

Brazilian Wave

February 2016 Issue: 53



BRAZILIAN CREW

The changes to local content for crew are game changing, at a time when the industry really needs it



WESTSHORE

DO BRASIL

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Look Ahead

In 2016's first issue of Brazilian Wave we take a look at what's in store for the year ahead.

1. SPOT MARKET

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30%

Reduction in drilling rigs offshore
Brazil from 2012

126

Number of operating production
platforms at end-2015

2.437 MBP/D

Average oil production in 2015

18%

Increase in daily oil production
from 2012



SPOT MARKET

How offshore activity will translate to demand for vessels on the Brazilian spot market in 2016

2015 was the year underlined by the fall in oil prices and economic weakness suffered by Petrobras. This led to rising debt and falling ratings for the oil companies as well as a 30% reduction in drilling rigs offshore Brazil from 2012 to 2015. According to the National Agency of Petroleum (ANP), in 2015 there were 67 drilling rigs operating in the country, down from 92 units in 2012, 86 in 2013, 72 in 2014. As a consequence, the number of exploratory wells completed in 2015 was 78, a reduction of 65% from 2012.

Brent crude has tumbled more than 70% from its peak in 2014. A field operating at around USD 34 per barrel will incur losses passed on to the whole sector, the

result of course is cuts in investment. These cuts have been evidenced around the globe, not just in Brazil, and have had an acute effect on operations in new areas, which in turn is going to impact future production. In the current climate, operators have a reduced appetite for exploratory wells, which by nature is risky and as a result are being continuously postponed.

The consequence of low exploratory activity is more rigs are expected to leave the country generating demand on the spot market as seen last year. We can expect some demand for fuel runs and from rig or vessel term docking which cannot always be planned in advance but hopefully can generate some activity for available tonnage.



Vessels await work outside Guanabara Bay

IOCS

This year, just like in 2015, we should not expect impressive exploratory activity from the IOCs but we may see a few RFI's for the 11th Round as companies like BP, Total and Premier plan to start drilling campaigns in 2017 while BG (Shell) and Statoil in will come in 2018.

Meanwhile Karoon's tender issued last year has been postponed for Q4 2016 while the Australian company is looking in to hiring 3 AHTS + 1 PSV + 1 OSRV + boom handler for 90 days firm + 2 x 30 days + 6 x 15 days options. The drilling program consists of two firm wells and two optional wells with possible sidetracks/well testing. Operations will occur in blocks BM-S 61,62,68,69 & 70 in Santos

Basin.

Brazilian OGpar concluded the demobilization of the FPSO OSX-1, which was operating in Tubarão Azul field. The unit will leave Brazil for Norway and despite all company's efforts, the future of its Tubarão Martelo field and FPSO OSX-3 is still uncertain due to high operating costs and low production in the block.

On the other hand Petrorio (HRT Oil and Gas) have maintenance needs in the FPSO Polvo, and intervention on wells via their fixed jacket Polvo to increase production. The company has recently hired a PSV 4500 (Bravante VII) for 30 days firm to perform a well stimulation job. Shell may come to the market seeking a PSV to support its BC-

10 field. The sell agreement of 80% for Bijupirá & Salema and the FPSO Fluminense to PetroRio has recently rescinded

PROGRESS IN PRODUCTION

Despite the sharp fall in exploration activities, the number of production platforms operating in the country was practically stable, totaling 127 units in 2015 compared to 126 in 2012. This number is due to the replacement of platforms operating in mature areas of production units in the Brazilian pre-salt. The average oil production in 2015 amounted to 2.437 million barrels of oil, up 18% compared to 2012, after heavy investments made in previous years, according to ANP.



IOCS

Petrobras aside, several independents have some ongoing activities in Brazil. Active in Brazil since 2001, today Statoil is the second largest producer of oil and gas in the country.

The Peregrino field in the Campos Basin is the jewel in Statoil's Brazilian crown and its largest international project as operator. Peregrino started operations in 2011 and currently produces between 90 and 95 thousand barrels of equivalent (bpd) according to the company. It's also the eighth largest oil producing field in Brazil, according to the latest data published by the National Agency of Petro-

leum, Natural Gas and Biofuels (ANP).

In addition to Peregrino, Statoil has exploration blocks in mature basins such as Campos and Espirito Santo, as well as border areas, such as the basin of Jequitinhonha. Most of the licenses are located in areas of deep water, some reaching more than 2900 meters deep.

Recently Statoil ASA signed several deals with Repsol SA that will affect both compa-

nies' stakes in fields offshore. As a result of the transactions, Statoil will be operator of a higher number of concessions in priority areas in the world. In an agreement with its license partners, Statoil will assume operatorship of the Exploration License BM-C-33, comprising the Pao de Acucar, Gavea, and Seat discoveries in the Campos basin, pending approval from authorities.

The discovery of the BM-C-33 prospect was made in 2012 by Repsol Sinopec as operator. The partners have since completed two successful appraisal wells to further determine the size of the discovery.

Though Statoil is growing its operations in Brazil, every change needs adjustments. The transferring of the operation of BM-C-33, from Repsol Sinopec Brazil (RSB) to Statoil Brazil, some RSB employees will be gradually let go. Besides the human resources, Statoil will also look to optimize material resources.

Recently the Norwegian Company canceled a PSV requirement since the agreement with Repsol provides suitable resources - even if approval is still pending.

REPSOL SINOPEC BRAZIL PRE-SALT

Aside from BM-C-33, Repsol has two major projects in the Brazilian pre-salt: Sapinhoá, which is in production and the BM-S-50 block, both in Santos Basin.

The Sapinhoá field, located in the BM-S-9 block in pre-salt Santos Basin, was primarily responsible for the increase of Repsol's production, where the company has a 25% stake. The field is responsible for most of the production of Sinopec Repsol and has five production wells connected to the FPSO Cidade de São Paulo, which is already in its plateau, producing about 120,000 barrels of oil per day (bpd), and another three connected to the FPSO Cidade de Ilhabela, currently producing around 90,000 (bpd), but with the capacity to produce 150,000 (bpd). The remaining production comes from the Albacora Leste field in the Campos Basin, which the company has a 10% share. The culmination of which has seen Repsol Sinopec Brazil become the third largest oil producer in the country. We can conclude therefore, that these two oil giants will continue to invest in Brazil, growing and generating opportunities for our industry. There is hope that others will follow suit.



SUBSEA & SEISMIC

Subsea Projects in Brazil: While some projects are in their final stage, many opportunities could emerge simultaneously resulting in high demand for term vessels

The subsea companies have been in a dry-spell of new projects lately, as an outcome of Petrobras' significant cuts in investments.

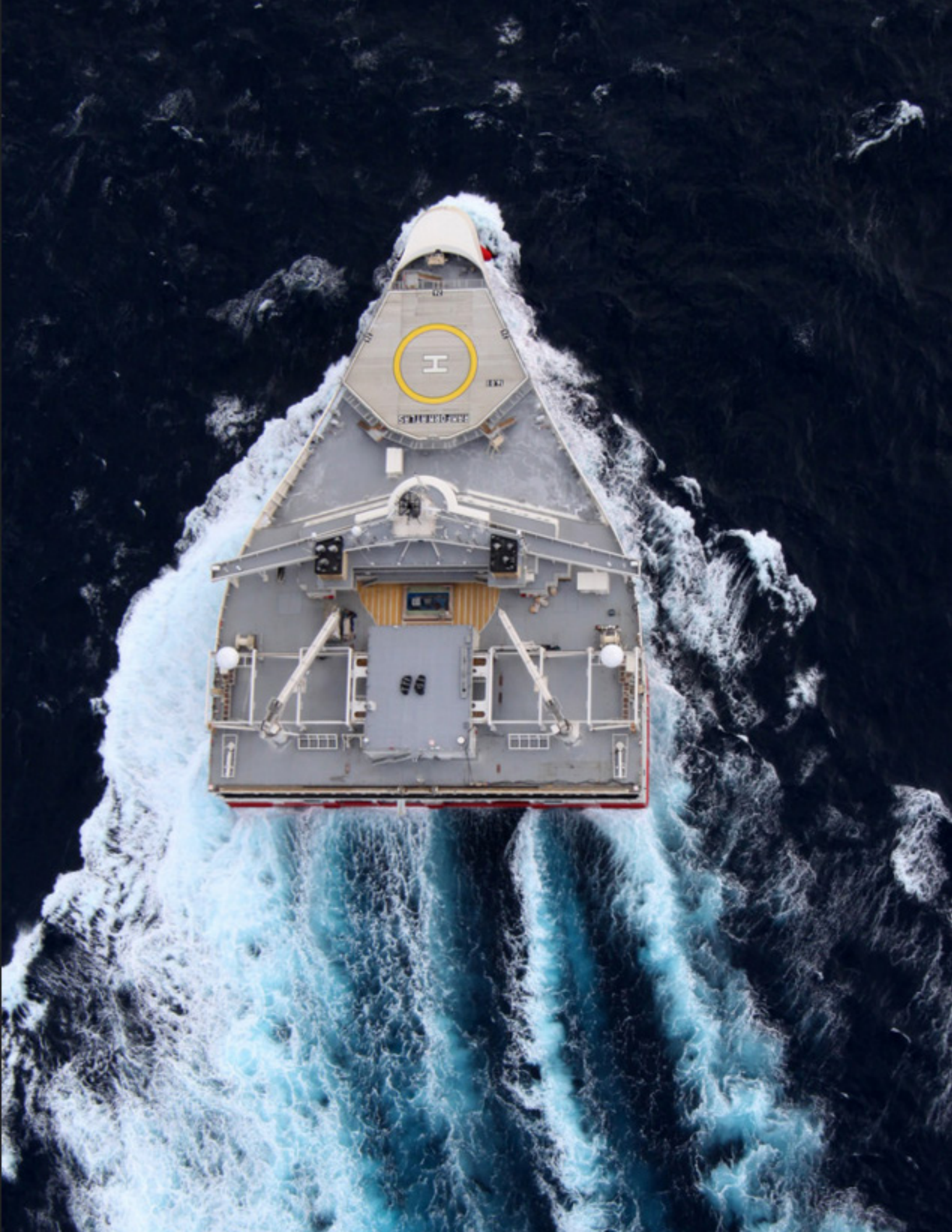
Iracema and Pre-Salt projects from Saipem are in their final stage, leaving the company with only one ongoing project in 2016, the EPCI contract with Petrobras for Lula Norte, Lula Sul, and Lula Extremo Sul pipelines. This project will hire PSVs 4500 starting in Q2 2016 for 60 days, followed by a minimum 120-day demand in Q3 2016. Technip was awarded a contract for the supply of flexible pipes for the Libra Extended Well Test field, located in the Santos Basin pre-salt area, Brazil. This is one of the first steps of the Libra giant field development. The flexible pipes will be produced at Technip's manufacturing sites in Vitória and Açu, Brazil, and their delivery is scheduled to start in the second half of 2016. Usually, spot demands for barges and tugs for the flexible lines transfer happen when delivered. Allseas recently released a tender to hire up to 4 large PSVs (pipeline transportation) for ROTA 3 Project in Brazil. Allseas' operation is expected to take place in Santos and Cam-

pos basin, commencing around October/November 2016 and lasting until March 2017. Meanwhile, as Subsea7 has concluded the projects BC-10 (phase 3) and Guará-Lula, the company continues to study new projects while it operates a solid fleet of specialized vessels for Petrobras. DeepOcean has the DSV Deep Endeavor concluding its flexible repair and IMR services contract with Petrobras, and currently there are no new projects confirmed for the company.

SEISMIC CAMPAIGNS

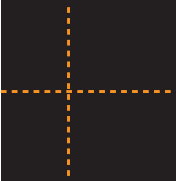
Seismic campaigns are always a good opportunity for charter of small supply vessels and chase boats, to assist usually foreign seismic vessels. After the unsuccessful bid in 2014, the rebid for 3D seismic survey issued by the Libra consortium was recently postponed again. The campaign, which is expected to start within 2016 and take more than six months, will cover the southeast part of the exploration block and shall consider nodes and cables technology. As part of Karoon's evaluation plan in the Kangaroo field, the company will carry out a 3D seismic acquisition throughout this area, with the operation expected to

start in Q4 2016. In 2016, seismic companies will carry out a few projects with the IOCs in Equatorial Margin as well. In partnership with other companies in Ceará basin, Premier Oil hired PGS to collect 3D seismic data at five blocks in the area, covering about 7,500 km², and acquisition phase has recently been concluded. The seismic vessel Ramform Atlas from PGS moved further east on Brazil's Equatorial Margin, to begin 3D Multi-client data acquisition in the Potiguar Basin covering about 2,700 km², and shall conclude the campaign within the 1st half of 2016. With the research vessel Polarcus Alima, Polarcus is currently covering Barreirinhas and Para-Maranhão basins for Chariot and QGEP respectively, and soon will move down to Santos Basin in a 3D seismic campaign with Petrobras, totaling about eight months. Meanwhile, CGG is planning on starting a 3D-multi client survey in Barreirinhas basin in Q2 2016, covering about 14,500 km² for BG, BP and Ouro Preto. Other seismic licenses from IBAMA are still pending and may be granted throughout the year, generating more activity still in 2016.



SHELL & BG MERGER

How will Brazil be affected?



With the approvals from stakeholders from both sides being obtained in the last 15 days, Shell has now formalized the merger with BG. This global movement has special value for Brazil operations as both companies are already at the forefront of investments in oil and gas in the country. Shell operates two megafields in Brazil. Firstly it has one of the largest FPSOs from the private sector in their Parque das Conchas field, into its third phase of development being concluded and with a consolidated production since 2009. Shell also operates the FPSO Fluminense with oil and gas from the fields of Bijupirá & Salema, a mature profitable field which had been sold to Petrorio however not concluded, has been recently withdrawn.

BG is the largest private oil and gas producer in Brazil, via non-operated blocks under their existing JVs. With the merger, Shell has now formally gained access to important outputs such as the giant Lula, Brazil's largest producing field. The current combined production output for the new Shell portfolio in Brazil is now of approximately 250,000 barrels a day.

Shell share prices have risen as the takeover is completed. Market sources attribute the rise in company value to the key LNG portfolio from former BG, but also to the material position the company will have in Brazil from

now on. Brazil ultra-deep water fields with the pre-salt operations characteristics adds a relevant strategic position to Shell, also considering potential growth of fields the company already participates on and where breakeven costs are lower than USD 50 a barrel.

SHELL BECAME PETROBRAS' LARGEST PARTNER WITH THE BG TAKEOVER.

What changes can we expect for the offshore support sector? Nothing immediately. In the long run however, the expectation is of major changes with Shell heading up numerous assets being a hypothesis not far from reality. Shell CEO Ben Van Beurden has confirmed that Brazil "will remain a key destination country for investment at least for another decade". One line without a doubt is the expectation of oil majors for a new balance of the oil price - and as low as USD 50 / barrel oil seems adequate for the merger; but also with the current Petrobras constraints it is expected that some of the assets of the state giant may be operated by co-venturers. It would not be a surprise if on the divestment plan of Petrobras even partial stakes on these operations are sold to current partners, and companies who do not have an operator role in the JV may become operators. Shell (the new Shell) not only

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holds a prime partnership position with Petrobras, but also a historical track record in its operations in E&P since the Merluza gas field agreement before the monopoly being broken. Shell has also been present in the Brazilian downstream sector for over a century. This relationship only gets reinforced when large production volumes from BG are added on top. The chances of Shell being ahead in becoming operator of some of the oilfields where they are present are not low, albeit completely speculative at the moment.

One pressing factor however is, Shell will be on the spotlight to prove their ability to revert the merger into sustainable dividends to shareholders in the coming years. Tight management of oil fields and optimization of resources and reduction of cost play one of the most vital roles in this. The moment couldn't be more appropriate for this type of discussion with Petrobras, including logistics and the tremendous size of offshore support needed on distant ultra-deep fields. Shell will start coordinating activities with Petrobras taking over from BG starting this week after all merger formalities are in place.

PETROBRAS NEWS

“LAGOSTEIRO”

Petrobras issued a tender to hire small supply vessels (aka “lagosteiro”) to support mooring operations and cargo runs in Upanema (Rio Grande do Norte), in the northeast of Brazil. Operation is expected to start mid-April 2016 for 730 days, and proposals are due 2nd of March.

OSRV 750

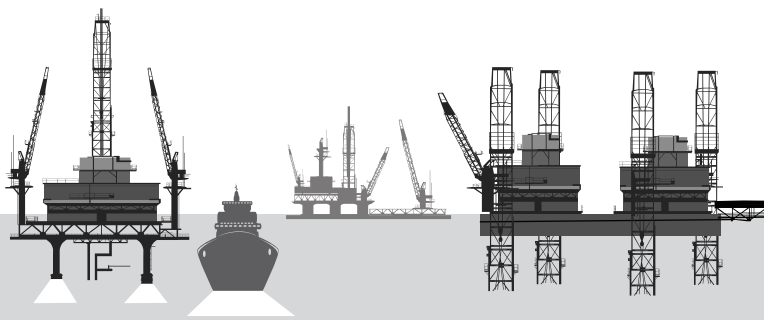
The tender issued on 13th of November for OSRV 750 was postponed again to March 15th. Petrobras is seeking Brazilian and foreign flagged vessels with contract commencing around October 2016, and contract period of 2, 3 or 4 years plus options of the same duration.

PETROBRAS RSV

The market is still awaiting the technical qualification from Petrobras for the RSV tender issued in June last year for 730 and 1095 days and delivery up to July this year. The proposals were presented to Petrobras on December 18th.

PETROBRAS 4500

Petrobras has released the commercial results of the PSV 4500 “re-tender” for 730 days firm contract as per table in the next page. Owners are now waiting to be called by Petrobras for rate negotiations.



CLASSIFIED VESSELS

PSV 4500							
Company	Vessel	Day Rate USD	Fuel Consumption (m3/d)	Factor c	PEOTRAM Rate	Factor p	Total Day Rate USD
UP Offshore Apoio Marítimo Ltda	UP Esmeralda	20 800,00	10,22	0 %	82,79	0 %	20 800,00
UP Offshore Apoio Marítimo Ltda	UP Amber	21 500,00	10,22	0 %	82,79	0 %	21 500,00
UP Offshore Apoio Marítimo Ltda	UP Pearl	21 500,00	10,22	0 %	82,79	0 %	21 500,00
UP Offshore Apoio Marítimo Ltda	UP Jasper	21 500,00	13,2	0 %	82,79	0 %	21 500,00
Siem Offshore do Brasil S.A.	Siem Supplier	22 499,00	7,98	1 %	80,58	0 %	22 274,01
Norskan Offshore Ltda	Skandi Caledonia	23 987,00	7,17	3 %	95,87	2 %	22 788,85
Deep Sea Supply Navegação Marítima S.A.	Sea Spider	23 500,00	9,03	0 %	75,94	0 %	23 500,00
Olympic Marítima Ltda	Olympic Princess	24 900,00	8,35	5 %	82,02	0 %	23 655,00
Farstad Shipping S.A.	Far Service	23 950,00	9,83	0 %	80,47	0 %	23 950,00
Maré Alta do Brasil Navegação Ltda	Monty Orr Tide	24 750,00	8,9	3 %	84,99	0 %	24 007,50
Maersk Supply Service - Apoio Marítimo Ltda	Maersk Vega	24 375,00	17,38	0 %	79,45	0 %	24 375,00
Bram Offshore Transportes Marítimos Ltda	Bram Búzios	24 422,00	11,33	0 %	82,79	0 %	24 422,00
Bram Offshore Transportes Marítimos Ltda	Kudu	24 422,00	9,16	0 %	82,79	0 %	24 422,00
Bram Offshore Transportes Marítimos Ltda	Bram Belém	24 422,00	11,33	0 %	82,79	0 %	24 422,00
Bram Offshore Transportes Marítimos Ltda	Oryx	24 422,00	9,16	0 %	82,79	0 %	24 422,00
Bram Offshore Transportes Marítimos Ltda	Sable	24 422,00	9,16	0 %	82,79	0 %	24 422,00
Bram Offshore Transportes Marítimos Ltda	Santos Sailor	24 422,00	11,38	0 %	82,79	0 %	24 422,00
Bram Offshore Transportes Marítimos Ltda	Santos Scout	24 422,00	11,38	0 %	82,79	0 %	24 422,00
Bram Offshore Transportes Marítimos Ltda	Santos Service	24 422,00	11,38	0 %	82,79	0 %	24 422,00
Bram Offshore Transportes Marítimos Ltda	Santos Solution	24 422,00	11,38	0 %	82,79	0 %	24 422,00
Maersk Supply Service - Apoio Marítimo Ltda	Maersk Ventura	24 475,00	17,38	0 %	79,45	0 %	24 475,00
UP Offshore Apoio Marítimo Ltda	UP Agate	25 000,00	13,2	0 %	82,79	0 %	25 000,00
Starnav Serviços Marítimos Ltda	Starnav Aquarius	25 793,11	11,32	0 %	80,58	0 %	25 793,11
Maré Alta do Brasil Navegação Ltda	Saavedra Tide	26 900,00	8,9	3 %	84,99	0 %	26 093,00

DECLASSIFIED DUE TO EXCESSIVE PRICE

PSV 4500							
Company	Vessel	Day Rate USD	Fuel Consumption (m3/d)	Factor c	PEOTRAM Rate	Factor p	Total Day Rate USD
Deep Sea Supply Navegação Marítima S.A.*	Sea Brasil	31 750,00	11,67	0 %	75,94	0 %	31 750,00
Asgaard Navegação S.A.*	GSP Altair	32 000,00	13,57	0 %	71,02	0 %	32 000,00





Another chapter in the **NR-72** story Who is benefiting?



Having strict minimum levels of Brazilian crew in any offshore operation has been a firm feature of doing business in Brazilian waters over the last decade. But as Brazil and the rest of the offshore world weather the storm of this current downturn, we take a look at who is really benefitting from these rules.

Effective since 2006, the Normative Resolution number 72, enacted by the National Immigration Council (CNIg), is one of the most relevant incorporation mechanisms of Brazilian seafarers on foreign platforms and vessels chartered by Brazilian shipping companies, operating in the offshore and cabotage navigation.

The seafarers union Sind-mar has consistently worked to assure the fulfilment of the resolu-

tion, which in the case of offshore support vessels means having one third of Brazilian crew continuously onboard the vessel after 90 days of operation, at all levels of operation. After 180 days of operation half the crew should be Brazilian nationals, and after 360 days, two third of Brazilian crew in all levels and activities.

Earlier studies concluded that there were not enough Brazilian officers in the merchant marine to meet the growing volume of Brazilian and foreign vessels. There are currently only two schools accredited by the Navy (CIAGA and CIABA) to train officers.

Even if these schools wished to increase their capacity in training cadets by 30% before 2020, there is still a distinct lack of interest in cadets wishing to further their education to officer level, land-based opportunities proving too strong a pull. Thus, several shipping com-

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panies applied for “waivers”, which are basically requests for deadline extension of the implementation of the NR-72, and they were largely granted. However, in the last couple of years, the waiver has not been granted so frequently, and some shipping companies were fined by the Ministry of Labor and CNIg for not being in compliance. They claim that the gap between supply and demand of officers has been reduced, given the departure of several foreign vessels after their contract termination. Petrobras, which until then did not get involved in this subject, in 2015 started asking shipping companies for a report to be sent every other week with the name, position and nationality of all crew and extra personnel on board the vessels, claiming it to be a way of keeping track of the number of seafarers only.



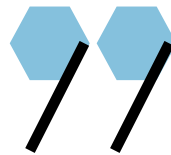
Nonetheless, Petrobras started to warn the companies who did not meet the resolution requirements, giving 10 days to adapt the crew proportions accordingly. Otherwise, there would be millions of dollars in fines according to the contract, rendering the operation of dozens of vessels impossible. Undeniably, the companies should comply with the local legislation which protects the Brazilian labor force, but has the line between reasonable and excessive penalties been crossed yet? Are the fines really turning out to be beneficial to the Brazilian officers, as it was first intended, or only to the parties that apply them? What is currently the real supply-demand ratio of the officers in Brazil, and is it fully balanced?

Recently the union of OSV companies Syndarma went to court to resolve this issue. The court ruled that the NR-72 should increase at intervals after 90, 180 and 360 days of operation and applies to the entire crew complement. So the minimum percentage of Brazilian personell could be made up from any ranking the shipowner chose and would no longer be bound to have set quotas for each and every position on the vessel.

This game changing verdict makes it easier for the shipping companies to meet the proportions as well as to focus on less costly positions, which does not make justice to all crew levels.

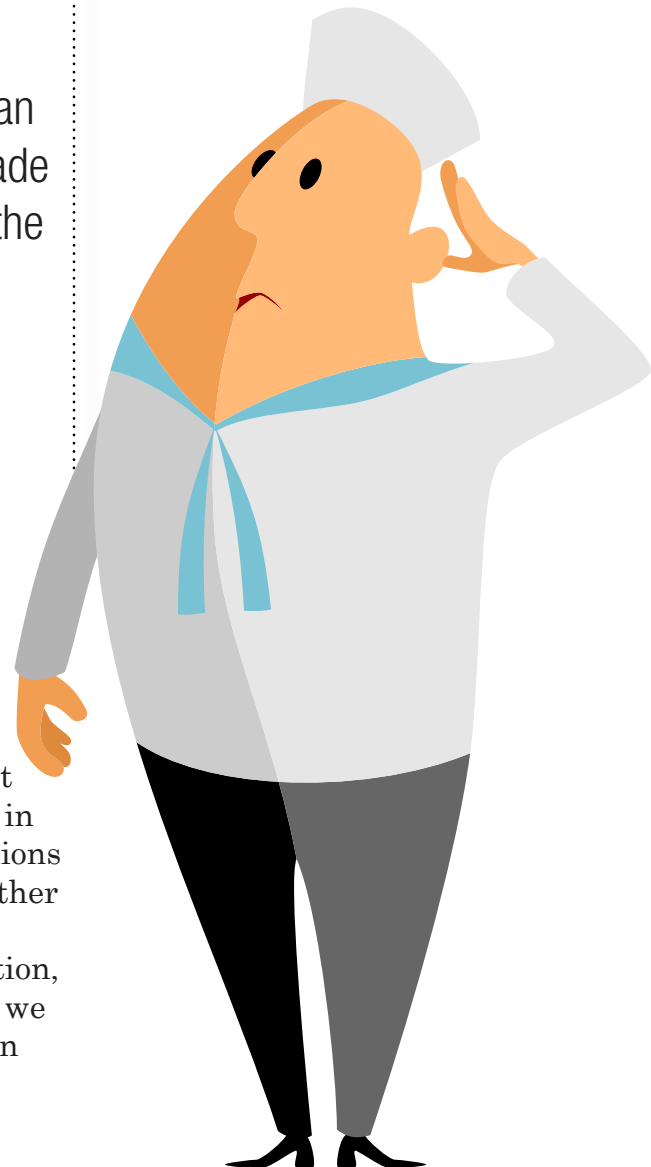


the minimum percentage of Brazilian personell could be made up from any ranking the shipowner chose



Still, Petrobras believes this decision is not conclusive and asked for more information to eventually stop the warnings and fines. Therefore, this is just the start of a new chapter, in which the ministry and unions of all stakeholders will further discuss interpretation and amendments to the resolution, if applicable. In the future we hope that not only the plain

interests of the unions are heard, but also a macroeconomic analysis is done, comprising the drop in charter daily rates, contracts being withdrawn, reduction of new charter opportunities, and the growth of inflation and unemployment rate. It will be tough to find a balance, but it is a challenge the industry needs to face as soon as possible.



The Brazilian year only starts after Carnival?

We are in the middle of February and Carnival has just ended ... Is it finally time to start working? Many say that the Brazilian year only starts after the Carnival. In some cases it is true but it's not fair to generalize.

Carnival is perhaps the best known festival in Rio de Janeiro, where the largest Carnival parties are held, and one of the most important events in Brazilian culture.

The preparation for Carnival starts months before the event. In Rio, spectacular parades are put on by the city's samba schools, street parades are held throughout the city, live Brazilian music is played and much more is part of the big party. Carnival is such an important event in Brazil that just after Ash Wednesday, Carnival industry professionals begin the arduous task of assessment, improvement and planning for the next Carnival. Of course although January and February are when many people enjoy the well-deserved vacation, millions of Brazilians work hard between New Year's Eve and Carnival. Fortunes are made by many types of business in this period. Especially for professionals involved with tourism, leisure and entertainment. Linked with all this, January is in the middle of summer and everybody is thrilled to enjoy this period doing things such as going the beach, practicing summer sports, and getting a nice tan to show off on Carnival.

Nevertheless, it's a big myth to believe that in Brazil things only start to function after Carnival. The beginning of the year is a constructive period in which companies and successful professionals put in implementation plans, goals and objectives that have been discussed and approved in the previous year. It is the period where the major corporate restructuring and the best opportunities for hiring and career happens. We are in the midst of an economic crisis; we have even more reason to be working hard. There is no option! We can't wait every year for the Carnival to end and to start making decisions.

