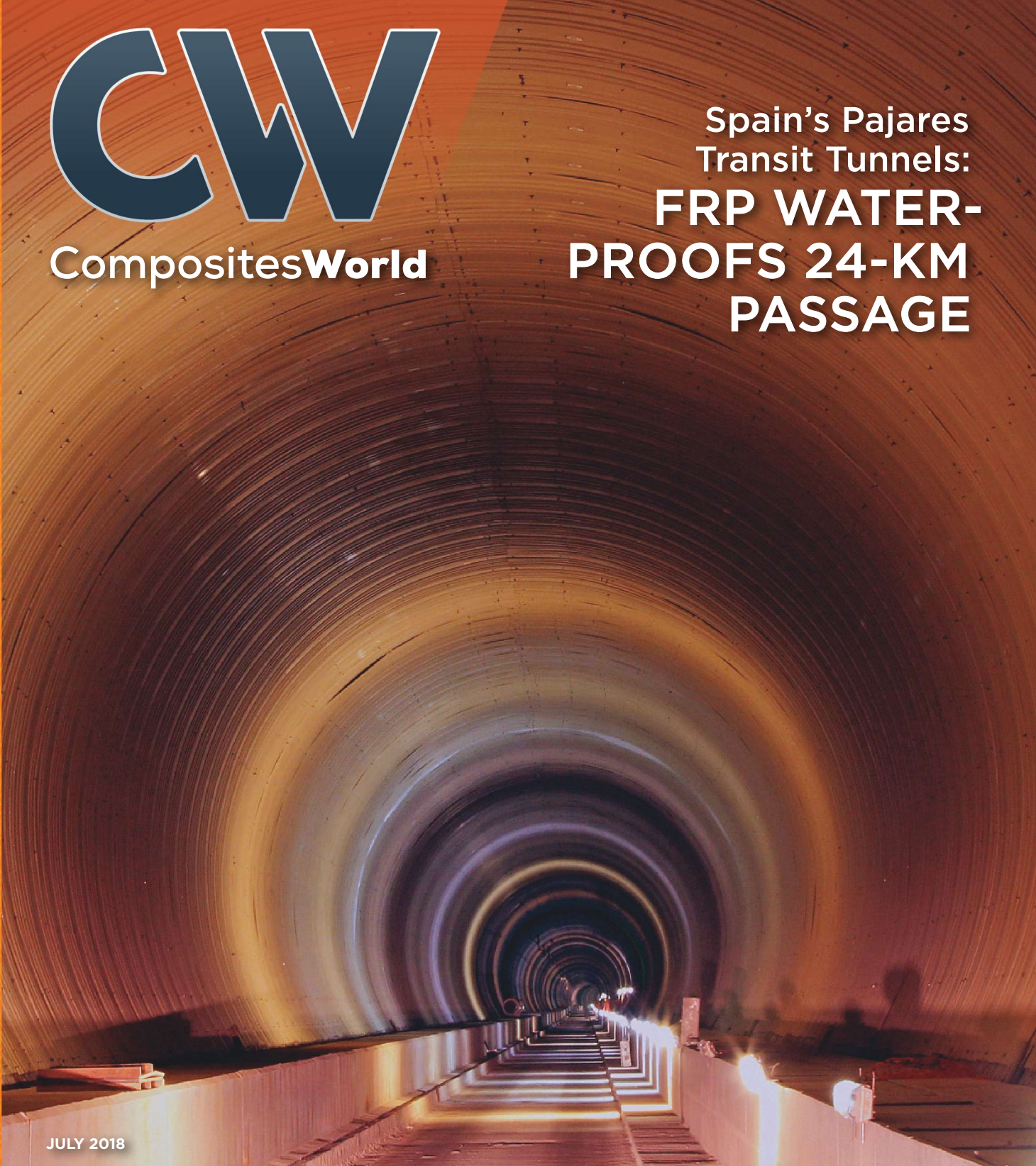




CompositesWorld

Spain's Pajares  
Transit Tunnels:  
**FRP WATER-  
PROOFS 24-KM  
PASSAGE**



JULY 2018



DOWNLOAD this issue of  
*CompositesWorld*  
in a low-res PDF format  
— [CLICK HERE](#) —

Automated, mold-free, fastener-free  
fuselages & wings? / 30

Unpiloted aircraft development  
with FRP is surging globally / 36

A 3D-printed prototype shortens  
UAV's path to production / 45

## TE Wire & Cable, Plataine join forces to develop smart thermocouples



Photo | CompositesWorld



Source | CW / Photo | Jeff Sloan

TE Wire & Cable (Saddle Brook, NJ, US), a manufacturer of thermocouple wire, and Plataine (Waltham, MA, US), a provider of Industrial IoT and AI-based optimization software for advanced manufacturing, announced at SAMPE 2018 a partnership for what the companies are calling Smart Thermocouple solutions.

Plataine president and CEO Avner Ben-Bassat (left) and Vlad Fedorchak, TE Wire & Cable's business unit manager, Aerospace Composites, were on hand at the Plataine booth to greet show visitors (see photo).

The joint solution reportedly integrates IoT, AI and thermocouple technologies to improve efficiencies and quality. TE Wire & Cable's thermocouples are connected to Plataine's IoT-based AI software via a simple hardware infrastructure based on RFID tags and engraved bar-codes. Plataine's software then monitors the thermocouples' location, status and duty-cycles to provide automated, real-time alerts and *(continued on p. 16)*

**PACIFIC COAST COMPOSITES**  
*Keeping you moving*

The right materials.

The right quantities.

The right time.

Your Authorized Connection to

**HEXCEL** Official Distributor

**3M** | Authorized Distributor and Repackager  
Automotive and Aerospace Solutions Division

1-888-535-1810  
PCComposites.com  
Sales@pccomposites.com

(continued from p. 15)

recommendations to optimize thermocouple calibration, refurbishment or replacement. A dedicated Web page enables users to plan ahead for efficient thermocouple utilization.

According to Ben-Bassat, the joint solution improves quality compliance, reduces the risk of using thermocouples that are no longer fit for purpose and eliminates the need for manual tracking processes and production delays associated with manual processing steps.

Plataine's software is described as weaving "a web of digital threads from raw-material to end-product," allowing thermocouples to be paired to molds and parts for full traceability in the event of quality issues or audits.

To learn more, visit [plataine.com](http://plataine.com)



**MARINE**

**NMMA: US boating industry sales highest in a decade**



Source | NMMA

Good news for composites manufacturers who work in and serve the North American boatbuilding industry and those who supply their machinery and materials: According to the National Marine Manufacturers Association (NMMA, Chicago, IL, US), US recreational boat sales are at a 10-year high, prompting boat manufacturers to expand to meet demand. Data released on May 22 by the NMMA show that unit sales of new powerboats increased by 5% in 2017, reaching 262,000 — the highest levels the US recreational boating industry has seen in 10 years.

Total marine expenditures were at an all-time high in 2017 at US\$39 billion (spending on new boats, engines, trailers, accessories and services), up 7% from 2016. Boat manufacturers are expanding capacity to meet this demand — building new plants and increasing production; supporting recent data from the Bureau of Economic Analysis that US manufacturing gross output increased to US\$6.228 trillion in the fourth quarter of 2017.

"As the strong economy continues to bolster new boat sales and boating expenditures, capital spending and manufacturer optimism are at record highs, creating one of the strongest periods on record for the US boating industry," says NMMA president Thom Dammrich. "The growth trajectory recreational boating is continuing to see is healthy and steady as the industry works to bring new buyers to the market across all segments, from small aluminum fishing boats to large cruising yachts."

## From Nose to Tail, Complete Aerospace Solutions

Cincinnati VIPER



Lund SLALOM



"With over 150 installations across the globe, Fives has more tape layers & fiber placement systems in operation than all other suppliers combined"



Fives Cincinnati  
2200 Litton Lane  
Hebron, KY 41048

T: +1 859 534 4600  
fivesmsi-sales@fivesgroup.com  
www.fivesgroup.com