellent achievement with competition from many companies providing services to SABIC in the United Kingdom, Germany and Holland.

New plants come on line

The Oceaneering branch at the Wilton International site recently witnessed the commissioning and start up of two new plants.

The £250 million SABIC LDPE plant and the £300 million Ensus Bio-Ethanol are both successfully producing following construction. Oceaneering provided the NDT for all nine of the mechanical / fabrication contractors. These were Shaw Group, Cordell, Carillion, Interserve, Fabricom, Syntex, Hertel, Petroremont and Chemont. We are pleased to announce that all work was successfully completed without any safety incidents.

Pembroke power station

Oceaneering have signed a contract with Shaw Group to carry out NDT on the five boilers on RWE npower owned 2000 MW gas fired power station at Pembroke in South Wales.

Work on the £1 billion investment started in the third quarter of 2010 and is currently the largest construction job running in the UK with up to 2,000 construction workers on the site at peak expected.

Corrosion mapping

Oceaneering were recently invited to carry out an automated ultrasonic survey on ballast water lines at the Sullom Voe Terminal in the Shetland Isles. The workscope was extensive; the underside of some 2000 meters of pipeline was required to be inspected in a seven week period. For this application, the LSI automated scanner with an axial bridge was used. The advantage of this system is the speed of the scanning time - the scanner moves in a forwards direction along the length of the pipe held on by strong magnetic wheels, with the probe assembly sweeping the underside of the pipe in a circumferential motion. In suitable conditions, 50 meters of the underside of a 48” diameter pipe can be inspected in a 12 hour shift. In all, 36”, 42” and 48” diameter pipes were inspected during the survey.

Collected ultrasonic data was analyzed by members of the Oceaneering inspection team, and valuable information obtained correlated to assess the condition of the lines and their predicted lifespan.
In August 2010 Brian Allan embarked on his well earned retirement. Brian joined Oceaneering Inspection (then QIS) in 1981 and has worked on numerous projects in varying supervisory and technical positions. To help him enjoy his leisure time Brian was presented with an electric golf trolley and a hip flask, and to make sure he didn’t lose track of time on the golf course a gold watch.

Anne Husband, Senior HR Advisor has achieved the significant milestone of 30 years loyal service with Oceaneering. Anne who works in the Stockton office is seen receiving her award from John Watkinson, Vice President Inspection Europe at a recent United Kingdom Managers meeting. To celebrate the award Anne chose holiday vouchers.

### Long service awards

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<tr>
<th>Years</th>
<th>Names</th>
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<tbody>
<tr>
<td><strong>40 years</strong></td>
<td>Peter Lambert</td>
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<tr>
<td><strong>30 years</strong></td>
<td>Eric Brown, Anne Husband, John Watkinson, Kevin Robson, Leonard Charles Thomson</td>
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<tr>
<td><strong>25 years</strong></td>
<td>Steven Sherburn Sr, Kevin Ballard, Michael Sherburn, Leonard Thomson, Gary Morgan, Lindsay Brown</td>
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<tr>
<td><strong>20 years</strong></td>
<td>Leslie George, Melanie Holland, Keith Batley, David Stewart, Christopher Dennis, Leonard Potts, Roderick MacLean, Paul Buchanan, Clifford Singer, Peter Howe</td>
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<td><strong>15 years</strong></td>
<td>Anthony Edwards, Clwyd Davies, Bruce Winton, Barry Frizzell, Andrew Miles, Alan Cody, Hassan Ali Ehdhaya, Kenneth Black, Janet Higgins, Malcolm Webster, Andrew Hutchinson, Nigel Smith, Neil Harper</td>
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<tr>
<td><strong>10 Years</strong></td>
<td>Alan Brooks, Jason Neill Taylor, Craig Nutty, Derek Dixon, Ian J Forsyth, Christopher Hughes, David Ingleedew, Sam Partridge, Neil Riddle, Kim Temperley, Graham Nevison, Colin Redhead, Kirsty Harrington</td>
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It’s a family affair!

Oceaneering Inspection could be accused of nepotism in Aberdeen operations, if it weren’t for the fact the family McNab are a dedicated, well qualified and experienced bunch of Scots. Jim, brother Iain, daughter Carolyn and son Stuart all work from the Aberdeen office in various roles. The family can claim a grand total of 34 years unbroken service between them, with their age profile ranging from 54 down to 20. A bonus from this close-knit situation arose recently when an important client required a Computed Radiography (CR) investigation carried out on an offshore oil and gas installation. Dad Jim is a leading authority in the development of CR worldwide, whilst son Stuart is a qualified rope access radiographer, and, as circumstances would have it, this particular combination was requested by the client for an inspection that was a little out of the ordinary.

A critical, very thick 4” flowline was suspected to have severe internal weld root corrosion detected by “button probe” ultrasonic tests. However, several previous attempts to confirm and measure the remaining pipe wall thickness with CR were unsuccessful, partly due to the masking effect from internal fluids and the sub optimal technique choice. The task was to establish whether CR could confirm the ultrasonic test results.

After numerous conversations at home, a plan was developed to perform the work to the correct technical, safely and professional standards using rope access techniques. On arrival offshore, this plan was executed using several less common technique set-ups to deliver the pipe thickness information and eventually the work was completed to the client’s satisfaction. The CR tests confirmed the ultrasonic reflections were likely to be from internal slag rather than through wall corrosion.

An added twist to the tale is that the radiation exposure was made offshore using the Oceaneering SCAR System - a system developed by Jim with Sentinel QSA based in Boston, and recognised as the safest radioisotope exposure system in the world.

Carolyn McNab (22) who works in the Finance Department in Aberdeen has also completed her IRATA Level 1 Rope Access qualification.

Oceaneering Inspection

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Statements in this newsletter that express a belief, expectation or intention, as well as those that are not historical fact, are forward looking. The forward-looking statements include the statements concerning Oceaneering’s expected contract revenue and anticipated average annual revenue. These forward-looking statements are made pursuant to the safe harbor provisions of the Private Securities Litigation Reform Act of 1995 and are based on current information and expectations of Oceaneering that involve a number of risks, uncertainties, and assumptions. Among the factors that could cause the actual results to differ materially from those indicated in the forward-looking statements are risks and uncertainties related to: industry conditions; prices of crude oil and natural gas; Oceaneering’s ability to obtain and the timing of new projects; and changes in competitive factors. Should one or more of these risks or uncertainties materialize, or should the assumptions underlying the forward-looking statements prove incorrect, actual outcomes could vary materially from those indicated. These and other risks are more fully described in Oceaneering’s latest annual report on Form 10-K and its other periodic filings with the Securities and Exchange Commission.