UT2 100

The Offshore Technology Conference in Houston is an annual feature of exhibition diaries, often resulting in far-ranging business deals. Eighteen years ago, a conversation with the SUT's then Chief Executive, Ian Gallett was responsible for the launch of UT2.

The magazine has now reached its 100th edition.

John Howes, UT2 Editor, writes
"Having covered the offshore industry for decades, I became very interested in starting up my own magazine. This idea resonated with Ian who saw the value for the SUT in having a media vehicle that could provide contact with its members and generally promote underwater technology to a wider audience.

"We tentatively considered aspects of what eventually proved to be a useful symbiotic relationship. I would essentially produce an entire technical colour magazine, be responsible for editing and publishing and bearing the start up, printing and running costs but benefit from any future profits. Either side could pull away at any time.

"Ian approached the SUT council. Not without resistance, he successfully steered the proposal through and I commenced planning the first issue.

"But what to call it? The SUT already had a well-respected technical peer reviewed publication called *Underwater Technology*. I reasoned that the new colour magazine would be lighter, more commercial and dynamic. I proposed simply using the capital letters UT as a nod to the existing SUT publication. It wasn't until quite an advanced stage that a doctor friend said in passing that UT is often employed as an abbreviation for urinary tract. I put a squiggle next to the UT as a reminder to change it. In a draft, that squiggle was interpreted at the printers as a two and the title UT2 was born.

Inaugural Issue

"The magazine was to be free to SUT members and others, and rely on advertising. But who would advertise in a magazine that nobody has seen before? This is exactly why it is only large publishing houses with deep pockets that launch magazines. This was where the SUT came to the rescue.

"Some companies such as Total, ABS, Kongsberg, Kystdesign, Fugro, Acergy, All Oceans, SRD and Chevron took the leap of faith and supported the venture. After the issue, I wanted to go to Aberdeen to introduce the magazine but the printing had wiped me out and I was not able to afford the hotel and air fare.

"Within a year, however, companies such as Schilling, Nexans, FMC, Applied Acoustics, Subsea 7, Seaeye, SMD, Videoray, Tritech, Aker Kvaerner Seabotix, Atlantas Marine, Reson, Gavia, EMGS, MacArtney, Valeport and Cameron came in to support the magazine and it looked as though I could expand the magazine and pay off debts. It lasted for a few issues and then came the fall in oil price.

"Over the journey, we have ridden out many price falls, enjoying considerably more good times than bad and providing thousands of pages of original editorial.

"We put the magazine online. Nowadays, everyone does this but UT2 was one of the very first magazines to use 'page turning' software to view an online version of the magazine.

"In 2017, Zinat Hassan joined UT2, to look after the advertising and commercial side. This released me to launch a sister magazine Underwater Robotics which is dedicated to subsea vehicles of all types.

"What will be in the next chapter? Magazine publishing has changed but we are already planning ways to reinvent ourselves."

Past executives Bob Allwood and Ian Gallett

BIRNS 70

BIRNS, the high-performance underwater connector and cable assembly designer/manufacturer is celebrating its 70th birthday. On a visit to London, the company discussed some of the technology it has been developing recently.

“We introduced the BIRNS Meridian series, a new line of high ampacity connectors at Oceanology,” said Bruce Meredith, Technical Sales Manager.

“We have been providing high voltage connectors for many years, but have noted that enquiries for high current or ampacity connectors has risen recently."

BIRNS Meridian connectors are 225 Amps and 6km-rated, and are ideal for devices that have a high amperage power transfer requirement associated with them, such as battery packs and thrusters for crewed and uncrewed subsea vehicles.

"As battery systems are getting increasingly more advanced and thrusters are getting larger to allow vehicles greater speeds and depths, the demand for current capacity has also increased."

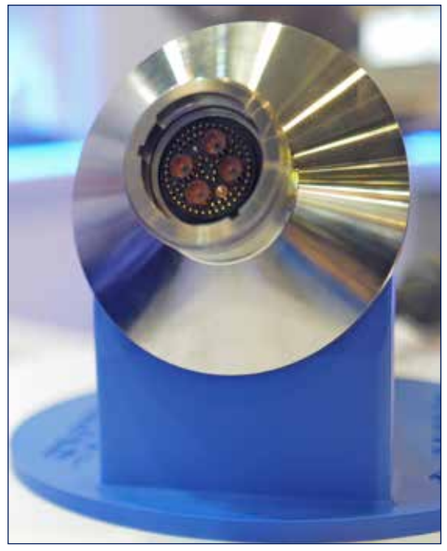
6000M Open Face Rated COAX Cable Assemblies

Select sizes are presently being DNV type-approved for 6km rated crewed submersibles. BIRNS Meridians are compact and feature 4 pin configurations, with more currently in development.

"A unique feature of such connectors is the very large pin diameters, for example, the M40 has a single 85 mm2 (3/0 AWG) contact," said Meredith

BIRNS Meridian M40-1 Titanium Connector Pair

"Both standard and reverse gender versions are featured in the series and all withstand reverse pressure. They can be installed into both dry and oil-filled canisters.



Hull penetrator face

Military-grade penetrator

6000M

"Our connector lines are all open face pressure rated to 6km. The exception for open face rating historically, for ours and others in the industry, were coaxial connectors.

"However, with recent testing, we’ve certified that both our 50 and 75 ohm coax connectors are rated to open face at 6000m depth, which is unheard of in the industry. Our BIRNS Millennium series 1C assemblies also achieve a remarkable -0.35dB attenuation and 1.2 VSWR at 3GHz. Low losses, high frequencies, and 6km open face pressure resistance—we feel that these performance characteristics are invaluable to our customers.

HULL PENETRATORS

"Another recent introduction is military grade hull penetrators for submarines, which we designed in response to a recent customer request. One challenging design aspect of a recent configuration was that the small receptacle not only contained 67 electrical contacts, but four coax connectors and two fibre optic lines, all within a sub-safe housing. Here at Oceanology we are excited to also launch new 6000 meter-rated DNV type approved penetrators for some major new contracts."

C-KORE800

Automated subsea testing tools specialist C-Kore Systems is celebrating the mobilisation of their 800th unit. The job is with a major operator off the W African coast for fault-finding operation on a complex subsea electrical network.

C-Kore has been assisting operators worldwide for over a decade with more than 300 subsea faults found so far! Its subsea testing units have gained worldwide acceptance with both operators and contractors for the cost-savings the tools provide, the reduction in offshore personnel required for testing, and the simplification they bring to subsea operations.

To date, C-Kore’s testing tools have been used on over 100 different fields by more than 80 different customers around the world in 23 different countries. With over 35,000 tests being run, it can safely be said that C-Kore Systems has a good understanding of subsea fault-finding.

After completing their offshore campaign, the Subsea Controls Engineer at a major operator commented, “We managed to locate another line fault in the system resulting in a EFL changeout and subsequent restoration of IR health."

OCEANEERING @ 60

With Oceaneering turning 60 this year, co-founder Mike Hughes mused upon the early days to the company.

"The company effectively started due to an insurance issue," said Hughes. "In order to work for an oil company, a diver requires some sort of insurance. We were quoted $2000 for a down payment on the initial premium. Five of us found $400, bought the policy and formed Worldwide Divers working out of a rent house in Bayou Vista, each owning a 20% share.

"I told everybody that they can each take 20% or I can run the business, do the payroll etc, but as this would keep me from diving, I would require 40% with everybody else taking 15%. This was preferable to them as we all had our own equipment. There was not a lot of investment in the company and none of us thought shares or interest in the company would amount to much anyway.

"At the time, Union Carbide Corporation had bought a diving company named Ocean Systems. They were funding mixed gas research and decompression technology. They also looked to hire the best divers.

"Divers were paid a depth premium and with this temptation of Ocean Systems capturing a lot of deep work, they lured away three of our guys, leaving only Johnny Johnson and myself as remaining partners.

"Business grew to a point where I couldn't handle the work all by myself, so with just the two of us we revised the management. His 15% would rise to 49% while my 40% would rise to 51%. In 1969, we merged WorldWide Divers with California Divers (Cal Dive) and then with Vancouver-based Can Dive.

"We were consistently being asked to go deeper. Even when I started diving in the Gulf of Mexico, nobody was diving commercially with SCUBA gear because we needed communications with the surface. If we had a wire, we might as well have a hose which gives the advantage that you can stay down pretty continuously if you're working at a shallow depth.

Oceaneering's Millennium ROV at the National Buoyancy Laboratory

"One of the things that ex-Can Dive's Phil Nuytten proposed, which I had never thought about and I'm sure no one else in there had, was the development of a capable one-atmosphere diving suit.

The idea of a one-atmosphere diving suit would be a huge breakthrough because there would be no more need for decompression. We incorporated this into our portfolio

This is an excerpt from an interview by Bill Mallin VP Global Marketing and Communications. The full interview is available from the *oceaneering.com/60-year*

The TROV, one of the first workclass ROVs

This had its limitations. As water depths continued to increase, it became necessary to look at the new remotely operated vehicles that were being funded by the US Navy.

All these could do were observe – they could not perform any tasks– but they looked very interesting. Oceaneering acquired Ocean Systems who had already started developing some technology.

Since these early days, Oceaneering has expanded into Umbilicals, Leisure and even Space as the experience of astronauts has very similar parallels with working underwater. Our divers now train astronauts in the Neutral Buoyancy Lab at NASA's Johnson Space Center and designed and produced that toolkit for the Hubble telescope.

Neutral Buoyancy Laboratory

25 YEARS FOR OISL

Oceaneering 's wholly-owned subsidiary, Oceaneering International Services Limited (OISL), is celebrating the 25th anniversary of its operations at the Port of Rosyth. OISL provides operational and manufacturing support to the U.K., Europe, Africa, and the Middle East.

The company was originally based in the Port of Leith but became one of the first tenants to occupy the Port of Rosyth when it was established in 1999.

The Port of Rosyth is home to Oceaneering's U.K. umbilical manufacturing facility. The site is equipped with state-of-the-art manufacturing capabilities and produces subsea umbilicals and hardware to meet diverse customer specifications.

The Rosyth site is also home to Oceaneering's Testing, Qualification, and Reliability Laboratory, a purpose-built facility designed to meet the requirements for topside and subsea component and assembly qualification and factory acceptance testing.

Earlier this year, the Rosyth facility achieved 'Fit 4 Offshore Renewables' Granted Status from the Offshore Wind Energy Council and ORE (Offshore Renewable Energy) Catapult.

Oceaneering's Umbilical facility in Rosyth