National Oilwell Varco, Inc.

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NOV Rig Systems & Aftermarket

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Joe joined NOV in 2002 and has served as Group Vice President of Global Operations, Vice President of the Eastern Hemisphere, Director of Service and Repair and Senior Vice President of the Offshore Drilling Equipment group within NOV Rig Systems. Prior to joining NOV, he worked for two drilling contractors in various positions, both domestically and internationally. His internationally-based positions cover twenty years of experience with multiple locations in Asia and Europe.

I'm just glad I didn't have the honor of following Lydia in that video yesterday. I was actually sitting in the back and it was the first time I had seen it and I started feeling uncomfortable. I'm glad I didn't have to follow that. When you talked about my first day in the oilfield starting as a drilling contractor, Lydia, my first day wasn't quite the way yours worked out; but I'm glad that your's worked out really well. Let's move on to nicer pictures here. Picture of a drillship, $250 million for us and you guys are well aware of that-- boys and toys, we like our big ships. Who are we? Well, we're a company that designs, manufactures, and supports drilling rigs around the world from land rigs to jack-ups to deepwater rigs.

Leadership-- what makes us unique in our leadership? You heard a lot of this yesterday and I'll give you a little bit more insight into it. It's about the people. Fundamentally everybody talks about their people, but with us, it truly is the people, and I think you saw that yesterday. We have industry-leading experts within our organization. When we sit down in a meeting with our clients and their clients, we have the expertise to carry the day. Technology-- it's about a pipeline of technology. Hege talks about her team and what she's doing and all the engineers that we have in our group. It's having that continuous pipeline of new technology going through, and I'll talk specifically about that later in the presentation.

Global-- it's the global reach. We are everywhere that there's oil found and developed, and when there's a new field, we'll be there too. Vertical integration-- you'll see that as I go through this presentation from R&D all the way through the installation and commissioning. We provide and support our products and services. Execution-- execution is about delivering what you said you were going to do when you said you were going to do it. When we talked about our projects in I&C, we have led the field in that. Sense of urgency-- it's about our culture sense of urgency. Some of you probably heard in the past reference to a system that we call Tracker. Tracker is a ticket that's raised electronically and is circulated when one of our customers has a problem on one of his rigs.

So that rig's got a problem. This ticket goes out immediately. It goes to the senior management, which includes Clay Williams, our CEO, and his staff, the engineering staff, the plants and the people who can help address that issue. We are engaged at the very moment we are notified by our clients. We know many times about a rig having a problem before the senior management of that rig knowing about it. We are engaged with a sense of urgency to get that asset back up and running. Clay talked about three organizations, and he said that summary was April 1. I still don't know why you picked April 1, but April 1 he came out and reorganized the business. In reorganizing the business within rig, it was rig systems and aftermarket.

We have two segments that we're talking about today, and within those two segments, there are three business units. We'll first talk about the rig systems. It's the equipment side of the business. It's got the land business unit, and it's got offshore. It's about $8.5 billion of revenue last year. We then took and gave you guys and the industry visibility to our aftermarket business. It's one of the fastest growing segments we have. It's about $2.7 billion last year and it's an individual reporting segment, and you'll see that as we go through. You've seen this slide. It lays out how we've become a leader and Rig Systems is a reflection of this. We initially came together and said, "Hey, we want to be the leader in providing drilling equipment."

We went out and identified key acquisitions, key companies. Tom, and his team, are the best in the business at this. If you didn't get that

yesterday, you probably weren't listening. He and his team are the best in the business at acquiring businesses. So we went out and bought those businesses. Grew those businesses. Pulled them together into a package offering. That package offering then allowed us to sell a package and give the entire service to the drilling industry. We then needed to expand, so we expanded. In manufacturing for rig, we spent $960 million since 2006 expanding our manufacturing capability. You then move on to supporting the rig and it's the aftermarket, being where the rigs are.

We spent another $160 million in CapEx to be where we need to be. Tom used some of my slides yesterday so some of this will look familiar. I think it's important to understand our roots, and Clay talked about it as well. Oilwell, 1862, 152 years ago. We've been in this business since day one and this is what we do, nothing else. This is our business. We had National and then Varco came in 1908, all three leaders in their own right. We then focused on companies that could provide us assets that would enhance our capabilities. We have Ross Hill for control. We have Dreco out of Canada, which provided us structures and drilling equipment. Continental Emsco, further enhancing our drilling equipment package. Hitec in Norway. Control systems. We got Hege too. Hydralift in Norway as well for our pipe handling systems.

That's how we've been able to build this package offering as the leading provider of drilling equipment in the world. Clay gave you some numbers yesterday. They were a little higher level. I will give you a little more granularity. It's probably not as far as you'd like it to go, but this is as far as I've been told I can go. Craig, there's legal counsel right there. What are we looking at? Well, key assumptions and I will go into greater detail. This is like an executive summary in the beginning to tell you the spirit of what we're talking about here. We continue to build out the high-spec land rigs and I will go behind that. David gave you some really good insights to what's going to underpin that going forward.

We had the resumptions of floaters and jack-ups. The market is getting soft and you guys have been writing about it, there has been some pretty good pieces on it. We're seeing it and that will have an impact. We will then see it start to improve and when it improves, you're going to see the new technology that we're bringing to the marketplace and our execution is going to drive our margins back to levels that we've been at before. You're looking at 30% revenue growth over the five-year period, 70% on OP, and 500 basis points which is a fancy way of saying 5% on margin improvement. Now that margin improvement is to 25%. In 2011, we were 27%. It's a big step, but it's not to where we've been before.

Let's take a look at the rig aftermarket side. This is the part that we're giving you guys more clarity on, big growth engine. Our growing installed base and we're going to spend some time talking about that installed base because it really is important to understand who we are, and how wide our footprint is. Then we've got the SPS business. There are a lot of questions in and around SPS. I'm going to give you more clarity as to how we see SPS as a company and how it's going to drive this segment of our business going forward. It's 115% on revenue, 130% on OP growth, and 200 basis points or 2% on margin improvement over that five-year period. I'm going to spend some time on this. It's about our installed base.

It's not just bragging. It's really trying to understand what drives our aftermarket business. Mud pumps; we got 6,000 mud pumps in service. We got close to 3,000 top drives, 550 AC drawworks. AC drawworks, if you look at land rigs, about 40% of the North American fleet is standardized or is AC drawworks. Now on a go-forward basis, nobody is building DC or mechanical rigs any further-- they're all building AC. If you consider that, we still have considerable headroom to grow this technology within the land rig space. Iron Roughnecks, 2,500; control systems, 750; we have Column Rackers at 500; and over 6,000 individual BOPs.

Now depending on how they are configured, you could have one stack that could be 2 BOPs together or you could have one stack that could be as many as 8 BOPs together. But fundamentally, each one of them is an individual component that needs support, repair and recertification. Risers, 620,000 feet of risers. It sounds like a lot, and it is. It's 130 miles. I tried to put that in a context that some of you guys might be familiar with. Well, it's the same distance, or close to the same distance, from New York City to Atlantic City. Then we go into drilling cranes. 670 drilling cranes, a very large footprint and growing. I think it's also important to understand where the market is on rig numbers.

Now the thing about rig numbers is, and you guys probably know better than anybody else, you can look at several different sources and get several different numbers. What we have here is 447 jack-ups generally in operation, 281 floaters generally in operation. I saw a report yesterday that was 280, so pretty close. Then 3,267 land rigs. That's taking it out of the Baker Hughes information , excluding China and Russia. China and Russia is just a hard one to figure out. We know that there's maybe a thousand here and a thousand there. We just don't have the clarity, but we do sell product into both of those marketplaces. Global family-- we talked about the global family, and I love this picture. This is an I&C crew in Korea commissioning a drillship.

There are six nationalities here working together to execute a $600 million project. They are commissioning products that we make in 18 factories in 10 countries. It is truly a global enterprise. Continuing with the rest of the family, we have 20,000 people within Rig Systems, 30

nationalities in about 130 locations, but those locations are growing every day. Our mantra, what we're committed to, Clay talked about it; it's about safety, it's about our people. We have a 24/7 safety culture that we drive into our people. You then get into not walking past a problem. If you talk to anybody within our operations, they know that. That's what we believe in, doing the right thing. By doing those things, we're able to execute at a very high level.

Purposeful innovation. Now this is a picture of our PCG R&D facility and I think some of you've actually been there. In fact, I'll get a little audience participation here. Who all has actually seen the PCG pressure test facility on a tour? Okay, we've got a few, but not enough of you guys. We're really proud of this facility and any time that you're in town, let us know and we would love to show you this facility. It is the largest in the industry to doing pressure testing and R&D research on pressure control. There are 13 test bays in this facility. If you look at the rest of our organization, start to look at the other things that we leverage in innovation. Well, Hege talked about the 6,000 engineers. We've got 3,200 of them, and they're scattered around the world.

University relationships. It's not just a comment. We have significant, continuous, day-to-day relationships with multiple universities around the world. Then the test rig, Hege is really excited about that test rig-- so are we. That test rig will allow us to take new technologies that are coming through our pipeline and be able to test them in real time conditions before they ever go out into the field to make sure that we have a successful product launch.

Okay, now let's talk about innovation in manufacturing. We're a pioneer in cellular and lean manufacturing. We have a long relationship with the University of Wisconsin, who is our pioneer in this, we have several grads, including a Ph.D. or two from there, that are embedded in our facilities. What you see in this video playing is our Orange facility, Orange California Top Drive facility. If anybody every finds their way up to California for any reason, we really like to show you this too. This facility executes at roughly a top-drive a day. In fact, when I stand out there, I think of old World War II pictures, where you see the massive industrial complexes kicking out equipment. That's what this place is all about.

Another place that we've had on tours, and hopefully some of you've seen it, has been our pressure control manufacturing facility here in Houston. What you're seeing there is a time-lapsed video, which equates to roughly 10 weeks of building a stack. We have seven stack pads in this facility, which again is a leading position, you're going to hear this a lot. You've already heard it a lot, you're going to hear a lot again. We're on track this year to deliver 30 stacks. That is more than anybody in the industry.

Let's take a look at innovation, when it comes to a process. It's not just about manufacturing, it's also about doing things better. One of the things that we looked at early on with some of the key shipyards, especially in Korea, in 2006, is how could we make the construction process better. On the left hand side, here you see a double derrick that's getting ready to be lifted. We built this double derrick offline, so that we did not disrupt shipyard activities. We did, not the shipyard. We did. We built the structure, we populated the structure with all our equipment and then we got into a single lift. This is 2,400 tons. It is a huge lift. Take that lift and you set it on the drilling rig. By doing that we were able to trim 45 days off the execution, that saved the shipyards $10 million. You then go over and take a look at the other one, which is more of a caricature, and it's our second phase. What's the second phase going to be? Well I am not going to tell you all of the secrets, because I know some of my competitors are going to hear this, but we're going to essentially up the game with regards to installing equipment and testing it prior to installation, which will shave another 45 days off the commissioning period of a drillship. Again, $10 million.

Service above all; the 4,000 rigs that are kicking around the world, most of those rigs have at least one piece of our equipment on it, and many of them have a full suite of equipment on it. Our ability to react with a sense of urgency is critical. If you take a drillship that's $500,000 a day and then you put on the rest of the associated costs, there is an exposure there close to $1 million a day, every minute counts. We have to be in a position that we support that operation instantaneously.

This is one of my favorite pictures. If you're afraid of heights, this is not the job for you. These guys are at 312 feet in the air. All those coveralls are red. They are red, because they're NOV coveralls, or our employees. We've hired them, trained them to work in this environment. We're not counting on a third-party. We're setting a double derrick in a shipyard, and within the overall shipyard activities, we have 950 employees working in 23 yards on 54 projects. I'll just say that's a leading position.

Now, let's go back a little bit. It hasn't always been rosy, building offshore rigs and those of you in the room that don't have hair like me, a little bit gray and have been following this business, you'll understand what I'm talking about. It's pretty messy. The way it worked, and I'll try to take you through this, and it is messy. But, generally the drilling contractor decided to build a rig, but generally he wanted to have an oil company contract in his hip pocket. So with that he would then go out to the marketplace to multiple vendors to acquire multiple types of equipment. So his engineering teams were figuring out who they wanted to buy. The oil company was putting in their $0.02, saying we wanted to have this and on top of that you'd have people say, oh I want serial number one, that'll be good, so you start having all that, and

then you have a relationship with the shipyard, where the shipyard is just the vendor. Now, there are no contracts in place for handoffs, there's no integration. All this comes together into one great big mess, which led to these vessels being late and over-budget. In fact, they were all that way until recently.

So what changed? Well, not such a busy slide. In about 2005, 2006, some leading drilling contractors and some new entries to the marketplace that were a little bit more proactive got together with some shipyards and with us and said, we can't continue to do this. We've got to do it different. They came up with the shipyard becoming the master contractor, then contracting with a drilling products provider, and staying away from serial number one. We're also going to look at standard product, so that we can leverage that. We're going to look at multiple units, so we leverage that as well.

In many cases, the oil company came late to the party. They either contracted with the rig after the rig was under construction or after delivery, and that has improved and allowed us to consistently deliver on time and on budget. You guys are seeing this picture, I love this picture. There is $1 billion of NOV equipment in this picture. If anybody wants a copy of this picture, although all my colleagues used it in their presentation, if anybody wants a copy of this, I will send it to you, because this is impressive. This never could have been done before. If we hadn't changed the model, we could not have executed at this level. We've delivered 226 offshore rigs until 2005, and 2015 is going to be our busiest year. I've also got another copy of this picture that's in green rigs too.

Okay, let's go back to NOV Rig Systems. Just to remind you what is NOV Rig Systems? NOV Rig Systems is our business that's a capital business. It's selling capital for land and for offshore. Let's talk about where we see the market. Well, tier one rigs, which David talked about, we've done 535 of those rigs over the past 10 years. Going forward, what's going to drive that marketplace? We talked about AC technology; that is just becoming the standard. It took a while to get there, but it is now the standard. Unconventional wells, as David outlined to you, is a big growing part of the demand going forward. Those will need to have walking rigs, they will need to have pad drilling, they are going to look at pad drilling as a way to be more efficient and to minimize their impact on the environment. They're also going to be needing to increase rig capacity. These wells are getting deeper and longer; deeper-longer, more horsepower and more strength. Even rigs that are in the marketplace today will need to either be upgraded or replaced as the well profiles get bigger.

Automation-- Hege talked about it, and it's a big part of our technology going forward. It's been part of our DNA since day one, and we will continually utilize more automation to make the rigs more efficient. International growth-- North America has been big, especially on the land side, but we're now seeing a lot of interest in South America, Russia, China, Australia, and the Middle East. You're going to see those marketplaces start to drive more and more demand. Let's take a look at additions. Just to screw you guys up on dates, we've been talking 10 years now, we're going to talk about five. So on a five-year basis, based on our view of the marketplace and historically. Historically, there were 1,574 over a five-year period. Going forward, we are looking at 1,646. Again, this is underpinned by ExxonMobil. It's underpinned by our view of the number of wells that equal the number of rigs. It's roughly a 9% growth.

Okay, how many people were at OTC this year? Okay. How many people came out and had shrimp and free beer at our place? Okay. You guys that come to OTC, if you missed our free beer and shrimp, you shouldn't have come. On top of that, we have loads of new technology out there that you can take your time and walk around. Not a mural, not a picture, not a Plaster of Paris copy. We have real assets out there. What we had out there at OTC this year was our latest prime Ideal Rig. That was our latest technology and you could have walked around it. We've now commercialized that technology. We sold it and we're delivering it.

So what's next? What's next is raising the bar. We're not satisfied with that. We cannot be satisfied with that. So we're raising the bar. We are working on the next land rig of the future and that land rig will have increased robotics for proven efficiencies. Then we're taking a look, not just at the efficiency of our equipment, but the efficiency of the rig itself. How can we work together, both with the customer and the equipment layouts and the technology to reduce non-productive time and flat time in the overall operation of a rig, therefore, reducing the effective total well cost, which is where everybody wants to go.

Alright, let's move to jackups. Well, jackups have been very, very good to us. We have sold 222 jackups. These are orders booked. What's the outlook look like? Well, there is some concern about China. So maybe I'll get in front of the question. If you take a look at China, we are executing in, I think, 11 shipyards in China today. Those rigs are being built. Equipment is being delivered. In fact, we've got one jackup right now that the customer is driving to have early delivery on. So China is working now. There's more to it than that. As you guys well know, there are a lot of rigs, and there are some entrants in the marketplace that are not traditional drilling contractors. They are just effectively investors. In this marketplace, the investors are going to struggle. There are some very competitive financing terms that they were able to secure, basically 10% down and 90% at delivery. There will be some wringing of hands at various points in times, but we feel pretty comfortable about it. The financing was supplied to these Chinese shipyards by the Chinese National Bank. China Incorporated is behind this. We believe China Incorporated will execute these rigs and they will be delivered.

National oil companies - their timeline runs a little bit behind everybody else's. The best way to figure it out is there's a lot of bureaucracy sometimes in these companies. The budgeting process takes time, but they are in the marketplace right now looking at assets. Harsh environment-- harsh environment is a niche sort of rig, and there are customers today who are in the marketplace looking at building harsh environment for specific applications.

We talked about the fleet renewal. The numbers that David gave you are going to continue on and on. We started with a very old fleet. We still have a very old fleet. So where is it going? So if we look at from an industry-wide point of view, if you take a look at the past, it's 195. If you then look forward, we think it'll be 201. So you are saying, oh that's flat. Well it's flat on a record number. 195 jackups was a record number. The industry still has legs. Again, going back and it's underpinned on where we see the marketplace going on the data that we've used from ExxonMobil.

Alright, let's move to floaters, the big boats. Some people say I love all my children the same, but I love one little bit more than others. Well, that's $250 million. You got to sell a lot of land rigs to cover one of those, and they're just pretty. I just love the vessels. 162 have been booked and those are our bookings. What's the outlook look like? Well, yes, it's getting a little soft right now. There are some short-term capacity issues. One rig was just delivered and went out for $377,000 a day. That rig a year ago would have gone up for probably $600. There's a couple of rigs that will get delivered here shortly that do not have a contract at this very moment. People are pulling back and not building at the same pace that they were before. We think that's a short-term issue. It's a short-term issue, because you go back into the data that David went over with you. Deepwater is going to be a major growing element in the future. There will be a short respite and I'll talk a little bit more about that later. The long-term demand continues. There's also a midwater element. It's interesting to see today that even the Chinese believe there is a mid-water element. They've jumped up to build a bunch of mid-water rigs on spec. There are, depending on who you talk to, somewhere between 40 and 60 mid-water rigs that are over 30 years old. There is not a lot you can do with those rigs. Those rigs will end up getting retired. The market segment that they participate in, the wells that they work on still exists. You will see an element of those rigs being replaced by new assets.

We then have some specific sort of assets that are kicking around and you guys have heard about it. The Arctic comes and goes. The Arctic is there. I mean if you're to believe what the Russians said, they made a huge well. If you talk about Alaska, they're still taking a look at going back in there. That is still underpinning some specific design rigs that will be built, and then we have 20K. There are multiple oil companies in the marketplace today looking to build 20K rigs and we're in active discussions with them now. If we take a look at the past compared to the future, 137 in the past, a massive industrial performance. Going forward, 207. We have some softness, but the marketplace actually has more headroom.

We've got great graphics people. I'm going to talk to you about a drillship of the future. We don't just look at land rigs of the future. We have projects where we're looking at a drillship of the future, and this is an active engineering project we have going on. We're looking at high capacity, high speed, heat compensated drawworks, over and above what we're doing. Guess what, Deepwater is going to expand. It's going to expand into harsher environments. The equipment that's been delivered today will need to be better. We're taking a look at processes. We're looking at just flat time, making the drill floor configurable. If you've ever been on a drillship drill floor, they are big, but they're not as big as this. It takes time to move this stuff around. At $500,000 a day, that's expensive time.

Managed Pressure Drilling is becoming something that the industry is looking at. We're going to incorporate that into the designs of the assets in the beginning. Fully automated pipe handling, Hege talked about semi. We're going to go full. That's going to improve efficiency and safety. We've taken a look at these rigs. These rigs when you compare them to a factory, are more advanced in the robotics than factories. We're working in a much more difficult environment than they are and performing at a higher level. This derrick looks totally different. This is a totally different concept. We're racking all the pipes down into the hole. I'm not going to tell you all of the neat stuff here, but that's a totally different design. A 20,000 pound BOP, we're going to make it to where we can service that BOP subsea, so it doesn't have to be pulled.

Then we're going to start moving in and saying okay, how can we make the rig safer? One of the things that we're looking at in making the rig safer is moving the people away from the wellbore. It's not putting these guys in an office that's 5,000 miles away, but it's moving them away from the well center. Today, people are working within feet of the wellbore. There's no reason that has to happen tomorrow. We can move them back away from that and be in a safer area. Here's a little bit more granularity, and this is where we start talking about the softness, but it also is where we start talking about how the elements within our capital business are changing. This is a forecast for 2014 and if you wait till the end of 2014, you'll be able to figure out what that is or you can guess today.

The bookings will be off in 2015, and the main thing that's going to be off in 2015 is going to be offshore because of the softness in the marketplace. Our land bookings will be more robust. So as a percentage and an absolute number, it will be larger next year. We then see

it starting to recover in 2016. What makes you think it's going to recover in 2016? Start to think about these rigs, these rigs are three years on the floaters to get out. If you take a look at the deliveries that are coming out, they are within the backlog today. There will be gaps in requirements for rigs to be out in late 2018 and 2019. We are already in discussions with many leading customers who are taking a look at that.

The other thing that they're looking at is not looking at a copy of the rig they have today. They want that next rig, they want to differentiate themselves by having leading technology in the next round of construction. What's that look like when it hits the P&L? When it comes to hit the P&L, it's a little bit different. It's a little bit different because it goes back to the size of the projects in our POC accounting. We'll actually feel the pain a little bit more in 2016. Our backlog will help carry us through 2015, which today is roughly, for Rig, about $14 billion; but we will then start to recover in 2017, 2018, and 2019. Let's go back to where we started just to make sure you guys understand where our mind is and where we believe the market is going.

We talked about how the land rig business is going to continually grow and that's going to underpin our growth going forward. There will be a respite, there will be softness in our bookings in 2015, which will hit our P&L in 2016, but it will recover. The new technologies that we talked about here today, and our efficiencies, are going to drive our margins back to a level that we had in 2011, actually a discount to what we had in 2011. they look like big movements, but when you break it down and understand it, I wouldn't say it's conservative, but it's a relatively attainable goal. Let's go on to Rig Aftermarket business. What's in the Rig Aftermarket business? Well, it's our spares business, our service business, repair and training.

On spares, we have two large hubs and six remote hubs around the world and several other depots that maintains roughly $1 billion of inventory to support the installed base around the world. We have B2B relationships with many of our customers and we will be growing that. We have some of the most efficient material handling that you'll see. We have a new facility, which you see here, which is out here on the way to the airport. Again, we would love to show you that. In fact, anytime you guys want to see anything, we would love to show you that. We are very proud of what we have as an organization. We then move into services. Services-- we've got 1,500 service engineers supporting this installed base. We have remote technology, which is allowing us to monitor equipment on a real-time basis 24/7.

Repair is a business that is growing quickly. It is underpinning our SPS business. We have 10 major repair centers where we can effectively repair anything we make and several smaller repair centers for the smaller marketplaces. Training-- we think we lead the industry in training. We have a technical college. We started our technical college because we wanted a people factory. It doesn't sound very PC, but that's exactly what it was. We were not going to be hostage to the industry poaching our people, which they do, and then not having qualified people. We created seven campuses around the world so that we're educating close to the coal face. We will graduate 450 service engineers this year.

Those service engineers will be in that college from a period of 6 to 12 months. Our investment in them is on average $200,000 per employee. That's more than I paid TCU for my daughter last year and that was expensive. These guys are not generating $1 for this company until they have graduated and improve their competency. We then take a look at our customers. We train 6,000 of our customers. We've often said we train the industry. I think it's fair to say we train the industry from these facilities. It's a core competency for us, it's what we invest in, it's what we believe in. What's the next part of our aftermarket strategy? Well, the next part is growth. We need to grow our operations so that we're there to help them. We've got a plan in place to add 13 more facilities in the next two years.

We are and will be where the activity is. SPS, this gets a lot of questions. I think it's misunderstood some way so I will try to give you our view and hopefully that will help give you more clarity into it. What is it? It's a special periodic survey. It's a five-year calendar. It's for the offshore industry. Why is it for the offshore industry? Well, it had its roots actually in shipping. It came from five-year inspection on holes and then as the industry grew, that was a major event so we started looking at doing the rest of the critical equipment in that time period. It is regulatory, but it's not exclusive. It's regulatory based on class so if you're DNV or ABS and you're going to maintain that class, then you are going to have to do this process.

If you're in the Gulf of Mexico or you're in Offshore Norway, you're going to have to do this process. If however you have a 20-year or 30-year-old rig and it's always going to be somewhere on the other side of the world, you may not do this. So, it's not mutually exclusive. Upgrades and new equipment. This is a major event when you bring this piece of equipment into the yard. It's a great opportunity to upgrade equipment during that period of time so there will be capital assets actually installed. Now, we've had questions about where that revenue is going to show up? Well, the capital revenue for us shows up in our capital business. The sweating part of the SPS business, which is the installation of it and the repair and recertification, is in the aftermarket side.

I know it would be easy if we put it all together for you guys. For us, it's more efficient to tie the revenues where the people do the work. It is

an OEM activity because the OEM will be required to give a certificate of compliance. Only the OEM can give that. So go back to our installed base. We have a huge installed base. We've delivered a lot of rigs. This is underpinning a very big business coming at us and there it is. In fact it's not just for us, it's for the industry. I've had some of my customers classify this as a tsunami and it is a tsunami because we're not ready as an industry. This will put a load on the drilling contractors, it puts a load on the OEMs, and it puts a huge load on the shipyards.

Today, we're doing roughly 40 and then we're going to peak out at 200. Now, how are we going to address this? Well, we've seen this coming for a while so we have created a business team within our business, that's all they do with SPS. Every morning they get up, they think about SPS. This will be one of the fastest growing teams that we'll have. They sell the job, they engineer the job, they execute the job, all together as a team. That team is now aggressively and directly working with our customers to make sure that we plan for this Tsunami. This is going to drive a lot of growth for us. Now people say, "well, what's it worth?" Well, how long is a piece of string? It could be $1 million if it's a jack-up in its first five year and there's not much done.

It could be $40 million if it's an offshore floater on if its 10 or 15. We talked about changing on equipment where there's revenue that we can bring in through the SPS and in general activities. When we sell a rig, those components will need to be replaced and upgraded for the most part at some point during its life. So if you take an Iron Roughneck, it sees some of the hardest service of any of the equipment on the rig. Those things last about seven years. So when we sell a rig, we could sell three Iron Roughnecks in the life of that rig. Controls-- controls is a tough one because software gets obsoleted. What's worse is you'll end up getting into the componentry that supports the software that gets obsoleted.

These systems have to go through major refits and replacement on average about every 10 years. Pipe handling also needs to be upgraded, it sees heavy use. Even a top drive, there are very few rigs that see out their entire life with the original top drive. So, let's now look at it in a different way. Let's talk about the accumulative spend. If you say that our revenue opportunity on average for a jack-up was $45 million and on average for a floater was $200 million, then take a look at it and say what is the spend going to be over a 25-year period. Well, for us, and we spent a lot of time on this, we have a huge spreadsheet behind it and we quizzed it pretty hard because I was afraid of putting too big a number out there because Clay was going to hold me accountable for it.

$82 million for jack-ups; 371, the installed base driving huge revenue growth in our aftermarket business. Let's go back and look at some historics. You can see that the trends that we're talking about are actually founded in a level of fact. This stuff was actually circulated to you guys when we did the re-organization, so you've seen some of these numbers. Essentially we have an aftermarket business that has grown since 2009 at 15% per annum and that's what we're forecasting going forward. Again, it's this growing installed base; then SPS is kicking in, that's going to drive that growth and a 27.5% average operating profit. Let's go back to looking at it in a more macro point of view from the aftermarket side.

We've talked about the installed base and the SPS. There's your 115, the 130, and the 200. Some people will say, well why is it only 200. 27% operating profit is a good return on this business and we will drive efficiencies where we can. Putting it all together, what would I like you guys to take away from what I said here today, and I hope that you gleaned from what we talked about, is our long-term fundamentals remain very strong. Land rig strength is today and in the future, our installed base is a huge competitive advantage for our organization, our aftermarket business will continue to grow in the mid-teens underpinned by everything that we went through. Land and aftermarket will offset the softness that we're going to have in 2015 and 2016 and then the offshore business will recover and will be back up on the sort of trends that we have today.