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COURTESY TO TRANSFIELD WORLEY

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Letter from the President

by Uri Nooteboom



Recently I had an opportunity to think back on some of the more useful subjects from high school, not claiming that they were not all useful of course! One topic that fascinated me at that time, and still does, is what is called Proof by Contradiction, taught as part of our math curriculum. The logic behind it could be equally applied to solving math problems or any other problems for that matter; the beauty being that you don't necessarily need to be a subject matter expert in any one of those disciplines, but just need to be able to apply logic; a little bit of philosophy does help as well.

The Latin term for this concept is "reductio ad absurdum" which actually defines it much better and would seem to make it particularly well suited for use by our lawmakers. But I digress. In simple terms what this concept does, it allows us to prove the truth of a supposition or theorem by proving the opposite cannot be true. Say what? Assume for a moment our supposition is NOT true; this then would lead to certain conditions which we know for certain cannot be true; which proves our original supposition must thus be true.

To prove my point I searched for an example (on the internet of course) and came across a rather famous one, called "Stevin's equilibrium on a sloping plane". Simon Stevin, the 16th century Flemish mathematician was known for his improvements to the windmill driven pumps used to pump water out of the Dutch polders to control flooding. As a point of interest, Stevin also deduced that the language spoken in the age of wisdom would have to be Dutch, because he had empirically determined that in that language, there were more monosyllabic words to describe concepts than in any other language at the time. Brevity is golden.

Here is the puzzle: Two spheres, interconnected by a wire via a pulley rest on two inclined surfaces with different angles, as illustrated; everything is assumed to be frictionless. Stevin's theorem was that in order to create equilibrium the weights of the spheres need be proportional to the length of the inclined surfaces. This of course can be fairly easily proven with a bit of geometry but what's the fun of that. This is a lesson in logic, not mathematics.

So this is the proof: distribute the weight along the two surfaces (in a 2-to-1 surface ratio there are twice as many weights on the longer surface), and interconnect the ends with a suspended string of equal weights. Now assume that the theorem is false and there is NO equilibrium (the "absurdum"); in that case the chain will start moving to a new position and still not find equilibrium; and it will continue moving: a Perpetuüm Mobile!! This of course cannot exist and thus the theorem is proven to be true.

On second thought, in the hands of our lawmakers "reductio ad absurdum" would most likely leave us with the Perpetuum Mobile as the solution to our budget impasse.



Assume for a moment our supposition is NOT true; this then would lead to certain conditions which we know for certain cannot be true; which proves our original supposition must thus be true. CENTRAL PROCESSING ACILITY (CPF) GAS EXPORT PIPELINE

> OFFTAKE TANKER

CONDENSATE

FLOATING PRODUCTION, STORAGE AND OFFTAKE VESSEL (FPSO)

INPEX Ichthys Integrity and Maintenance Contract (IMC)

by Mark McQueen and Rebecca Roth

TRANSFER LINE

> In late 2012, INPEX Australia Operations Pty Ltd awarded Transfield Worley, Perth a contract for the establishment of the Asset Integrity and Maintenance build for the INPEX Ichthys project execution phase, by INPEX Operations Australia Pty Ltd.

The Ichthys LNG Project is a Joint Venture between INPEX group companies (the Operator), major partner TOTAL group companies and the Australian subsidiaries of Tokyo Gas, Osaka Gas, Chubu Electric Power and Toho Gas. The Ichthys Field is located in the Browse Basin at the western edge of the Timor Sea and approximately 450 km north-northeast of Broome and 850 km westsouthwest of Darwin. The area covered in the lease is approximately 912 km² and is home to the CPF and FPSO facilities as well as subsea systems. A 885km subsea Gas Export Pipeline (GEP) will send dry gas to an onshore liquefied natural gas (LNG) plant in Darwin. The project is expected to produce 8.4 Mt of LNG and 1.6 Mt of Liquefied Petroleum Gases (LPGs) per annum. It will also produce up to 100,000 barrels of condensate per day.

The Ichthys IMC project encompasses five key assets, each of which is covered by a separate Asset Integrity Management (AIM) strategy which provides overall guidance for the integrity management of the systems. These five key assets are:

- 1. Central Processing Facility (CPF)
- 2. Floating Production and Storage and Offloading (FPSO) unit
- 3. Subsea Production Systems/Umbilicals, Risers and Flowlines (SPS/URF)
- 4. Gas Export Pipeline (GEP)
- 5. Onshore facilities

Through Workshare and application of the Local/Global model, Transfield Worley will provide overall project management and utilize the skills and knowledge of its three sister companies; Hofincons in Chennai India, INTECSEA in Houston USA and WorleyParsons Asset Integrity Solutions in Melbourne Australia, to deliver the Computerized Maintenance Management System (CMMS).

This project highlights the effectiveness of workshare and the local/global model allowing the customer to benefit from a world-class offering by utilizing the appropriate subject expertise from a number of locations.

INTECSEA is responsible for the SPS/URF and the GEP IMC workscope through the development and implementation of the associated AIM framework which is governed by the following suite of documents:

Asset Integrity Management (AIM) Strategy- provides an overview of the Integrity Management process and assetspecific issues.

Risk-Based Integrity Management (RBIM) Methodology- provides method statements for conducting a risk assessment and making recommendations for Inspection, Monitoring, Testing and Maintenance (IMTM) activities.

RBIM Report- documents the RBIM data, actions, and recommendations, including IMTM methods and frequencies.

Inspection Specification- covers systemspecific integrity requirements, including IMTM methods, frequencies and inspector qualification requirements.

Component Specifications- provide detailed instructions on component IMTM requirements.

The IMC contract has three phases:

Phase 1- AIM Strategy Development Delivers the documentation, processes and communication links that will allow the remaining two phases of the Contract to proceed flawlessly. This phase is near completion with the development of the AIM Strategy documents that specifically address the following aspects of AIM to each of the key assets:

- Regulatory and legislative requirements
- Asset Integrity Management (AIM) process
- Risk-based inspection
- Inspection, monitoring, testing and maintenance
- Anomaly management
- Repair and intervention
- Audit and review
- AIM programme implementation
- Management processes

Phase 2- limited notice to proceed (pilot

study) Tests the systems developed by the project team against those interfacing systems run by INPEX and various other contractors. This work is currently underway with each of the key assets selecting an equipment type to demonstrate the effectiveness of the Integrity Management processes. INTECSEA is tasked with the GEP and associated equipment (i.e.

GEP launcher/receiver, PLET, tie-in spools, gas export riser base) and has a scheduled completion for the 2nd quarter 2014. Deliverables within this phase are:

- Compiling asset registers with associated documentation
- Assessing equipment inspectability
- Developing inspection strategies and plans
- Developing acceptance criteria and inspection scopes of work
- Establishing individual Written Scheme of Examination per component
- Managing/Reviewing baseline surveys

During this phase a key challenge for INTECSEA was to develop a Risk Based Integrity Management (RBIM) Methodology because the INPEX RBI project tool of choice was applicable for pressure systems and not tailored to the SPS/URF and GEP. The purpose of the RBIM Methodology is to optimize the Inspection, Monitoring, Testing and Maintenance (IMTM) effort by identifying where the risks are highest and to demonstrate the effectiveness of barriers to minimize the risk to As Low As Reasonably Practicable (ALARP). This was successfully achieved with Risk-based Inspections workshops scheduled for 1st quarter 2014.

Phase 3- Full Implementation

Upon the successful completion of Phase 2 e.g. GEP pilot study, a multi-year programme to deliver the complete CMMS will commence. The remaining systems (e.g. SPS/URF) will be subject to the same processes that were successfully demonstrated and implemented in Phase 2, with INTECSEA workscope to be completed by mid-2015.

This project highlights the effectiveness of workshare and the local/global model allowing the customer to benefit from a world class offering by utilizing the appropriate subject expertise from a number of locations, including HVE through our Chennai office. It also demonstrates that WorleyParsons and its sister companies can provide a 'one-stopshop' for a customer's total integrity needs minimizing interfaces and project management costs leading to a more effective and efficient programme.

The project is still relatively in its early stages, but stay tuned for further updates.



Ichthys Field



AIM Document Suite

TECHNOLOGY NEWS

A Life of Field Flow Assurance Assessment for a Deepwater Gas Field Development

by Muhamad Yusuf



Figure 1 System Layout

INTECSEA's comprehensive global flow assurance capability provides expertise and solutions throughout the project life cycle. To help our customers understand and manage their flow assurance challenges, our teams of experts have adopted MAXIMUS[™], a state of the art design tool for steady state life-of-field simulation. As a representative example, an integrated life-of-field production model using MAXIMUS[™] was developed to determine the phasing strategy, drilling plan, topsides compression power and heater/ cooler duty requirements throughout field life for a deepwater gas development. The model also helped identify the best operating mode of subsea choking, in terms of hydrate management, and identified minimum well flow rates to avoid low operating temperatures subsea.

This deepwater gas development, with water depths of 500-1500m, was divided into two phases. Phase 1 consisted of 13 wells in 7 fields, and Phase 2 had 5 wells in 2 fields. A single 25-30 km trunkline was proposed for each phase such that it would allow both Low Pressure (LP) operations in Phase 1 and High Pressure (HP) operations in Phase 2, and enable the plateau gas to flow at a rate of 270 MMScfd for 20 years, through separate risers, to an FLNG facility (see Figure 1).

The objectives of this assessment were mainly to produce the phasing strategy (drilling plan) for the development and assess the thermal-hydraulics of the production system throughout the field life. In addition, topsides pre-processing facilities requirements such as compressor power, heater or cooler duties were also estimated from this assessment.

PHASING STRATEGY

Due to the decline in reservoir pressures over time, the number of wells needed at the onset of production would not be enough to maintain a gas plateau rate. At this point, either compression or additional wells would be required.

By performing a life-of-field simulation, the scheduling for compression, or for drilling of new wells, can be forecast relatively easily. Performing the life-of-field modelling on this project helped determine the timing for when compression would be required (at the point of phasing in the Phase 2 high pressure fields with Phase 1 in low pressure operating mode) as shown in Figure 2.

For this case study, it was found that Phase 1 wells in HP mode could maintain a gas rate of 270 mmscfd without compression up to Year 10. Then Phase 1 production continues in LP mode with full compression until Year 12. Phase 2 wells in HP mode will need to come online in Year 12 to make up for the shortfall in gas flow rates from the decreasing Phase 1 (LP) production. With this plan, plateau production is maintained to the end of Year 16 before it begins to drop off until a production cut-off point of 120 mmscfd is reached in Year 17.

TOPSIDES/SUBSEA CHOKING

Topsides choking was initially assumed to be beneficial to manage hydrates and cold operating temperatures subsea. A sensitivity analysis, again using MAXIMUSTM, was performed to assess subsea choking through field life, and compare it with topsides choking.

In terms of arrival temperatures at topside facilities, there was no significant difference between topsides and subsea choking. Gas arrives at the top of the risers at temperatures of -2°C (topsides choking) to -4°C (subsea choking) during HP production and -6°C during LP production.

In terms of temperatures downstream of the subsea choke, subsea choking resulted in lower operating temperatures at start of Phase 2 HP production, at approximately -17°C (worst case at low flow rate), while topsides choking maintained fluid temperatures downstream of the subsea choke at 18 to 40°C during Phase 2 HP production. The low temperature of -17°C

Full life of field analysis capability assists optimization of field design and performance considering each phase of the field life. MAXIMUS[™] provides INTECSEA and our customers a new tool to provide accurate and expedient results, not only in the initial phase of field development, but also throughout the field life.

for the subsea choking case occurs at low well flow rates; the low wellhead temperatures (FWHT) can be avoided operationally by slightly increasing the initial well flow rates.

Topsides choking operates the flowlines at about 200 barg initially, which declines to 100 barg during HP production phase. Subsea choking operates the flowlines at about 90 barg during HP production phase with outlet pressure of 65 barg. Topsides choking will require a greater degree of hydrate inhibition from MEG injection compared to subsea choking due to the higher pressures and similar low temperatures.

With subsea choking, the topsides pre-heater duty is significantly reduced from 10+ MW to less than 4 MW since there is no JT cooling across a topsides choke before the gas is heated to obtain a feed gas temperature of 15°C. Additionally, heater duty is more constant for subsea choking rather than a declining duty from a peak duty of 10+ MW for the topsides choking case.

Subsea choking results in lower operating pressures and temperatures during HP production downstream of the subsea well chokes. It should be noted that these conditions then favor reduced corrosion rates subsea at the well jumpers, manifolds and inlet to the flowlines.

In addition to assisting with the staging of gas compression and scheduling of Phase 2 drilling, the Life-of-Field model, using MAXIMUSTM, helped in selecting subsea choking as the base case for operating the gas production system due to the following:

- Subsea choking is inherently safer with respect to operating at lower pressures and thus lower gas inventories
- Reduced OPEX costs due to lower hydrate inhibitor requirements/consumptions rates as a result of operating at lower pressures
- Reduced hydrate inhibitor storage requirements due to lower consumptions rates
- Significantly lower and more constant preheater duty requirement
- Lower corrosion rates due to operating at lower pressures and temperatures subsea

CONSTRAINED/UNCONSTRAINED COMPRESSION

Compression was considered during the LP production phase (see Figure 2) to blow down the reservoirs to a low pressure and recover more gas from these reservoirs. Two operating cases were considered in the analysis, for comparison purposes, unconstrained and constrained compressor power. It was found that when compression power is unconstrained, the maximum compression power is 14+ MW, which would only be utilized for a short period of time. The constrained compression power case assumed compression power is limited to 4.5 MW (i.e. typical medium-sized compressor). Unconstrained compression power of up to 14+ MW could potentially extend the plateau production period for about a year with approximately 2% higher reservoirs recovery, when compared to constrained power of 4.5 MW, but results in higher operating costs (fuel gas for compression). Thus the stage is set for an economic tradeoff in selecting the optimum operating mode.

CONCLUSION

Full life-of-field analysis capability assists optimization of field design and performance considering each phase of the field life. MAXIMUSTM provides INTECSEA and our customers a new tool to provide accurate and expedient results, not only in the initial phase of field development, but also throughout the field life. This particular example has helped to show the versatility of the tool, and also illustrate the tangible benefits that can be achieved.



Figure 2 Gas Production Profile

"Our customers look to us to help them discover and deliver innovative and robust field development solutions which bring competitive advantages that allow them to achieve consistently high value from their investments. This alliance is a key part of our strategy in growing both organically and through alliances with leaders in respective fields".

WorleyParsons enters into Global Alliance with Decision Frameworks

by Michael Moorehead

In November, WorleyParsons entered into a global Alliance with Decision Frameworks, a firm specializing in implementing and fostering the use of Decision Quality within the energy industry to offer specialized advisory and training services to customers worldwide. The alliance combines the strength of WorleyParsons' *Select* and Enhanced Field Development Solutions (EFDS) Consulting experience in engineering, facilitation and project delivery services, with Decision Frameworks' extensive advisory and training experience in Decision Quality methods, tools and facilitation.

The Alliance will begin by focusing on the offshore upstream Oil and Gas industry in North America and Europe, and will grow over time to include the extended offering of WorleyParsons' global business.

The Alliance was formed in response to customer feedback to bring together experience and skills across both Appraisal and Development phases to solve more complex problems. The acceleration of adoption of Decision Quality Management in the Oil and Gas industry across all segments involved in an asset's life cycle make the further integration of Decision Quality practices and experience into post-Appraisal phases a natural progression of service offerings to our customers. WorleyParsons and Decision Frameworks personnel have worked well together in the past and both sides believe the time is right to expand and formalize the working relationship. The Alliance reflects our commitment to constantly enhancing our capabilities and expanding into new areas of growth for both companies.

Our global customer base now has access to experienced integrated teams of INTECSEA, WorleyParsons and Decision Frameworks personnel brought into a project when and as needed, regardless of which company engages the customer. Customers will immediately see the benefit of more Reservoir and Appraisal experience brought into Development projects and studies, as well as more Development experience entering into the more traditional Reservoir and Appraisal-related projects and studies. Additionally, customers will see a larger number and variety of offerings in the areas of workshops, training, problem framing and project jumpstarts in both Appraisal and Development phase projects.

This seamless integration of expertise and personnel translates into faster, smoother transitions during the progressions from Identify and Appraise to Development phases in an asset's life cycle, in addition to the service quality enhancements offered. As such it is a vital ingredient in WorleyParsons' expansion of services in our consulting practice, and more specifically, the EFDS consulting practice led by INTECSEA's Chuck White. It allows us to draw upon and apply best-in-class methods for facilitation, field valuation and Decision Quality to projects across the globe. Chuck White recently commented on the alliance stating "our customers look to us to help them discover and deliver innovative and robust field development solutions which bring competitive advantages that allow them to achieve consistently high value from their investments. This Alliance is a key part of our strategy in growing both organically and through connections with leaders in respective fields".

In the next few months, the Alliance will focus on expanding our services to our existing offshore Oil and Gas customers but are open to supporting a wider range of opportunities. The rollout program includes an internal crosstraining program to qualify more professionals for high value engagements in complex integrated projects and training. Such roles require capabilities and experience across a broad range of skills and services which can be quickly brought into a project or study. A secondary short-term goal is to expand the use of Decision Quality to more areas within the WorleyParsons group. Longer term, the Alliance will expand its footprint geographically to offer a stronger presence outside of North America and Europe, and then eventually expand the Alliance to cover industry segments outside of Oil and Gas.

For more information on Decision Frameworks, visit their website at www.decisionframeworks.com

Similarly, WorleyParsons group information may be found at **www.worleyparsons.com**

If you have any questions or feedback on the alliance or other initiatives within the Enhanced Field Development Solutions Consulting practice, please contact Chuck White or email efds@worleyparsons.com

ARCTIC NEWS

INTECSEA will Hit the Ice at the 2014 Arctic Technology Conference

by Joe Cocker, Duane DeGeer and Amy Sturge

The 3rd Arctic Technology Conference (ATC) will be held in Houston, Texas February 10-12, 2014. The event brings international parties together from all sectors including operators, engineering companies, government, service providers, universities, and product suppliers. WorleyParsons and INTECSEA will have an exhibit during the conference manned by representatives from throughout our global community.

The past year was a busy year for Arctic campaigns, projects and technology development. Many individuals from representative companies attend this conference and are expected to present their experiences, findings and technical advancements since the last ATC conference in December, 2012. Beyond sponsorship and exhibiting, INTECSEA, WorleyParsons and NANA WorleyParsons will be well represented in the technical program with 8 oral presentations, a technical course on Arctic offshore pipelines and a customer dinner. Keep an eye out for the following publications:

- Monotower Steel GBS Concept and Design Considerations – C. Wu, C. Ji
- Arctic Pipeline Leak Detection using Fiber Optic Cable Distributed Sensing Systems – P. Thodi, M. Paulin, L. Forster, G. Lanan
- Arctic Offshore Pipeline Design and Installation Challenges – M. Paulin, D. DeGeer, G. Lanan
- Trenching of Pipelines for Protection in Ice Environments - M. Paulin, J. Cocker, D. DeGeer
- A Disconnectable Production Dry Tree Semisubmersible Design Exposed to Icebergs in a Harsh Environment - A. Mansour, M. Dib, J. James, D Kumar
- Execution of a Winter Geotechnical Drilling
 Program on Ellesmere Island L. Martin, H.
 Kullmann
- Aboriginal Engagement and Development of Northern Projects - G. Bosgoed, D. Willier, B. Collet
- Highly Effective Sub-Arctic Pipeline Routing Evaluations Enabled by Spatial AHP - A. Palejwala, M. Paulin, K. Mower, C. White



The day following the conference, INTECSEA will hold an Arctic Offshore Pipeline course. This course will provide an overview of the key factors which differentiate Arctic offshore pipelines from conventional subsea pipelines, and will highlight some of the complex engineering challenges which have been addressed on successful pipeline projects offshore Alaska, Canada, Northern/Eastern Russia and other cold regions. Details about the course (venue, outline, registration) will be finalized soon and will be available at www. intecsea.com soon.

INTECSEA also plans to release an updated Arctic poster, available in the February 2014 edition of Offshore Magazine entitled: 2014 Survey of Arctic & Cold Region Technology for Offshore Field Development. This poster is updated regularly by INTECSEA and Offshore Magazine, and is published during the annual ATC event. The poster serves as a guide for those involved in Arctic development projects and contains a significant amount of information that has been well received by industry leaders contemplating field developments in the Arctic. A copy of the previously published 2012 version of the poster is available for download from Offshore Magazine online at: http://www.offshore-mag. com/maps-posters.html

Inside INTECSEA



Customer dinner at Dosey Doe Barn

DOT 2013 by Bill Westcott

This year's Deep Offshore Technology (DOT) International Conference and Exhibition was held in Houston, October 22-24, 2013, at The Woodlands Waterway Marriott Hotel and Convention Center and was a huge success! The conference drew over 1300 attendees from 33 different countries, as it continues to truly be an international event. Of the 600 delegates attending, over 275 were from operating companies.

The conference content for DOT 2013 reflected the industry's increasing demand for new technology and services to safely and efficiently grow the global reserves base from the world's most prolific and prospective resource play-deepwater. The exhibit hall showcased new equipment, technology and services to the deepwater industry.

Anadarko was the conference host company and as such we had the advantage of hearing from several of their key personnel throughout the week, starting with Don Vardeman giving the key note address, and Cory Weinbel informing us about Anadarko's prolific gas discovery in Mozambique and their plans to monetize it. Of course, INTECSEA continues to work with Anadarko on its international deepwater projects, including the Mozambique project.

INTECSEA was once again the conference "Fast Track Registration Sponsor" and had the benefit of being seen by all who took advantage of registering online.

This year, in addition to being one of the sponsors, INTECSEA and WorleyParsons jointly hosted a customer dinner party at the Dosey Doe Barn in The Woodlands. We ate and drank plenty, listened to live music from the Mark Jones Band, and even did some dancing as the evening progressed.

Next year's conference will be held in Aberdeen, so make plans as soon as you can. It promises to follow on with the great tradition that DOT continues to deliver.



Left to right: Alastair Walker and Chris Madeley from our Perth office were respectively named the 2013 recipients of the Special Recognition and Emerging Talent Awards by Subsea Energy Australia (SEA)

Subsea Engineering Leadership for SEA and SUT in Australia

Tracey Chapman, Subsea Pipelines Manager and Marius Martens, Riser Group Lead from our Perth office have been elected to the Board of Committee for Subsea Energy Australia (SEA). With over 13 years of experience in the offshore oil and gas industry, Tracey and Marius have developed strong leadership and technical involvement through a wide range of subsea pipelines, marine and riser projects globally. SEA is a non-profit industry association aimed at championing Australian subsea industry capabilities to the wider regional and global subsea markets.

Alastair Walker, Technical Authority Advanced Engineering, was elected to the Board of Committee for Society of Underwater Technology (SUT) for the Perth branch division. Alastair has over 35 years of experience in the subsea pipeline engineering. SUT is a leading multi-disciplinary learned Society bringing together individuals and organizations with a common interest in underwater technology, ocean science and offshore engineering.



SUT-TAMU Tailgate Party

INTECSEA Houston sponsored a tailgate party for Texas A&M engineering students prior to the Texas A&M University of Texas El Paso (UTEP) football game. The tailgate party was organized by the TAMU Society of Underwater Technology (SUT). This event was put on to encourage students to join SUT and to strengthen INTECSEA's relationship with a local university. John Allen, John Sanders and Ron Ledbetter attended representing INTECSEA. John Sanders and Ron Ledbetter spent much of their time talking with students and collecting resumes. The event was highly successful and opened the door for similar activities in the future.

INTECSEA Malaysia's Visit to Petronas by Suhaimi Ismail

INTECSEA's Malaysia team comprising of Suhaimi Ismail (Operations Director), Johan Samad (Field Development Manager) and Kevin Choong (Floating Systems Manager) visited the Offshore Engineering Centre of Petronas Technical University (UTP) on October 8th, 2013. UTP was established in 1997 and has grown to be one of the most prominent private universities in Malaysia. Offering a wide range of industry-relevant engineering and technology programs at undergraduate and postgraduate levels, UTP has produced more than 9,500 graduates and currently has an enrollment of 5,700 undergraduates and 1,250 postgraduates from over 55 countries.

The main objectives of the visit were to:

 Visit UTP's tank test facility believed to be suitable for the Free Hanging Solid Ballast semi platform (FHSB semi) and the Damper Chamber Column semi platform (DCC semi) model test. Explore the potential collaboration between UTP and INTECSEA in the area of offshore technology development.

The outcomes of the visit were positive. Further technical discussions and clarifications will be held to determine whether the tank test facilities are suitable for the intended model tests. A Memorandum of Understanding (MoU) between UTP and INTECSEA covering the following areas will be drafted and finalized soon:

- Staff industry attachment
- Students internship

.....

ii.

 Research collaboration in the following areas: floating system, offshore pipelines, subsea system and flow assurance

The KL Management team believes the collaboration with UTP will help give INTECSEA the edge over our traditional competitors in Malaysia, and possibly beyond since Petronas is now becoming a major player in other countries.



Above: UTP Campus in Perak, Malaysia

Below: Wave Tank (HR Wallingford) and Wave Flume (Edinburgh) Testing Facilities



Offshore Europe and the Gordon Highlanders by Christian Tribbe

Early September saw WorleyParsons and INTECSEA exhibiting for the first time at Offshore Europe, held bi yearly in Aberdeen. With 1,500 exhibitors from across the supply chain and 63,000 visitors descending upon Aberdeen, it is a truly world scale event in which the city takes great pride.

The global significance of the show was recognized with senior figures from

WorleyParsons and INTECSEA Houston and Perth joining UK managers to meet the great and the good of the offshore industry.

During the show, WorleyParsons and INTECSEA hosted a cocktail reception at the Gordon Highlanders Museum offering a chance to catch up with colleagues and network with customers.

WorleyParsons and INTECSEA have expressed their intent to return and exhibit in Offshore Europe 2015, and we in Aberdeen look forward to welcoming our colleagues back.



WorleyParsons and INTECSEA staff networking with customers at the booth

Semi-Annual Planning Conference

INTECSEA's Semi-Annual Planning Conference was recently held in Hyderabad, home to INTECSEA's newest operation in India. The INTECSEA Global Leadership Team, along with Craig Reeves and Jim Osborn of WorleyParsons, came together to assess the strategic objectives, get a clearer picture of our customers' needs and plan for the way forward.



Left: Phil Cooper, Richard Luff and Frank Drennan with the INTECSEA Hyderabad staff Above: Hyderabad team







To contact your nearest INTECSEA office, visit intecsea.com/contact_us.asp

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