Asset Integrity
High-tech solutions 20
EPIC
28 **Ship shape**
Polymer steel composite repairs are becoming a popular solution for worn out plates in the growing floating production vessel fleet. Elaine Maslin reports.

30 **Brownfield – without the bother**
Satnam Shoker, of Step Change Engineering, details a new automated, streamlined process helping to save time during brownfield modification work.

SUBSEA
34 **GoM operators set sights on tiebacks**
Subsea tiebacks have emerged as the economical way to develop many Gulf of Mexico fields. Karen Boman reports.

36 **Tiebacks by the numbers**
Subsea tiebacks are accounting for 75-80% of sanctioned projects. Will it last? Elaine Maslin sheds light.

PRODUCTION
38 **Keeping station**
Elaine Maslin chats with Helix Energy Solutions to see how the intervention services provider is keeping afloat with new collaborative offerings and new vessels entering the market.

40 **Making a step change**
Elaine Maslin reports on two new vessels and a semi-submersible from Helix Well Ops due out in 2017-2019, which aim to make a step change in operational efficiency.

42 **Installing ceramic sand screens**
In an industry first, achieved last year, 3M ceramic sand screens were deployed from a light well intervention vessel, Helix’s Well Enhancer.

44 **Wireline wonders**
Oceaneering International’s acquisition of Blue Ocean Technologies is set to reap returns in terms of new technology. Elaine Maslin reports.

46 **A clean cut**
Cutting and sealing has been combined into a neat package in Interventek’s Revolution valve design. Elaine Maslin reports.

DRILLING
48 **Gaining control**
Inflow control valves and inwell fiber-optics have given Nexen far greater visibility of what’s going in and out of their reservoirs on the Golden Eagle field. Elaine Maslin reports.

50 **Putting HSE in MPD**
There’s a growing acceptance of MPD in offshore operations, but are all options being considered? Jerry Lee examines the RFC-HSE variation.

REGIONAL OVERVIEW: SOUTHEAST ASIA
52 **Stepping on the gas**
While Southeast Asia has suffered during the downturn, a return to natural gas developments could drive sector activity over the next several years. Steve Hamlen sets out the details.

54 **Natuna under pressure**
Steve Hamlen profiles the East Natuna gas field offshore Indonesia.

58 **Adding up SE Asia activity**
Southeast Asia is expected to receive record levels of offshore investment, fueling the expansion of the region's upstream industry. EIC’s Angeline Elias outlines the hotspots.

ON THE COVER
View from the top. This month’s cover features the Oceaneering’s Millennium ROV during sea trials in Norway. Read more about Oceaneering’s latest intervention tools on page 44. 

Photo courtesy of Oceaneering International.