

## ANECDOTES AT AN FPSO CONFERENCE

During September and October 2012 there were two FPSO conferences in the Houston area, three weeks apart. That was very unusual as normally FPSO conferences are held outside the US in places like London or Singapore. I moderated at one and spoke at the other. My comments here stem from remarks made at these events.

### Volatility

Back in the 1970s I started and ran an engineering company that got known for its new designs of jackup mobile offshore drilling units, including the biggest at that time. I tried to figure out how that MODU market worked and was proud back then to have an article appear in Offshore in 1975 which showed my carefully calculated growth scenarios, essentially showing steady growth upwards. A few years later that article became a true embarrassment. MODU fleet growth never happens like that, it comes and goes in fits and starts. And so it goes with the FPSO fleet growth, it grows in surges.

Decades later I grew skeptical of market research reports and smooth tends upwards. Today I would recommend a famous Englishman that lived five centuries ago for wisdom in predicting future in FPSO fleet growth, He said that:

*There is a tide in the affairs of men,  
Which, taken at the flood, leads on to fortune;  
Omitted, all the voyage of their life  
Is bound in shallows and in miseries.*

If you think William Shakespeare's thoughts expressed through the mouth of Julius Caesar two millenia ago must be too ancient for today's business, I'd recommend some country and western music as a source for sage business counsel for the petroleum industry generally and on fleet growth gambles, MODU or FPSO. Take a listen to the words of Kenny Rogers in "The Gambler":

*You got to know when to hold 'em,  
Know when to fold 'em,  
Know when to walk away,  
Know when to run . . .*

### Project risks

After many years in the offshore drilling sector I changed my ways and in 1995 went to work for one of the three leading FPSO contractors at that time (Bluewater), but still based in Houston. In 2000 the owner of the company asked me to investigate why a string of three FPSO projects had experience successively larger over runs in budget. It should go the other way, one gets smarter

from building the first one and doing it all again and again. But no, it went the wrong way and so I had to diagnose what was going on. It was serious because on a lease contract it meant the return on capital might effectively be halved or worse. So I went to Europe, workshops ensued, talking to people in each stage of the business process and we came to find out that there was a lack of rigor in examining progress and making decisions going forward, step by step.

Nothing dramatic was found (other than the financial impacts) but project management disciplines of the stage gate kind, plus actionable ongoing project information and controls, that major oil companies apply - and which are taught in PMP school - were not there. It turned out these conclusions were not unique in the FPSO industry. At that point in history such difficulties were often worse, with some fabricators taking very bad hits in the late 1990s and early 2000s, worse than we saw as an FPSO owner and operator.

The problem never went away. In 2008 two leading FPSO contractors were reported taking \$200 million hits from project overruns. These guys did not build FPSO all the time, were stretched and ambitious to grow. Project risks were affecting financial performance dramatically.

In the last few years the drillers have managed to get their drillships built on time and on budget, a remarkable achievement considering all the interfaces and worldwide sources for the equipment built into their vessels. It used to be that MODUs were also frequently late and over budget but in their 2009 annual report Transocean spoke of their on time deliveries of multiple drillships, something that drilling contractors never said ten or twenty years earlier!

Independent Project Analysts (IPA) have tracked project performance carefully for many years and one of the worst performing sectors has been the FPSO business. What I encountered in 2000 had been common. IPA have been at OTC in the last two years talking of what they were seeing in project performance generally and particularly with FPSO construction projects.

But the drillers' learnings are not yet shown up much in the FPSO contractors' world.

## Low profitability

In 2008 at an FPSO conference by IBC in November in London Ferncliff, a Norwegian financial house commented on the horrible stock performance of the publically listed FPSO contractors, worse even than the general stock downturn that year. A sampling of 13 FPSOs showed an average return of 8.5% on book capital. Returns on capital employed (ROCE) were miserable, did not justify the exposures taken when other capital industries could offer better. The FPSO builders seemed to do better, kind of like airline terminal companies and airplane builders compared to airline companies owning and managing the assets. I always will remember that particular conference because one speaker did not show up and it was later learned his company was struggling with bankruptcy.

At the same FPSO conference a year later another Norwegian from Arctic Securities had the same kind of story of tough times in the FPSO world, despite the widely touted demand for this kind of vessel.

## Spec build FPSOs not good for financial health !

One year later at the same FPSO conference: while sitting on a panel I talked about how the companies that had invested in spec build FPSOs had all gone bankrupt or lost big time. It was not an idea good for one's financial health, the fundamentals were subtly worse than for similar plays in the MODU world: just as demand collapsed, yard prices collapsed, meaning a competitive offering to the spec build could be obtained for much less than the spec build's cost. Some of the industry press picked up on it.

Today it is a lot more obvious: spec build FPSOs are unthinkable. At least not until people have time to forget and another boom kicks off!

## 2012: 'Too much "sexy"', not enough beans on the table

And on now to 2012, when these FPSO business trends from 2000 onwards converge.

At OTC in May and again at the Emerging FPSO Forum in September 2012, IPA's presentations compare "best in class" FPSO project performance versus others in FPSO construction, so it would seem there are signs of hope, some FPSO project teams are doing better than others!

Also at the September FPSO conference in Galveston the chief commercial officer of one of the big three FPSO contractors (Thy Kint of BW Offshore) was bluntly vocal about the NPV projections heralded for FPSO projects being unrealistic, the low returns and on capital, how it cannot go on, there needs to be a consolidation.

It was all reminiscent of the drillers a few years back. The hyped interest in FPSOs as a booming growth sector was causing 'too much "sexy"' he argued, while the industry needed more "beans on the table" (my words).

I felt it was right on target when few are willing to speak out like that.

The trends of project risks plus more new entrants plus lousy financial results and increasingly complex FPSO projects were combining. A result some of us see is the reluctance of the experienced contractors to bid on new FPSO requirements unless there is indeed some profit potential that they are well placed to secure. Perhaps there are signals of a healthy resistance to the erosion of margins!

## Changes ahead ?

It has been interesting to see how operators do recognize the risks in FPSO projects and want to do something about it to try to mitigate their field development NPV projections via more FEED contracts than before, even competitive FEED and design contracts. When employed in the major projects office of an operating oil company (Devon Energy), we very well recognized how these over runs in time hurt our NPV figures on field developments, and recognized how the suffering contractors had to make a buck too!

Whether the consolidation that happened with the drillers will happen with the many FPSO contractors remains to be seen but the status quo does not look healthy for long term advance for everyone in that game.

## Macondo some day, somewhere ?

We all hope there won't be a *Macondo* ahead for the FPSO business. There are some scary facts looking forward. With something like 170 FPSOs out there producing oil today and a record number under construction and yet to leave the yards, there is a fleet that every day has to offload production to a tanker to deliver to a refinery somewhere. Offloading operations offshore are sometimes difficult and hazardous in sea conditions that get rough.

While working for American Shuttle Tankers (later absorbed into Teekay), I learned how spills do happen, even with the most hard won safety cultures and worldwide industry diligence (OCIMF et al) maintaining and improving safety. Spill incidences in that shuttle tanker context were made to go down with the right safety culture and investigation of what all really does affect crew performance. Hotel like quiet relaxing crew quarters have a reason - there's a correlation between crew fatigue and accidents and spills.

In the last year there has been publicity of leaks at subsea wells in the North Sea and in Brazil, all where very responsible operators were in place. Suppose one takes the number of offloading operations at FPSOs and adds in the wells below these FPSOs (5, 10, 20, 40 subsea wells at each FPSO, whatever it is). That becomes a large number of potential spill points, each with a probability attached - a minuscule number for each, we hope, but cumulatively not so minuscule.

Air travel is now very safe despite the potential nightmares of an A380 or 747 being lost. There are millions of barrels of oil on the water every day, being safely moved, year after year. So mankind can manage serious risks!

The FPSO spill risk represents a challenge to our industry, perhaps of a magnitude not widely recognized. All too easy for scare mongers to build up, but something needing attention.

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Add in the very low probability but high impact events- the *Macondo* like nightmare - and it is serious. The question is whether the owners and users of FPSOs can keep risks in check like airlines and responsible tankers owner to prevent the nightmare.

Houston, 5 November 2012



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*Anecdotes at an FPSO Conference 5Nov12*