

TELECOM/OFFSHORE OIL AND GAS. CONVERGENCE, COOPERATION OR COMPETITION?

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Abstract: In the 1980s the submarine telecommunications supply industry failed to enter the offshore oilfield market. In the 1990s the oil industry failed to enter the telecommunications market.

In the 2000s, is the time now right for the telecommunications industry to converge with the oilfield industry?

Will this convergence succeed whereas previous attempts failed? If so, why?

Will there be a resource drain from the telecom industry into the offshore industry? If so, what?

The issues specifically associated with installation will be discussed in this paper.

1 INTRODUCTION

This paper looks at the past, current and future trends of two marine installation industries that have operated separately in a common location, and discusses whether the time has arrived when the communications interests of both industries will converge, leading them to work closely together or compete for common resources.

The recession of the past several years in the submarine telecommunications industry resulted in depressed prices and, although a cautious recovery is evident, prices remain lower than during boom times and customers resist price increase. This is in contrast to the offshore market which is now experiencing a boom, leading to companies procuring ships, chasing personnel and seeing rapidly increasing prices.

In this paper we review occasions from the 1980s to today when each industry attempted, unsuccessfully, to operate in the "other's" environment; analyse the reasons why these attempts failed and explain how practices have converged so that cable ships and personnel now work more successfully within the offshore industry; investigate if the attractive prices in the offshore sector will attract cable-ships and resources away from the telecom sector and leave the latter short; ask if the two industries will cooperate or compete for resource; discuss if there will be a compromise where both markets can be satisfied.

2 MARITIME BACKGROUND

There are a number of marine supply or shipping industries that operate in the marine environment and which have common attributes, and at the same time, different aspirations. These industries include:-

- naval shipping
- merchant shipping
- fishing
- aggregate extraction

- scientific exploration
- power
- oil and gas
- telecommunications

The above marine industries have clear and distinct objectives and can be divided into sub groups. The first five categories operate in specific vessels and with styles of management unique to their requirements.

The last three however, namely power, oil and gas, and telecommunications are similar in that the objective is to transport a particular product from one place to another via individual, seabed installed cables or pipelines.

There are obvious and instant commonalities in the supply of this service, but, only after three decades of trial and error have these industries taken the first successful steps towards combining resources and working together.

The paragraphs below will take a more detailed look at the events of these three decades and analyse the differences that complicated the merger of two seemingly synergetic industries.

3 THREE DECADES

3.1 The 1980s Decade

3.1.1 Background

As far as the telecommunications industry was concerned, the decade of the 1980s opened quietly, very much in the same way as the previous ten decades, but it closed with an unstoppable process of change that was to spread worldwide.

The change centred on two major events; one was the transformation of many telecommunications companies from a public or state-owned telephone utility into the competitive world of private enterprise, and the other

was the technological leap from analogue and coaxial cables to digital and fibre optics.

It was a decade of both uncertainty and opportunity in the telecommunications industry - a time which saw initiatives to find new sources of income as well as a drive to develop new technologies.

The offshore industry during the 1980s was experiencing a boom on all fronts as the fast pace of offshore exploration was uncovering new oil and gas fields all over the world, construction and development of new offshore fields was proceeding apace and oil production struggled to keep up with increasing demand. Marine companies supplying the offshore industry were flourishing, investment was high and the returns rewarding.

The suppliers in the telecommunications industry, eager to prove they had made the transition from the past and seemingly traditional telecommunications industry, invested time and resources to enter the new world of the offshore industry. It seemed as though new opportunities were abundant, and reputations enhanced, in the more robust and cash-rich offshore market. New partnerships were forged, ships were chartered and state-of-the-art equipment built to satisfy the desire to find a young, growing market – the emerging offshore oil and gas market.

The telecommunications marine supply companies invested heavily in time and money and embarked on ambitious projects in the offshore market. Targets and expectations were set high.

Reality, however, delivered a hard lesson and it proved much more difficult than at first envisaged for these companies to work successfully and profitably in the new market. The return on investment did not materialise, a great deal of money was lost and by the end of the 1980s the new-entry telecommunication companies exited the offshore market and returned to the roots of the industry they had known for over a century.

Companies which had invested in these costly new ventures decided to return to a period of consolidation and stability, and to return to a telecommunications market that, due to the advent of fibre optics, was beginning to experience the start of its own boom.

3.1.2 Reasons behind the failure

The telecommunications industry's attempted entry into the offshore market in the 1980s was a failure primarily for the reasons outlined below:-

Management Differences. The telecommunications industry was born over 150 years ago with the installation of the first telegraph cables and was developed steadily through national and governmental routes. Telegraph, and subsequently, telephone and telecommunication cables were financed by

governments who imposed their own set of operating procedures and who normally owned, or managed, the cable-ships that installed and maintained them. Cooperation and close integration between different countries, their suppliers and ship owners, and not competition, was the standard for well over a century which continued until the start of the privatisation drive in the 1980s. The oil industry, although government owned in many countries, differed substantially from the telecommunications industry in two fundamental areas:- firstly, from the outset, ship supply and installation was independent and competitive, and secondly, it started work in the latter part of the twentieth century when different operating procedures were established. The result of this different background was in a different approach to operating procedures and a different management culture.

Ships and Equipment Development. The cable-ships and equipment employed to install and maintain telecommunication cables had been developed over many years. The installation of traditional telecommunications cables involves laying a cable along a single route between two distinct, separate locations, often many thousands of kilometres apart, and cable-ships, ploughs and procedures had been adopted to satisfy this requirement. Oil and gas fields, however, are congested areas where subsea wells, manifolds, pipelines, umbilicals are considered in addition to power and communication cables. The areas close to the platforms and platform approaches within 500 metres are particularly congested where routes have to be followed to a high degree of accuracy. Positioning specifications for all vessels operating inside offshore fields were high and typically required all vessels to be dynamic positioning vessels with a high degree of accuracy. The cable-ships of the 1980s did not have this position-keeping ability and failed to operate successfully in the oil fields.

Health and safety. The telecommunications industry held a good safety record; however, the risks associated with installing cables and working in the oil and gas environment were, and remain greater than those associated with installing cables in the traditional telecommunications environment. Operations in close proximity to oil platforms and seabed oil installations such as pipelines, wellheads and manifolds carried the risk of damage to oil or gas filled installations with associated increased personal safety and environmental hazards. The offshore industry had recognised these safety and environmental hazards and had introduced codes of practice and procedures that were unfamiliar challenges to the telecommunications industry.. This placed another burden on their entry into the market

Quality Assurance and Project Management. The hazards outlined above also led to the offshore industry adopting a regime of quality assurance and project management that was also unfamiliar to the new-entry

telecommunication suppliers. A huge effort was undertaken and a great deal of attention was paid to quality assurance and project management in order to reduce, not just the accidents themselves, but also the potential for accidents. This involved and required a much larger time and personnel commitment than was customary in the telecommunications industry of the 1980s.

3.2 The 1990s Decade

3.2.1 Background

By the start of the 1990s, with the lessons learned during the 1980s still at the forefront, the two industries followed separate paths. Fibre optic technology had become well developed, new telecommunication cables were being installed all around the globe and the industry was experiencing a full workload. Similarly, the offshore market started the decade off in an optimistic mood.

The middle of the decade, however, found that the boom in the offshore market had tapered off and a number of offshore companies began looking for alternative revenue streams, and looked at entering the telecommunications market and installing telecommunication cables.

Offshore marine companies set up subsidiaries or joint venture agreements for what was thought to be a simple process, but, as had happened in the 1980s, the transition from one industry to the other did not turn out to be successful. The venture was not the financial failure that had happened to the telecommunication companies in the 1980s because there had been no great investment in ships or equipment. Rather, it was more of a change in sales and marketing emphasis. However, it was not the road to a new revenue stream either and so a few of the joint venture offshore supply companies that were set up failed.

3.2.2 Reasons behind the failure

The offshore industry's attempted entry into the telecommunications market in the 1990s was not successful for the main reasons outlined below:-

The offshore vessels, ploughs and ROVs that entered the market were highly sophisticated, well operated vessels and equipment, however, they came with a higher technical specification than was required in the telecommunications industry. This higher technical specification included a higher cost base and a higher price expectation than the telecommunications industry was prepared to accept. Telecommunication cable-ship design had made substantial improvements through the latter half of the 1980s which continued through the 1990s, and, although, perhaps, not as sophisticated as the equivalent offshore installation vessel, the cable-ship design proved to be the perfect balance between technical sophistication and cost.

The telecommunications industry had undergone a significant cultural and management change during the privatisation years and was still undergoing change; however, it retained its roots and management style. The differing styles, procedures and processes that existed between the two industries presented barriers that continued to prevent a smooth acceptance or transition for the two industries.

The telecommunications industry had made significant improvements in its health and safety, quality assurance and project management processes of the 1980s which proved perfectly adequate for its requirements. However, these were still not as comprehensive as those processes which were standard in the offshore market. The telecommunication industry, when presented with the voluminous documentation, processes and procedures of the new-entry offshore company, found it a restrictive and complicated obstacle that was unnecessary in the context of the installation of a standard telecommunications system.

3.3 The 2000s Decade

3.3.1 Background

The new millennium started with dire warnings that the millennium computer bug would cause chaos and economic damage throughout the world. This prognosis proved totally groundless and erroneous, however, two other unrelated catastrophic events combined to shape the future of the telecommunications and offshore industries through the 2000s.

The first was the overly optimistic expectations of the dotcom boom which fuelled a massive investment in the telecommunications industry in the early years of the 21st century, an investment which proved to be unfounded when, in 2002, the market suddenly imploded leaving plans, and some companies, in ruins.

The second event was the terrorist attack on the World Trade Centre in New York in September 2001, the onset of the sustained terror attacks and the associated threat to world oil supplies.

The telecommunications boom of the latter few years of the 1990s and the first few years of the 2000s resulted in a massive investment in new, state-of-the-art cable-ships, ploughs and ROVs. This rapid increase in fleet size and tonnage peaked at the moment the market dramatically and suddenly collapsed, leaving the telecommunications industry awash with resources it could not use. Initially, cost-cutting strategies were adopted which included the scrapping of many ships and substantial loss of employment. The next phase was the revival strategy where a new, slimmed down, lower cost, and arguably more efficient telecommunications industry emerged from the recession looking for new revenue streams.

New revenue streams for the telecommunications industry were not difficult to identify as the price of oil was in a steep upward curve and priority was focussed on exploring and developing new fields. Oil companies were investing heavily in new ships and equipment to such an extent that orders for over 200 new build ships were made during the years 2005/2006 (reference #6). The offshore industry, in an unparalleled expansive mode, was in the market for all types of resources and service. The telecommunications industry recognised this and the two industries started yet another era of convergence.

3.3.2 Current Situation

The decade of 2000 is only just half over and the entry of the telecommunications industry into the offshore industry is only a few years old, but there are early indications that this time the convergence is working satisfactorily.

All the major telecommunications marine suppliers now have resources working successfully within the offshore industry and are deriving good revenues. The forecast is that this trend will continue as the strategy of survival and revival was one of cost efficiency, diversity and protection against a dependence on a single market or product line.

The high level of demand in the offshore market is established and is forecast to continue, (references #4 and #5) but, also there is now a recent resurgence in the telecommunications market (references #1 and #2) which is also placing great demands on its supply industry. As opposed to the 1980s and the 1990s when there was an economic boom in only one or the other of the markets, the latter part of the 2000s looks as if there will be a boom in both industries, placing greater demands than seen previously.

4 THE QUESTIONS TO BE ANSWERED

- Is the resurgence in both the offshore and telecommunication markets sustainable?
- Is there enough resource to satisfy the demand of two industries experiencing rapid growth?
- Will the entry of the telecommunication suppliers into the offshore market succeed this time?
- Will the industries cooperate or compete for resources?

5 CONCLUSIONS

The paper has posed a few questions, but it is hoped it has also answered them.

6.1 Is the resurgence sustainable?

This is a question better suited for industry analysts and for other papers, but the indications seem to be that the exploration and development of offshore oil and gas

will continue through the decade, although the longevity of the telecommunications resurgence is open to debate. It is evident, however, that the telecommunications industry is adopting a more cautious approach to this apparent boom than it did just six short years previously.

6.2 Are there enough resources?

Indications are that there is a shortage of ships and other assets to satisfy both the telecommunication and offshore industries and this is borne out by the current lack of tonnage available for all stages of ongoing projects, from survey operations to beach and main lay installations. In addition there is a lack of experienced personnel across the board further compounding the resource shortage.

6.3 Will the telecommunication entry into the offshore market succeed this time?

Lessons have been learned from the 1980s and 1990s and the entry of the telecommunications industry into the offshore industry has, this time, been undertaken on a more cautious and controlled basis. This has resulted in a better understanding and appreciation of the risks and opportunities from both sides, enabling the entry to take place on a firmer foundation.

The cultural and management styles have equalised during the 2000s with all the telecommunication industry now accredited to international ISO standards on Quality and Environment as well as conforming to the requirements of the Health and Safety Authorities around the world. The culture shock has now been removed.

The telecommunication recession of the early decade saw the old tonnage taken out of service and scrapped, leaving a fleet of modern cable-ships, managed and operated to the highest standards. Positioning capabilities for the majority of cable-ships are much improved and typically all vessels are dynamic positioning vessels with DP2 classification. The transition from installing trans-oceanic cables to operating within oilfields will be much easier in 2006 than in 1986.

The recession of 2002-2006 resulted in a leaner more efficient telecommunications supply industry better suited to the challenges and opportunities of the 21st century and of the offshore industry.

4.4 Will the industries cooperate or compete for resources?

In the short term, say over the next three years, there is a forecasted steep increase in demand for both telecommunications and offshore construction that will require more resources than are currently available. It is evident that the offshore industry is competing for resources in the number of long term charters of cable-ships into the offshore market. The increasing number

of new build construction vessels entering the offshore industry will also place a heavy demand for experienced personnel and competition for this resource is already being experienced in certain areas.

At this stage it seems that the direction of resource is one way only, which is away from the telecommunications industry into the offshore industry and not vice versa.

In the longer term, it remains to be seen if the telecommunications industry will maintain its upward trend, but it seems likely that resources that migrate to the offshore industry are unlikely to return.

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