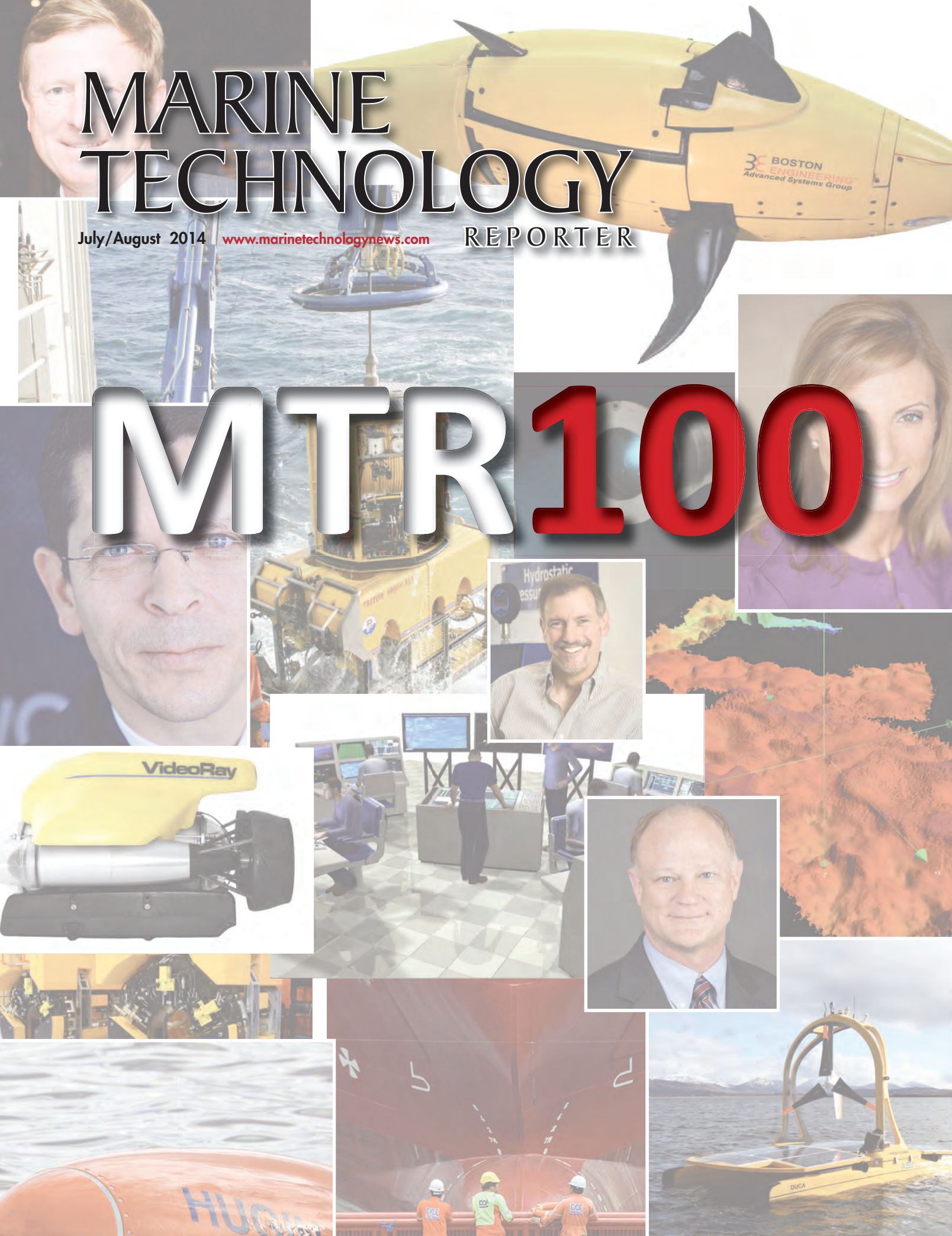


MARINE TECHNOLOGY REPORTER

July/August 2014 www.marinetechologynews.com

REPORTER

MTR 100



BIRNS, INC. - CELEBRATING 60 YEARS

1720 Fiske Place
Oxnard, CA 93033
T: 805-487-5393
E: service@birns.com
W: www.birns.com
CEO: Eric Birns



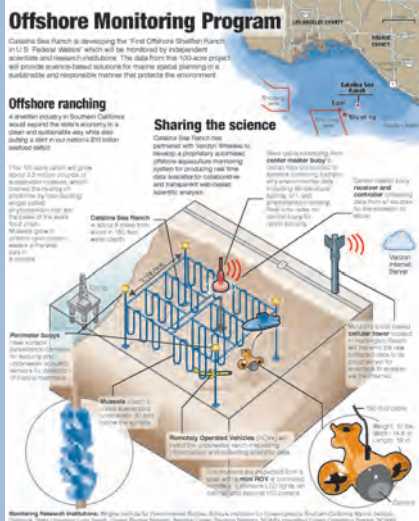
The Case: BIRNS, Inc. is an ISO 9001:2008 certified global leader in the design and manufacturing of high performance connectors, custom cable assemblies and lighting systems. 2014 marks the company's 60th anniversary of serving the industry and providing technologically advanced solutions trusted in some of the planet's most demanding environments.

BIRNS has supported the deep submergence oceanic community with products that deliver everything from faster, more robust communication to brilliance in the murky depths. The company's contributions in the marine market began in the 1950s when it was asked to develop subsea systems for the US Navy for the highly classified Polaris underwater missile ejection project and later for Sealab. Today BIRNS is relied upon to provide powerful lighting solutions, from halogen to LED, as well as unique technologies like the BIRNS Titan, an intensely bright 4,000W, 380,000 lumen hydrargyrum medium-arc iodide (HMI) lighting system created for the Costa Concordia salvage project. In 1990, BIRNS launched its Connector Division in answer to increasing customer demand. BIRNS' high performance connector lines quickly garnered major popularity, and the company went on to engineer highly successful lines like the

6km rated BIRNS Millennium range. These miniature, high-density metal shell connectors set the benchmark for elevated bandwidth delivery, and feature configurable inserts for both high (= 3.6kV) and low (= 600 V) voltage. BIRNS now leads the industry in fiber optics, with typical loss for cable assemblies of <.5 dB. The company specializes in cable assemblies integrating Electro-Opto-Mechanical (EOM) capabilities, which deliver huge amounts of power, data and signal, and provide load strengths of >50,000 lbs. Recently, BIRNS was called upon to develop a set of ABS certified fiber optic penetrators for a manned submersible. The robust penetrators were custom overmolded and featured low insertion loss of < .2dB and high return loss of >35dB. The certification for optical penetrators was new territory for ABS, so the organization worked with BIRNS to develop rules for witnessing the testing of the new design.

CATALINA SEA RANCH

820 South Seaside Avenue,
Terminal Island, CA, USA 90731
T: +1 562 544 7410
E: phil@catalinasearanch.com
W: www.catalinasearanch.com
CEO/President: Philip Cruver
No. Of Employees: 6



The Case: Catalina Sea Ranch is developing the "First Offshore Shellfish Ranch in U.S. Federal Waters" which will be monitored by independent scientists and research institutions.

Catalina Sea Ranch, LLC, headquartered at Terminal Island in the Port of Los Angeles, California, has secured the first permit for offshore aquaculture in U.S. Federal waters from the U.S. Army Corps of Engineers, which was unanimously approved by the California Coastal Commission. This 100-acre project will produce 2.5 million pounds of sustainable shellfish grown 30 ft. under the water surface six miles offshore Huntington Beach, California. This venture also supports the goals of the National Oceanic and Atmospheric Administration (NOAA), establishing a framework to allow sustainable domestic aquaculture to contribute to the U.S. seafood supply.

Catalina Sea Ranch's monitoring program, employing Verizon's wireless network and cloud services for transmitting scientific data, will commence during the summer of 2014. The following research institutions will be analyzing the data:

The Wrigley Institute for Environmental Studies, Scripps Institution for Oceanography, Southern California Marine Institute, California State University Long Beach, Ocean Studies Network, National Ocean Tracking Network, NOAA's Integrated Ocean Observing System, NOAA's National Marine Fisheries Service Shellfish Aquaculture Laboratory in Milford and NOAA's Southwest Fisheries Science Center.