The moorings go-to man

InterMoor president Tom Fulton sounds a warning over dynamic positioning

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DYNAMIC positioning is standard for new deep-water drilling rigs — but not for Tom Fulton. DP systems can still fail and some day there could be a catastrophe, he warns.

"A DP system holding something on station isn’t magically 100% going to work, just like anything else. There could be issues at some point," says Fulton.

Fulton also points out how much DP can drive up drilling costs if the rig has to pull up the subsea blowout preventer and move several times in advance of a potential hurricane.

And carbon dioxide taxes slapped on emissions can also make a difference on operating costs.

“What happens if all gets to $200 a barrel?” Fulton asks.

"The fuel costs would be high. If they could moor that rig versus burning the fuel, I would think that would be attractive (to operators)," Fulton says.

Fulton is a true believer in conventional mooring. Aged 46, he is the president of Houston-based InterMoor — a member of the Acteon group and one of the leading mooring, foundations and subsea installation contractors worldwide.

"I’m not still exactly sure how it happened but I wound up at Texas A&M (University)," he says. He initially enrolled as a computer science major but soon switched to ocean engineering.

He graduated in 1987 amidst the longest slump in the oil industry. "There were almost no jobs available," Fulton recalls.

"My graduating class was less than 20 in that major." One job offer was for low pay and only guaranteed employment for about three months.

Fulton found work with the US Navy in Washington, supporting mooring work, deep-water cable laying, building hyperbaric facilities, and other special projects, which led ultimately to his starting work as an engineer with what became InterMoor.

Core business: Mooring is the core of the business, and where InterMoor got its start as Omega Marine Services around 1987. It was sold and resold to Aker, Coflexip and Technip, which divested the business in 2004, releasing InterMoor to stand on its own feet.

The mooring business in general is made up of niche markets, Fulton says.

"There’s mooring for drilling rigs, which has been our core business and is still the biggest part of our business," Fulton explains.

"And you have mooring for the production facilities, which is a growing part of our business. And you have moorings for a lot of associated things — you could be salvage barges, supply boats, general work platforms, tender assist drilling rigs. There’s a whole list of things."

At times InterMoor competes with the construction contracting behemoths of Michemmet, Herrema or Subsea 7, since they tend to chase integrated field development services. Occasionally, InterMoor can work as a sub-contractor to those same companies.

"We can either sell it, or we can rent it," says Fulton. "Then we install it, and maintain it. Then when some of these things come to the end of the field life we’ll recover it, so it’s really the complete cycle."

Recent high-profile shackle failures — which did not involve InterMoor — with a couple of deep-water field developments can happen in shallow water as well, Fulton points out.

"There have been quite a few failures in the North Sea in shallow waters," he says. "It’s not really the specification of the components, it’s really more the manufacturer sticking to the specifications."

There is also wear associated with fatigue. Fulton prescribes a focus on preventative maintenance, more inspection techniques for early detection and ultimately offer mooring leg replacement if necessary.

"You can lose a mooring leg on an FPSO and not even know it," Fulton says, especially in regards to turret-moored vessels. InterMoor offers detection methods and is testing a new mooring connector monitor called Inter-M Pulse.

When it comes to anchoring floating platforms, suction piles have proven popular, but driven piles still have their place, he says. Which is better? It depends on a multitude of circumstances," Fulton answers.

"The benefit of the suction anchor is that you can use more conventionally available equipment to put it in the water."

Cheaper to build: For example, a supply boat with a remotely operated vehicle for pumping. A downhill is three times the cost.

Some are more than 200 tonnes and cost nearly $1 million apiece.

Driven piles are not as big but are longer. They weigh considerably less and are cheaper to build. "Both are considered equally reliable," according to Fulton, but they do require pile-driving hammers to install. InterMoor has a sister company, Mencit, which can call on for those hammers.

"It really comes down to economics of the installation — what vessels are available, is the hammer spread available, and you do a cost analysis," he says.

Any lessons learned for Fulton? "Listen," he says. "There is a lot to be learned from your employees, your clients, or just others in your industry if you just listen."

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- Age 46
- President of InterMoor since 2006
- B.S degree in Ocean Engineering from Texas A&M University in 1987
- Married with three children ages 14, 11 and 8: "keeps me busy"
- Outside interests: "Precious little time" for it, he says, but: "I'd prefer to be able to have a sail boat and go sailing but that takes too much time."
- Maybe later in my career:"

InterMoor’s Industry Firsts with Tom Fulton:

- Water depth record for conventional mooring off Brazil, 2027 metres - 2012
- Record for deepest conventional rig mooring, 8431 feet (2580 m) water depth - 2008
- First permanent production facility polyester mooring (outside of Brazil) - 2003
- First rig polyester and suction embedded plate anchor (SEPLA) mooring system - 2001
- First test drilling rig polyester and SEPLA mooring installation - 1999
- First test drilling rig suction anchor installation - 1996
- First dual Vertical Load Anchor installation (outside of Brazil) - 1994