wiredIn USA

www.wiredInUSA.com Issue No. 67 - January 2017

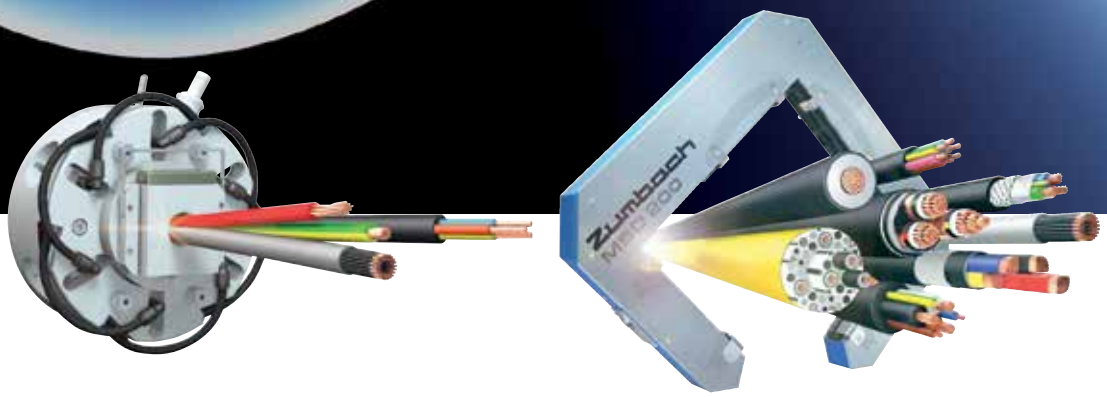
America's online magazine for wire and cable

$1bn telecom takeover deal

page 9.

Get Your Sheathing Process Under Control

Based on decades of experience in on-line measuring solutions, developing key technologies and optimizing processes, ZUMBACH is YOUR partner!



- Best price-performance ratio in the market
- Faster start-ups / Scrap optimization
- Measure and adjust eccentricity from the very first second regardless of the materials' temperature
- Investment recovered within a few months

Learn more about our unique solutions

Zumbach

SWISS PRIME MEASURING SINCE 1957

ZUMBACH Electronics
sales@zumbach.ch I www.zumbach.com

EDITOR

Happy new year to all our readers and advertisers.

While the world relaxed a little during the holiday season, company purchases appeared on the increase towards the end of 2016.

The Zayo Group closed out the year by entering into an agreement to acquire Electric Lightwave, formerly known as Integra Telecom, for $1.42 billion. Electric Lightwave provides infrastructure and telecom services, primarily in the western United States. You can catch up with the full story on page 9.

It is also looking likely that a power line to run under Lake Champlain linking suppliers in Canada with consumers in southern New England has won a key federal permit. Transmission Developers Inc has received a presidential permit from the US Department of Energy for the 154-mile, $1.2 billion power line. Turn to page 11 for full details.

Patrick Industries Inc has finalized its purchase of Sigma Wire International LLC and KRA International LLC, both based in Indiana. The company projects the combined 2016 revenues of Sigma and KRA to be approximately $21m. You can read the full story on page 12.

David Bell
Editor

CONTENTS

January 2017 Issue No.67

wiredIn USA

INTRAS LIMITED
INTRAS

© 2017 Intras Limited UK ISSN 2046 - 9497

Publishers of EuroWire and
Wire & Cable ASIA magazines

INTRAS OFFICES

Europe:
46 Holly Walk, Leamington Spa
Warwickshire CV32 4HY, UK
Tel: +44 1926 334137
Fax: +44 1926 314755
Email: read@wiredinusa.com
Website: www.wiredinusa.com

USA:
Danbury Corporate Center,
107 Mill Plain Road,
Danbury, CT 06811, USA
Tel: +1 203 794 0444
Email: doug@intras.co.uk

NEWS

Editor
David Bell
david@wiredinusa.com

Features Editor (USA)
Dorothy Fabian

Features Editor (Europe)
Gill Watson

Publisher
Caroline Sullens

SALES & MARKETING (INTERNATIONAL)

Sales Manager
Jason Smith
jason@wiredinusa.com
+44 1926 834 684

Accounts Manager
Julie Case
juliecase@intras.co.uk

DIARY

Shows & Events 2017

MARCH
7-8 March 2017

ACME 2017
Dubai,
United Arab Emirates

www.integer-research.com

MARCH
7-9 March 2017

AMI Cables 2017
Cologne
Germany

www.amiplastics.com

MARCH
23-25 March 2017

TEL
Istanbul,
Turkey

www.tel-fair.com

MAY
8-11 May 2017

Interwire
Atlanta,
USA

www.interwire17.com

JUNE
5-8 June 2017

wire Russia
Moscow,
Russia

www.wire-russia.com

JUNE
28-30 June 2017

The 18th China International Spring Industry Exhibition
Guangzhou,
China

www.julang.com.cn

For more info visit:
www.wiredinusa.com/showinfo.php

Here's a great solution for:

Measuring Sector-Shaped Power Cables.

>> BETA LaserMike ActiveScan™ Measurement System

The solution:

ActiveScan effectively and reliably measures the height and width of sector-shaped cables, such as straight and pre-spiraled cables, at the hot or cold end of the extrusion line with the highest precision regardless of product alignment or angular rotation.

Why it's great:

- Measures product height and width up to 40 mm
- Measures at any line speed with ±0.001 accuracy[1]
- Precisely determines minimum and maximum dimensions
- Completely pneumatic system for reliable, long-lasting operation
- Interfaces with Profibus, Profinet, Ethernet IP, and RS-232
- Conforms to CE standards

[1]±0.02% of product size

- ✓ **Faster product changeovers**
- ✓ **Complete process control**
- ✓ **Higher productivity**
- ✓ **Greater manufacturing savings**

(Go to Resources/Literature/ Application Notes)

Discover how ActiveScan can help you achieve greater profits. Download the application note today!

NDC TECHNOLOGIES

www.betalasermike.com/wi2

Americas
Tel: +1 937 233 9935
Fax: +1 937 233 7284

Europe
Tel: +44 1628 401510
Fax: +44 1628 401511

Germany
Tel: +49 231 758 930
Fax: +49 231 758 9333

Asia
Tel: +86 21 6113 3688
Fax: +86 21 6113 3616

Visit us at IWCS, November 9-12, Booth 106

Cables 2017

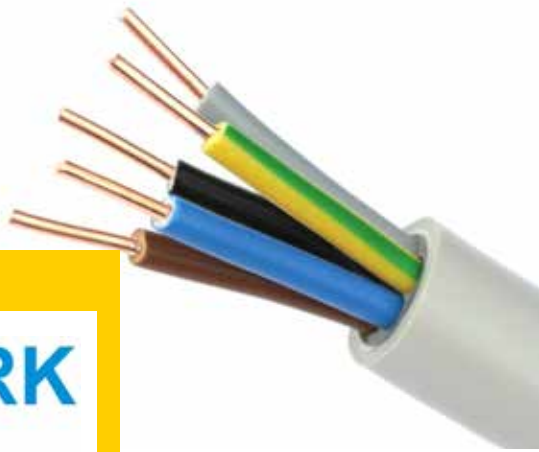
The international conference and exhibition for polymers in wire & cable

7-9 March 2017
Maritim Hotel,
Cologne, Germany

Reasons to register

- Get an update on current & future market trends; novel approaches in materials and additives; developments in testing, performance and regulation and developments in applications
- Listen to 'hot topic' presentations from leading industry participants: Prysmian, Nexans, Borealis, VDE Institute, Beijing Institute of Technology and many others
- Not-to-be-missed opportunities to network with leading executives and industry experts

To book your place at a reduced rate
contact Laura Richardt : lr@amiplastics.com
+44 (0) 117 314 8111



HEADLINE SPONSOR

MARTINSWERK
A HUBER COMPANY

Organised by:

Also sponsored by:

Media supporters:

SPECIAL WIREDIN OFFER SAVE €100: Contact lr@amiplastics.com & quote **WIREDIN**

MAKING THE

NEWS

$1bn telecom takeover deal

Zayo Group Holdings has entered into an agreement to acquire Electric Lightwave (formerly known as Integra Telecom) for $1.42 billion. Electric Lightwave provides infrastructure and telecom services, primarily in the western United States, with 8,100 route miles of long haul fiber and 4,000 miles of dense metro fiber.

"Electric Lightwave provides us another unique and dense regional fiber network that advances our position as the only national independent infrastructure provider remaining in the US," commented Zayo chairman and CEO Dan Caruso.

Approximately 40 percent of Electric Lightwave's existing revenue aligns with Zayo's infrastructure-focused business segments and will be rapidly integrated into the core Zayo organization, processes and systems. The remainder has a customer base that aligns well with Zayo's Canadian SME and voice businesses. "Zayo has a proven track record of integrating key fiber infrastructure assets while also maximizing the value of more traditional telecom business units," Caruso added.

Zayo expects to achieve significant revenue and cost synergies over the coming quarters, driven by the efficiencies of scale and Zayo's proven integration process. Zayo's Tranzact platform and Salesforce.com implementation is expected to provide "seamless online access" to viewing, purchasing and managing the combined customers and network.

join the best worldwide

wire/Tube Düsseldorf: Innovations go global

Take advantage of the highest calibre expertise of the No. 1 international fair as the show goes global. Draw on international synergies from these leading trade fairs. A cycle of regional events, staged in succession around the globe, responding to local market and customer needs. Detailed information on the full programme can be found at:

www.wire.de
www.tube.de

For show information:
Messe Düsseldorf
North America
150 North Michigan Avenue
Suite 2820
Chicago, IL 60601
Tel. (312) 781-5180
Fax (312) 781-5188
E-mail: info@mdna.com
http://www.mdna.com

For hotel and travel arrangements:
TTI Travel, Inc.
Tel. (866) 674-3478
Fax (212) 674-3477

Messe Düsseldorf

Lake project gets the go-ahead

A power line to run under Lake Champlain to link suppliers in Canada with consumers in southern New England has won a key federal permit.

Transmission Developers Inc announced that its TDI-New England subsidiary had received a presidential permit from the US department of energy for the 154 mile, $1.2 billion power line, known as the New England Clean Power Link. CEO Donald Jessom predicted construction could start in late 2017 or early 2018.

"This interconnection is a vital link that will unleash low carbon, cost effective electricity from Canada for the benefit of New England, replacing fossil fuel generators and lowering energy prices," Jessom said in a statement.

The company is thought to be the first of several firms with similar plans to get the go-ahead for its project.

The power line will run north to south under Lake Champlain, which sits between northern New York state and Vermont and extends into Quebec. Jessom said it would be placed on the lake bottom in deeper parts of the lake, and buried where the water is shallower, to avoid entangling boat anchors and fishing lines.

NEW! **Clinton High Frequency Spark Tester**

- ✓ Auto calibration with Clinton STCAL system
- ✓ Pinhole and bare wire differentiation
- ✓ Detachable display can be located 25' away
- ✓ Flexible front panel password security
- ✓ Optional Ethernet/IP, PROFINET, PROFIBUS Modbus TCP and Analog communications
- ✓ Easy connection to most PLCs
- ✓ Voltage Watchdog

HF-15B Spark Tester

Clinton INSTRUMENT COMPANY

(860) 669-7548 www.clintoninstrument.com

Widening the market by acquisition

Patrick Industries Inc has completed the acquisition of the business and certain assets of Sigma Wire International LLC, and KRA International LLC, both based in Indiana. Sigma is a manufacturer of PVC insulated wire and cable products, primarily for the recreational vehicle and marine markets. KRA, which operates primarily in the RV and industrial markets, is a manufacturer of wire harnesses and associated assemblies for vehicles, the defense industry, and automotive aftermarket products.

The company projects the combined 2016 revenues of Sigma and KRA to be approximately $21 million. Sigma and KRA will continue to operate on a stand-alone basis under their respective brand names in their existing facilities.

"The specialized design and engineering capabilities, manufacturing processes and…production equipment that Sigma and KRA possess, in conjunction with their industry leading reputations in the markets they serve, afford us the opportunity to further expand our presence and capabilities in the RV, marine, industrial, custom commercial vehicle and heavy duty vehicle markets," said Todd Cleveland, CEO of Patrick.

Andy Nemeth, president of Patrick, added: "Consistent with previous acquisitions, we will support Sigma and KRA with a financial and operational foundation that will allow each of them to expand on their existing brand value and capitalize on their core competencies while preserving the entrepreneurial spirit that has been so important to their success."

SIKORA
Technology To Perfection

Quality in its purest form.

With passion, we develop future-oriented inspection and sorting devices for the quality assurance of plastic pellets, such as the **PURITY SCANNER**. A so far unique solution, which combines X-ray technology with an optical inspection. A technological progress significantly increasing the quality of material and end products and saving costs.

- detects contamination from 50 µm inside the pellet and on its surface by X-ray and optical cameras
- purest material and highly qualitative end products due to automated sorting
- efficient production without time-outs and scrap
- suitable for different applications independent of material and color

www.sikora.net/purityscanner

Acquisition to galvanize production

Coastal Wire Co Inc of Georgetown, South Carolina, has acquired all assets of Casa Grande Wire and Cable Inc of Casa Grande, Arizona, including its manufacturing facility complete with galvanizing line, wire drawing machines and ancillary equipment.

The acquisition of the privately owned producer gives Coastal Wire a broader geographic footprint and an expanded product line. Coastal Wire will now manufacture a full range of low carbon black annealed wire, Kleengreen® wire and galvanized wire products, including high-carbon and high-tensile.

Coastal Wire's president and CEO, Doug Wendel Jr, said: "This purchase fits well with our strategic growth strategy of expansion -- expanding not only our manufacturing capabilities but [also] expanding our geographic footprint. Casa Grande represents a unique opportunity as a fully functional, high volume manufacturing line with an excellent existing customer base in both recycling and agricultural products."

Jason Hendrix, chief financial officer of Coastal Wire, added: "As a leading manufacturer of black-annealed wire products, we have been asked by many of our customers to expand our product offerings to include hot-dip galvanized wire."

Coastal founder and owner Michael Coward commented: "By incorporating Casa Grande's world-class galvanized products, we will be better positioned to meet all of our customers' needs. We couldn't ask for a better opportunity to fuel Coastal Wire's growth and deliver increased value to our customers."

Coastal Wire will take over Casa Grande's operations with immediate effect, and will manufacture and ship from its Casa Grande and Georgetown plants.

wiredIn
USA

EASIER QUICKER LIGHTER

Unique, original-content news and information for the domestic US wire and cable market.

available on-line

FREE...

so pass on to colleagues !

www.wiredinUSA.com

Leaders from Georgia Power and the US Army, community leaders and other dignitaries at Fort Stewart near Hinesville dedicate a new 30MW on-base solar facility. Photograph courtesy of Georgia Power

Solar base

Leaders from Georgia Power and the US Army joined elected officials, community leaders and dignitaries at Fort Stewart near Hinesville, Georgia to dedicate a new 30MW on-base solar facility. The 30MW alternating current, or 42MW direct current, solar facility is the fourth completed by Georgia Power in collaboration with the military, joining similar on-base solar facilities recently unveiled with the US Army at Forts Benning and Gordon, as well as the naval submarine base (SUBASE) at Kings Bay.

Georgia Power is currently developing over 150MW of solar generation to serve the state's electric customers through five large-scale projects with the US Army and Navy. Construction of the fifth project at Marine Corps Logistics Base (MCLB) Albany is currently underway.

The Fort Stewart solar facility was built and is owned and operated by Georgia Power with energy delivered to the state's electric grid at or below the company's avoided cost (the amount projected it would cost the company to generate comparable energy from other sources). Including related transmission and distribution infrastructure, the solar project at Fort Stewart occupies 250 acres, utilizing approximately 139,200 ground-mounted PV panels.

In coordination with the Georgia Public Service Commission, Georgia Power continues to develop renewable energy as part of a diverse generation portfolio through programs designed to prevent upward pressure on customer rates.

Offshore project

Deepwater Wind has announced its plans for the Skipjack wind farm, a new offshore wind farm to serve Maryland.

At 120MW, the Skipjack farm will be the state's largest renewable energy project, and it is expected to be built in a single construction season.

It will be located 17 nautical miles northeast of Ocean City's coastline, to avoid impacting on views from the shore.

"We're bringing down the cost of American offshore wind energy in a big way," said Deepwater Wind CEO Jeffrey Grybowski. "Ratepayers in Maryland will benefit from energy that is both clean and affordable.

"The Skipjack wind farm is the right clean energy solution for Maryland, and we're ready to get to work."

High voltage venture

Essex Magnet Wire, a subsidiary of Superior Essex Inc, and Furukawa Electric Co Ltd have announced their intention to form a joint venture to supply a new type of winding high voltage wire (HVW) to the European automotive industry.

The joint venture will manufacture, market, sell and distribute HVW used in electrical-driving motors, generators and reactors for automotive vehicles. The venture combines the resources of Essex Magnet Wire's European sales force and manufacturing operations with Furukawa Electric's technology. Furukawa Electric will license its technology to the joint venture.

Based in Bad Arolsen, Germany, the joint venture will operate under the name Essex Furukawa Magnet Wire Europe. Although Essex Magnet Wire will be the majority shareholder, the parties expect to operate the joint venture as a commercial partnership.

The formation of the joint venture is expected to close in the first quarter 2017, following the execution of definitive agreements and the receipt of required regulatory approvals.

Superconductive research funding

Superconductor Technologies Inc (STI) will receive a $4.5 million program award from the US Department of Energy's (DOE) Office of Energy Efficiency and Renewable Energy (EERE), on behalf of the advanced manufacturing office, for its Next Generation Electric Machines (NGEM) program. Collaborating with STI is TECO-Westinghouse Motor Company (TWMC), Massachusetts Institute of Technology (MIT) and the University of North Texas (UNT). The combined team will focus on improving the manufacturing process of superconductive wires to improve performance and yield while reducing cost at high enough temperatures to allow the use of nitrogen as the cryogenic fluid.

"Advancing these enabling technologies has the potential to boost the competitiveness of American manufacturers and take the development of more efficient electric machines a giant step further," said Mark Johnson, director of the EERE advanced manufacturing office. "These technology R&D projects aim to significantly improve industrial motors for manufacturing, helping companies who use these motors in manufacturing [to] save energy and money over the long run."

STI's president and chief executive officer, Jeff Quiram, added: "The significant wire improvement goals for this program will address our customers' desire for increased infield magnetic performance and high performance/low cost wire for many applications, such as motors, generators, magnets, power cables and MRI machines. STI expects to transition from R&D to full scale production of motor- and generator-optimized wire during the three-year project plan."

Award for wideband paper

Tom Donovan
President and CEO

The fiber research department of Panduit Corporation has received the IWCS "Jack Spergel memorial award for outstanding technical paper" for its "Characterization of modal dependence of MMF (multimode fiber) chromatic dispersion for wideband MMF" paper. The result was announced at this year's IWCS conference in Providence, and awards presented to each of the contributors.

The paper develops the theoretical background, proposes a test methodology, and provides experimental validation of a revolutionary characterization method applicable to next generation wideband multimode fiber. The work is part of Panduit's contribution to the development of wideband MMF (for use in OM5 cable). In addition, contributor to the paper Dr Brett Lane serves as chairman of the joint task group in the Telecommunications Industry Association (TIA) in which the fiber was developed.

Of the award, Panduit president and CEO Tom Donovan said: "This is a tremendous achievement for Panduit's fiber research team and shows the impact of Panduit's significant investment in our world class fiber lab. Advancements in multimode fiber are critical to the industry and are inherent in Panduit's philosophy of developing technology for our customers which solve tomorrow's challenges today."

Powering Colorado

Duke Energy Renewables has acquired the 13MW Victory solar power project in Adams County, Colorado, from its developer juwi Inc.

"Victory is our first solar project in Colorado, where we already have an operating wind energy site," said Rob Caldwell, president, Duke Energy Renewables and Distributed Energy Technology. "It's the fiftieth solar project in our growing US renewables footprint, and juwi's high quality site marks another milestone in expanding our solar presence in the western part of the country."

The solar site is already in operation.

"IREA has been tremendous to work with throughout all stages of this project and should be praised for its leadership in bringing clean, safe and reliable energy to its customers," said Michael Martin, CEO, juwi Inc.

The Victory site was built by juwi's construction affiliate, JSI Construction Group LLC, and JSI O&M Group LLC will be performing operation and maintenance services. The project consists of 47,880 ground-mounted panels.

In its commercial business and regulated utilities, Duke Energy owns and operates around 2,900MW of wind and solar energy, having invested over $4 billion in renewable energy.

Solar Panels
Image: Duke Energy

Funding for efficiency

The US Department of Energy has announced a $4.5 million grant to Venkat Selvamanickam MD, Anderson chair professor of mechanical engineering at the University of Houston (UH). Selvamanickam's aim will be to boost the manufacturing of high performance superconductor wires for next generation electric machines.

The award is one of 13 projects funded to advance technologies for energy -efficient electric motors through applied research and development.

"Advancing these enabling technologies has the potential to boost the competitiveness of American manufacturers and take the development of more efficient electric machines a giant step further," said Mark Johnson, director of DOE's Office of Energy Efficiency and Renewable Energy. "These technology R and D projects aim to significantly improve industrial motors for manufacturing, helping companies who use these motors in manufacturing [to] save energy and money over the long run."

Selvamanickam is an expert in superconductor manufacturing. He is the co-founder of SuperPower, which produces superconducting electrical wire, and has continued his research since joining the Houston faculty in 2008. He also is director of the advanced research hub at the Texas Center for Superconductivity at UH and manages the advanced manufacturing institute at UH.

"Superconducting motors and generators, made with the wire that will be manufactured using the technology developed in this program, can lead to more than six billion kilowatt hours of annual electricity savings and reduce CO^2 emissions by nearly a million tons per year," Selvamanickam said, adding that the funding will enable the use of superconducting machines at liquid nitrogen temperatures, which can lead to a widespread commercialization of this technology.

Selvamanickam's team is believed to have been the first to manufacture thin film superconductor wire, which is used by over 200 institutions around the world for applications including wind generators, energy storage, power transmission cables, magnetically levitated trains, medical imaging and defense.

Changing roles on board

The board of directors at Belden Inc has elected John Stroup as chairman, in addition to his current roles of president and CEO. Mr Stroup has been a member of the board since October 2005.

Previous chairman Bryan Cressey will remain on the board as the lead independent director, and will continue to serve on the nominating and corporate governance committee and the finance committee. Mr Cressey, who has been chairman of the board since 1988, and a director of the company since 1985, said: "I love working with Belden's culture of growth and continuous improvement. Its superb management team and the exceptional talent and teamwork of the directors will propel strong performance into the future, which I will be part of as lead independent director."

During his tenure as chairman, Mr Cressey has overseen a significant transformation, in which the company has grown from a domestic cable manufacturer to a global signal transmission solutions provider.

Stroup said: "I want to thank Bryan for his many contributions as chairman, and I look forward to working with him and the entire board to continue the foundation he established of creating value for our shareholders."

EUROPE

NEWS

All aboard for nacelles

image: www.siemens.com/press

Siemens Wind Power has commissioned its first specialized transport vessel, the *Rotra Vente*-, for cost, effective transportation of the large nacelles used in Siemens' direct drive offshore wind turbines. The 141m vessel can carry multiple 8MW nacelles per trip, and will connect Siemens' manufacturing site in Cuxhaven, Germany, with installation harbors in the North and Baltic Seas. Siemens, and its logistics partner, deugro organization, celebrated the delivery of the ship to the Danish harbor of Esbjerg. *Rotra Vente*'s sister ship – a transporter for towers and blades – is already under construction for delivery in spring 2017.

Designed from the existing hull of a container ship, the vessel was rebuilt for its new purpose at Holland Shipyard in Hardinxveld-Giessendam in the Netherlands. Part of its new equipment is a large bow door that allows RO-RO access to the restructured cargo deck. The deck is covered by a telescopic roof to protect the nacelles from salty seawater spray during transportation. Since the roof can be opened, *Rotra Vente*'s cargo can also be loaded by crane wheN a roll on-roll off ramp is unavailable.

Michael Hannibal, CEO offshore of Siemens Wind Power, said: "When our new factories in Hull, England, and Cuxhaven, Germany, become fully operational, and both vessels are in service… we expect savings of 15 to 20 percent in logistics costs compared to current transport procedures. This is another important contributor reducing the cost of electricity from offshore wind."

Looking to the (Middle) East

Lemo Group has launched Lemo Middle East, to serve as a hub to support customers in the Gulf states and, at a later stage, to serve other countries of the Middle East.

From its office in Dubai, Lemo Middle East will handle sales, and technical support, and will keep a local connector stock, representing the Lemo, Redel and Northwire brands.

Lemo's board of directors has appointed Mr Ahmed Abdallah as general manager for the new entity. An Egyptian national who is fluent in English and Arabic, Ahmed has been established in the UAE for nine years and has solid experience in the Gulf and Middle Eastern markets. His background is in electrical engineering, specializing in cables and accessories.

Communication cut off for island

Daragh McDermott, director of corporate affairs for JT

In late November 2016, the Channel island of Jersey suffered major telecommunication and broadband disruption after a ship, believed to be a liquefied petroleum gas tanker, dragged its anchor along the seabed and broke through three of the island's four main undersea fiber optic cables.

Predictions were that it could take local operator JT at least a week to repair the breaks, with most local traffic taking a detour via a separate cable to France. The fourth cable was safe due to being on the opposite side of Jersey.

"It is unlucky and unprecedented for three submarine cables to the UK to be cut in the same day, and it proves the value of having multiple links in the network, in order to provide a back-up connection via France. There are lots of cables running across the seabed, and we understand that it is not just JT who have been affected in this way, with other cables also having been cut."

However, only one of the cables was repaired within the week. The remaining cables could be out of commission until the end of December 2016.

Replacing the sheerleg at sea

Mammoet Europe has successfully concluded the lifting and handling of the cabling equipment for the Nordergründe offshore wind energy project using a custom-built hoisting system.

VBMS was contracted to install a 28km electrical cable to connect Nordergründe's offshore substation to the onshore power grid. VBMS planned on using its BSSII burial sledge system to put the cable into the seabed by fluidizing the soil and simultaneously laying the cable.

During the project, VBMS would occasionally need to launch and recover the BSSII - normally requiring a floating sheerleg. However, using a floating sheerleg would put severe restraints on the project and can be costly. VBMS involved Mammoet in the early stages of the project and asked the company to find a solution.

After a 12-day quayside assembly period, the system was installed on the barge and was fully operational within two days, allowing the client to minimize barge rental time and get the job done quickly and efficiently.

High voltage chair appointment

Image credit: Thomas Klewe

Dr Ralf Pietsch has been appointed chairman of the CIGRE SC D1 "Materials and emerging test techniques" study committee. Key topics for the study committee are new materials and diagnostic techniques in the field of electrical engineering, and new test methods.

The principal aim of CIGRE (Conseil International des Grands Réseaux Électriques) is to promote knowledge and information exchange relating to the generation, transmission and distribution of electrical energy in and between its 97 member countries. Equal importance is attached to both proven technologies and new technology developments.

Dr Pietsch has been involved with CIGRE for over 20 years, contributing to numerous international committees dealing with energy, and is a regular publisher of technical papers.

Heating upgrade

Image credit: Danieli

ArcelorMittal Hamburg has chosen a combination of the Danieli centro combustion furnace and Danieli automation to improve both productivity and efficiency of its special steel wire rod mill.

The furnace, designed for safe and reliable operation, will have a thermal profile that achieves optimum heating efficiency by using improved convective heat exchange in the unfired zone. Proprietary flameless burners will offer reduced environmental impact.

The new furnace, coupled with the fully automatic control logic of the combustion system, is expected to allow the most flexible reheating practices to match the production mix requirements for low and medium carbon, bearing, spring, and cold heading steel.

The existing mill will be connected to the new furnace during next year's shutdown period. As well as improvements to productivity and efficiency, the upgrade will allow an increase in coil weight to 2 tonnes.

Farewell to fossil fuel?

As part of a new energy and climate strategy, the Finnish government is considering a total ban on the burning of coal for energy by 2030. Finland would be the first country to impose such a move.

Coal use has been steadily declining in Finland since 2011, and in 2012 the nation invested heavily in renewable energy, leading to a near doubling of wind power capacity the following year. In February 2016 a further €80 million was invested in renewables.

All Nordic energy prices, except for coal, have been dropping steadily since 2010 and, as a result, coal power plants have been closing. At present coal provides just eight percent of the nation's energy needs.

Despite the favorable circumstances, it would still be a radical move if Finland became the first country to ban coal use for energy. Other countries, including the UK, Austria and the Netherlands, have announced plans to phase out coal, but Finland remains the only one considering a complete ban.

The plan has yet to go through parliament.

Utility funding

The European Bank for Reconstruction and Development (EBRD) and the European Investment Bank (EIB) are supporting vital developments towards a reliable electricity transmission grid in Tunisia.

Both EBRD and EIB will be providing a sovereign-guaranteed loan of up to €46.5 million each to Société Tunisienne de L'électricité et du Gaz (STEG), a state-owned utility company. The company is the backbone of the Tunisian energy sector, which is in urgent need of investment to improve the security of its supply.

The financing will be used to reinforce and strengthen the electricity transmission network and prepare the grid for additional generation capacity, including renewables.

Investment in the transmission network is expected to ease Tunisia's acute energy shortages.

This operation is the first EBRD loan in the power and energy sector in Tunisia and is in line with the EBRD's Green Economy Transition Approach (GET). Under GET the bank aims to increase its green financing to around 40 percent of total EBRD financing by 2020.

More wind power for Australia

Danish company Vestas has received an order for V112-3.45MW and V117-3.45MW turbines for Mt Emerald Wind Farm Pty Ltd, a whollyowned subsidiary of Ratch Australia Corporation (RAC).

Located near Mareeba in North Queensland, the Mt Emerald Wind Farm is an engineering, procurement and construction project for Vestas. The order also includes a 15-year active output management service contract, in which Vestas guarantees a defined level of availability and performance, as well as a SCADA VestasOnline business system for data-driven monitoring and preventive maintenance.

Installation and commissioning of the turbines is expected in the second half of 2018.

ASIA & AFRICA

NEWS

Powered by distant sun

New Energy Solar has acquired a substantial majority interest in two large-scale solar projects, totaling over 134MW, developed, designed and constructed by SunPower Corp. SunPower will retain an ownership interest in the projects and provide ongoing operation and maintenance services.

Stanford University has a long-term agreement to purchase 100 percent of the power generated from one of the projects, the Stanford Solar Generating Station. Turlock Irrigation District (TID) has a similar agreement to buy the power generated from the second project, the TID Solar Generating Station.

Both Stanford University and TID will use the renewable power generated in Kern County to serve electricity demand approximately 300 miles away. Projects like these demonstrate the flexibility with which organizations can now take advantage of cost-effective solar power by using larger capacity off-site solar resources to reliably serve a greater percentage of demand.

"Stanford University and TID are using an innovative model called off-site solar to meet their renewable energy goals and serve their constituencies with cost-competitive emission-free solar power," said Nam Nguyen, SunPower senior vice president. "Off-site solar allows for land-constrained organizations to benefit from the economies of scale achieved with larger solar installations. We congratulate New Energy Solar on their leadership in recognizing the value of this model and thank them for their partnership."

Construction of both projects commenced in the middle of 2015, and both facilities are expected to achieve commercial operation by the end of this year.

Asset acquisition will bring greater market share

Prysmian Group has won a bankruptcy auction for the assets of a high voltage cables factory in China. The factory was previously operated by Shen Huan Cable Technologies. The procedure for completing the acquisition of assets was expected to begin shortly after the auction end and will be carried out by Prysmian Technology Jiangsu Co Ltd.

Once the acquisition is completed, Prysmian Technology Jiangsu will gain 190,000m^2 of manufacturing and logistics facilities and five production lines (two VCV lines up to 500kV, a CCV line up to 220kV and two CCV lines for MV cables) with a production capacity of over 20,000 tons per year. Located in the city of Yixing, Wuxi municipality, Jiangsu province, the new facility will be capable of producing all the main designs available to the HV systems sector.

Cable consortium aims for US

Manuel V Pangilinan, chair and CEO of Philippine company PLDT, has confirmed that the company is to invest in a subsea cable facility between the Philippines and USA, via Japan. The project is expected to be completed within three years.

The cable will be developed by an international consortium, of which PLDT is a member.

Pangilinan explained that demand for high speed Internet continues to explode in the Philippines and the company needs to keep pace with changing market requirements. "It's a massive effort," Pangilinan said, referring also to plans to strengthen its fixed-line network, which he described as "the next telco battleground" in the Philippines.

While the wireless segment expects flat to slight growth over the next few years, fixed-line could grow anywhere from 8 to 12 percent, Pangilinan said. Service revenues in this segment increased by 7 percent in the first nine months of 2016.

PLDT has around 140,000km of fiber optic cables, said to be the most extensive network in the country.

Pakistan-China connection

A project to connect Pakistan with China via high speed fiber optic cable is anticipated to be completed by 2017, a full year ahead of schedule.

Phase one of the project began in 2016 under the China-Pakistan Economic Corridor Project, with work on eight sections of between 100km and 125km length having already begun. The 820km fiber optic cable will be placed from Khunjerab to Rawalpindi and, in the second phase, between Rawalpindito Gwadar and Karachi.

The cable will be laid through the hilly areas of Khunjerab to Karimabad, Naran, Masnsehra, Abbottabad, Taxila and Rawalpindi, some of the most hazardous parts of the country. Extreme weather and very low temperatures are the major obstacles for the first phase of the project.

Once finished, this back-haul fiber optic cable will provide Pakistan with direct telecommunications access to China, central Asian states and from there to Europe and to and from the United States. At present, Pakistan is connected to the world via four undersea fiber optic cables, with five more in progress.

Fiber and 5G development in Oman

Oman's ministry of transport and communications is pressing ahead with plans for fiber optic cabling and 5G services across the majority of Oman. The ministry also announced a series of grid connection projects for remote areas of the Sultanate and the possibility of a third operator entering the Omani telecoms market to help reduce prices.

A statement said that opening up military and security frequencies to the civilian market had a "positive impact on the spread of 3G and 4G services in Oman," and had, "enabled the current operators to increase coverage and enhance service quality, especially in remote areas." The ministry stated in its report that these networks would prove vital to 5G, now being tested by telecom providers.

A ministry statement assured customers that steps were being taken to "ensure to all the benefactors that there are ongoing efforts to observe the requirement of increasing coverage, services quality, services prices and customers' services with the operators."

Low-loss contract

A three-company consortium formed by J-Power Systems Corp (JPS), a wholly owned subsidiary of Sumitomo Electric Industries Ltd, Mitsubishi Corporation, and Ceylex Engineering (Pvt) Ltd of Sri Lanka, has been appointed to install overhead power lines between Habarana and Veyangoda in Sri Lanka.

The billion-yen project, planned under a Japanese ODA loan secured by the Ceylon Electricity Board, will install two 220kV circuits over 150km between the two cities. JPS is responsible for manufacturing the conductors for the project, which will be completed by October 2019.

Improved efficiency of the transmission line is needed to advance Sri Lanka's economic development, so a large capacity conductor with minimum transmission loss has been selected for the project. JPS's low-loss conductor will be used, for the first time in Sri Lanka, along the entire length of the network between Habarana in the mid-north region of the country and Veyangoda near the capital.

African growth

Seacom, a submarine cable operator with a network of submarine and terrestrial fiber optic cable serving the east and west coasts of Africa, is to grow its market share through acquisitions.

Outlining the company's strategy, Byron Clatterbuck, CEO of Seacom, said: "In today's business, you have to acquire or you will be acquired. Our biggest target is the last mile and we have the backing of our funders to make these acquisitions."

Seacom has approximately 1,000 direct and indirect customers, with about 90 percent of them based in South Africa, and a presence in Kenya, Mozambique, Uganda and Tanzania.

Suveer Ramdhani, chief development officer at Seacom, commented that Africa presents opportunities for the submarine cable operator. "Although Africa is still behind in regards to connectivity, by 2020 the continent will have 725 million smartphones and one billion broadband connections," he predicted, adding that another advantage is Africa's young population of around 300 million people aged between 15 and 24: "These will grow into the largest population on the planet in 20 years."

Connectivity slows for Kenya

Counties outside Kenya's National Optic Fiber Backbone (NOFBI) will have to wait longer for connection following ICT infrastructure budget cuts. Estimates from the national treasury indicate the stretch to be rolled out in phase two of the project has been cut from 800km to 500km, and the number of counties and sub-counties to be connected reduced from 50 to 30.

Phase one of the NOFBI project began around ten years ago, with 4,300km of core fiber across all major towns in the country. This was expected to facilitate the growing demand for connectivity by both private and public institutions in the new administrative units. The first phase was outsourced to three contractors, Huawei Technologies, ZTE and SAGEM, with only 28 counties connected. All other counties were to be covered by phase two, jointly funded by the Kenyan government and China's Exim Bank.

The government had targeted to lay down 2,100km of optic fiber by 2017 but, to date, only 1,489km have been laid. The treasury blames the delays on acquisition of way rights.

Hong Kong cable

HKT is to construct the Ultra Express Link (UEL), a super-high capacity fiber optic cable connecting Tseung Kwan O Industrial Estate (TKOIE) and Chai Wan – two sites with a high density of data centers. The 3km submarine cable will offer lower latency and an additional diversity path.

At present, TKOIE houses 11 data centers, including NTT, Pacnet I and II, HKEx, Towngas Telecom, HKCOLO, China Mobile, China Unicom, Digital Realty and Global Switch. The major data centers in Chai Wan include Sino Favour Centre and Mega-I Advantage.

The majority of the data centers at TKOIE are currently connected by two rings of fiber network systems to build redundancy, and are linked to five exchanges in Kowloon with three fiber routes.

Upon completion, the UEL will become HKT's second submarine cable. Alexander Arena, group managing director at HKT, commented that development of the new metropolitan submarine cable system will bolster Hong Kong's efforts to become a regional data center hub.

Products, Machines & Technology

Knead for improvements?

Switzerland-based Buss AG has updated its MX 105 compounding line for processing highly filled or crosslinkable HFFR cable compounds.

Having simplified the design, the system is capable of handling throughputs of up to 1,500kg per hour but with a quieter and more efficient machine.

The MX 105 is the mid-range model of the MX series, available with a processing length of 15 or 22 L/D and fitted with either two or three feed hoppers.

For processing semi-conductor compounds or carbon black masterbatches, the discharge extruder can be replaced by a melt pump.

The optimized toothing of the new, combined reduction/stroke gearbox offers greater efficiency together with lower noise.

The electric drives of the Buss kneader and discharge extruder are designed to operate at motor speeds above 70 percent of nominal speed while outputting at least 50 percent of rated torque, so ensuring they achieve efficiency of at least 90 percent.

A hinged process section now opens to 120°, to provide accessibility and a further easing of maintenance and operation.

The previous oil heating system of the discharge screw has been replaced with an electrically heated and air-cooled system, and the overall footprint of the machine has been reduced.

The knife drive has been redesigned for improved accessibility, simplified operation and improved operational reliability.

Cutting and feeding

Davis-Standard has introduced a new cutting and feeding machine to support low voltage wire and cable processes for insulating applications.

The unit facilitates timely transfers from one take-up to the other with minimal operator involvement, so expediting the take-up reel change process during insulation.

"This machine features a deflection pulley arrangement and helper caterpillar with a cutting system to streamline the insulation process and ensure quality," explained John Zachow, VP, Davis-Standard Wire and Cable Systems. "We're always looking for ways to improve the bottom line for

customers, and this unit offers significant production advantages for the short-term and long-term."

The machine's deflection pulley arrangement sits between two portal take-ups, and features pulleys for round cables with integrated clamping, feeding and cutting devices.

A pre-programmed length of cable can be pulled from the accumulator enabling the operator to secure the end of the cable to an empty reel after cutting.

Pneumatic clamping during take-up changeover is delivered via a helper caterpillar. The caterpillar pulls the cable from the accumulator, transferring it from one take-up to the other.

Design improvements include adjustable vertical and horizontal guiding rollers at the inlet and outlet sides of the machine, and adjustable upper and lower belts on pneumatic cylinders with pressure rollers.

An AC gear motor delivers power with an automatic "off" feature when the winding drives are activated.

Extra protection in hazardous areas

Cable gland manufacturer, Schlemmer Group, a specialist in cable glands for explosive areas, is expanding its product portfolio to include improved ATEX cable glands.

The ATEX Ex d/e/t series have been re-engineered to suit updated ATEX standards and adapted to customers' specific requirements. The product range has been further expanded by the brand-new ATEX 4F Deluge cable gland, designed specifically for the offshore industry.

For the redesigned and compact series ATEX Ex d/e/t, the weight of the glands has been reduced, the flame propagation increased and the bending protection improved.

The glands are manufactured from V4A stainless steel, nickel-plated brass, non-plated brass and glass fiber-reinforced polyamide.

The cable glands are available in all common thread types and sizes and meet the requirements of all worldwide standards.

In the 4F and 4F Deluge version, the cable sheath is sealed prior to shield contact, and the Ex d/e/t 4F Deluge also has an additional O-ring for complete sealing of the cable gland and protection against corrosion of the cable.

Finders buyers

Alpha Wire has launched new cordset and distribution box finders. Similar to the cable finder that went live on the Alpha website in

2015, the latest finder guides help customers to find the right Alpha Connect solution for their specific application.

Both finders are equipped with filters that provide a complete search of the product lines, supported by a custom connectivity form to apply for a quote on a custom connectivity solution.

Alpha Connect products comply with IP65, IP67, IP68/NEMA 6P and IP69K standards and are designed to provide customers with a reliable solution for industrial environments while minimizing installation costs and machinery downtime.

"Alpha Connect builds upon the quality our customers expect from Alpha Wire, providing a complete end-to-end solution for connecting sensors and actuators on the factory floor," commented Hillary Riden, product specialist at Alpha Wire.

Standard Alpha Connect products are not subject to minimum order quantity requirements.

Cordsets are available in 0.6m, 1m, 3m, 5m, 10m, 15m and 20m standard lengths, with custom designs also available.

Range expanded

AFC Cable Systems and its sister company Kaf-Tech have expanded their line of electrical metallic tubing (EMT), flexible metal (Flex) and Liquidtight fittings for the electrical distribution industry.

More than 150 new fittings items have been added in the first phase of a multi-phase fittings range extension.

The new products increase the number of applications for which fittings are available.

Many new items have been added to the Liquidtight category, including malleable Liquidtight fittings with aluminum or copper grounding lugs in insulated and uninsulated versions, tubular steel Liquidtight fittings (both uninsulated and insulated), and combo couplings to connect Liquidtight conduit to rigid conduit.

New AC/MC cable Flex products include 90° saddle-type connectors with insulated throats, and double bite saddle-type set screw couplings, suitable for connecting Flex, AC, MCI, MCI-A and HCF cables to outlets.

Also new are combo couplings to connect flexible metal conduit to rigid or IMC conduit.

Customer-led development

Technifast Ltd has expanded its fastener portfolio with a range of self-cutting thread inserts, designed to provide a high strength

thread in plastics, wood and soft metals.

The self-cutting inserts have an internal and external thread and are supplied in a choice of steel, stainless steel 303 or stainless steel 316, with a range of thread sizes.

Design of the inserts began after the firm was approached by a professional diver who needed a safe method of securing equipment, such as gas bottles and diving gear, into a rigid inflatable boat, initially considering Technifast's 300 series inserts in marine grade stainless steel.

Technifast's production team identified that a blind insert would be a better solution, preventing water ingress into the hull cavity and its fiberglass/wood layering.

"We identified a design that incorporated a deep and coarse self-tapping thread to provide sufficient grip; a minimum of 15mm usable internal thread; a shoulder at the top to enable a good watertight seal; and three interruptions in the thread to remove the host material cleanly on insertion," explained John Garner, senior engineer at Technifast.

The diver tested a prototype batch with

M10 thread, and a longer M12 version, and found both functioned perfectly. John continued: "Having a customer you can liaise with over design and function, who can then help test and develop products, is invaluable."

Flexible cable

Nexans has launched Motionline® Halex cables, a range of halogen-free automation cables that offer an alternative to expensive PUR cables.

Motionline Halex cables are designed to be flexible, robust, drag-chain-capable and flame retardant, but also lower cost compared with PVC cables. In contrast to PVC, Halex do not release any highly toxic or irritant gases in the event of a fire.

The sheath permits small bending radii (tested to two million cycles) and is resistant to abrasion, oil and cooling lubricants.

Philipp Teepe, product manager automation at Nexans, commented: "We're very proud of what we are able to offer with the Halex range.

"The cables are ideal for meeting the demand for PVC-free cables without having to compromise on functionality. It is also helping us to meet our target of reducing environmentally harmful PVC."

Nexans offers Halex cables in the form of drag-chain-capable sensor, servo, bus, industrial ethernet, energy and control cables. In common with other Motionline cables, the design of Halex products can be adapted to suit customer requirements.

The closed structure of the PMM 100 also enables significantly longer maintenance intervals, compared to a conventional blower with a mechanical seal. The PMM 100 is said to be easily integrated into any new or existing CV line.

Circulation blower

Maillefer's new gas circulation blower PMM 100 is designed for reliable cooling circulation during the processes of medium, high and extra-high voltage cable production.

The most critical and sensitive element in the circulation system is the blower and its mechanical seal.

The principle behind the PMM 100 is a permanent magnet motor without a mechanical seal.

A mechanical seal on a blower is known to be failure sensitive, due to its complex and fragile construction.

To get your editorial into the February issue of wiredInUSA please email David Bell

david@wiredinusa.com

by the 25th January 2017

EDITORIAL

Index

ADVERTISING
Index

INTRAS

Marketing:

Contact Jason Smith, wiredInUSA,
Tel: +44 (0) 1926 834684
Email: **jason@wiredinusa.com**

News:

Contact David Bell, Editor, wiredInUSA,
Tel: +44 (0) 1926 334137
Email: **david@wiredinusa.com**

PPA

wiredinUSA is a member of the
Professional Publishers Association

wiredIn USA

America's online magazine for wire and cable

wiredinUSA, EuroWire
and Wire & Cable ASIA...

The leading magazines for the wire and cable industries

Download your 2017 media packs
today and benefit from an international coverage

www.read-eurowire.com www.read-wca.com www.wiredinusa.com