MISC Monthly

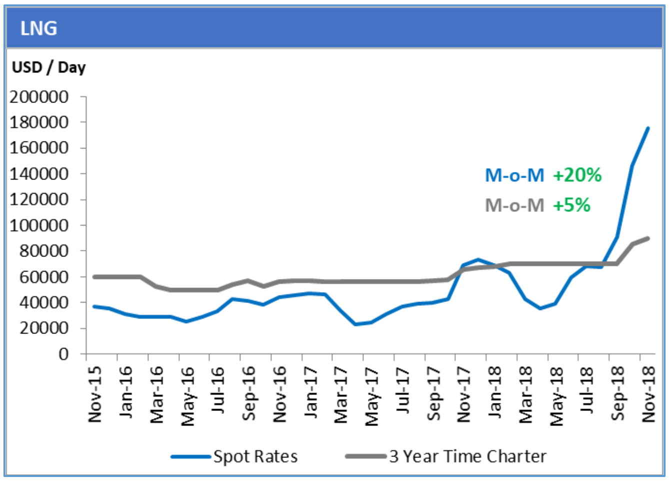
December 2018

moving energy to build a better world

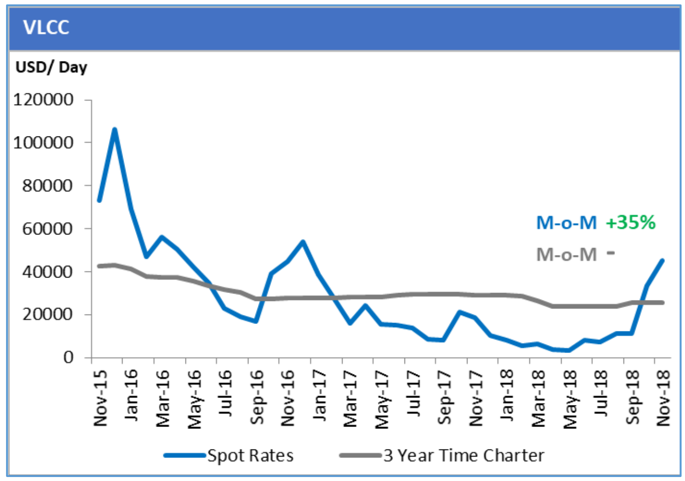
MISC Financial Calendar	
4Q 2018 Quarterly Results	Friday, 22nd February 2019

MISC Announcements
Award of Contract: MISC has signed two Time Charter Parties with LNG Shipping S.p.A. ("LSS") for the time charter of two LNG Carriers known as LNG Portovenere and LNG Lerici ("the Vessels") for operations in international waters.
Appointment of Non-Independent Director – YM Tengku Muhammad Taufik

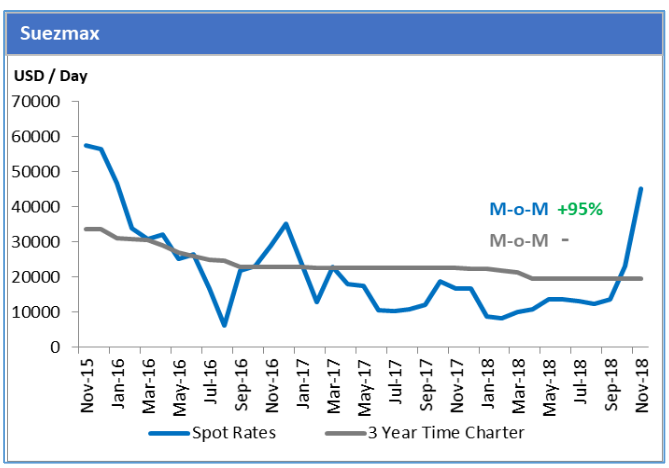
FREIGHT MARKET



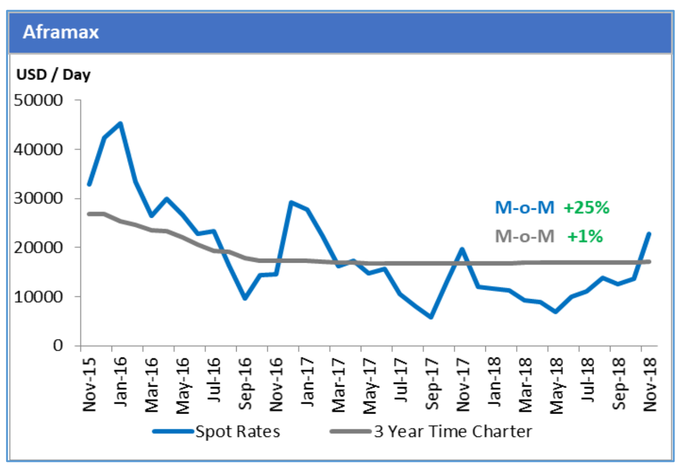
- **As winter sets in, seasonal demand has started to peak with LNG spot and time charter rates continuing to climb in November.**
- **Availability of vessel tonnage in the spot market remains tight, with chartering activities mainly focused in the Far**



- **VLCC spot rates continued the upward trend that began in October, confirming a better winter peak season than last year.**
- **Stronger demand out of the Atlantic basin, the Middle East and West Africa combined with reduced number of older vessels, helped drive rates higher.**



- **Suezmax spot rates surged this month to the highest levels in two years.**
- **Strong demand on the West Africa - Europe and the Black Sea - Mediterranean routes helped push up rates.**
- **Continuing delays through the Turkish Straits also tied up vessels longer, reducing tanker availability.**



- **Aframax spot rates increased due to higher demand on the North Sea and the Black Sea – Mediterranean routes.**

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FREIGHT MARKET

USD/Day	October 2018 Avg	November 2018 Avg	1-Month +/-%	YTD 2018	2017 Avg	2016 Avg
LNG						
Modern Tonnage						
Spot Rates	146,250	175,600	20%	77,976	42,222	34,796
1 Year Time Charter	102,500	107,000	4%	77,182	38,824	32,639
3 Year Time Charter	85,750	89,800	5%	73,061	58,369	54,079
Steam Engine						
Spot Rates	76,250	95,000	25%	45,816	27,735	26,465
1 Year Time Charter	61,875	65,000	5%	42,739	26,381	20,194
3 Year Time Charter	51,500	57,200	11%	38,295	32,631	29,771
PETROLEUM						
VLCC						
Spot Rates	33,491	45,317	35%	13,058	18,242	41,363
1 Year Time Charter	26,125	29,500	13%	22,053	27,143	36,554
3 Year Time Charter	25,750	25,750	-	25,559	28,786	33,002
Suezmax						
Spot Rates	23,111	45,123	95%	15,684	15,856	27,260
1 Year Time Charter	17,250	21,450	24%	16,884	18,534	27,299
3 Year Time Charter	19,500	19,500	-	20,130	22,507	26,296
Aframax						
Spot Rates	22,809	28,608	25%	13,548	13,933	22,885
1 Year Time Charter	15,219	17,850	17%	14,575	15,511	21,491
3 Year Time Charter	17,000	17,200	1%	16,973	16,865	20,603
MR2						
1 Year Time Charter	12,344	12,725	3%	13,061	13,219	15,078
CHEMICAL						
Spot Rates (USD/Tonne)						
Rotterdam - Far East	114	112	-2%	115	105	107
Rotterdam-Taiwan	85	82	-3%	88	83	80
Gulf-Far East	41	41	-	42	37	38
Singapore-Rotterdam	80	80	1%	80	76	76
Time Charter (USD/Day)						
1 Year Time Charter 19,000 dwt	12,750	12,750	-	12,886	13,146	15,513
1 Year Time Charter 37,000 dwt	11,250	11,250	-	11,502	11,438	13,995

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ASSET VALUE

USD 'Million	October 2018 Avg		November 2018 Avg		1-Month +/-%		YTD 2018		2017 Avg		2016 Avg	
LNG												
Newbuild (DFDE, Atlantic Max)	185		185		-		185		183		196	
PETROLEUM												
VLCC												
Newbuild	90		91		1%		88		80		89	
5-Year	65		66		2%		64		61		66	
Suezmax												
Newbuild	60		61		0.3%		59		54		57	
5-Year	45		45		-		43		41		47	
Aframax												
Newbuild	48		48		-		47		44		46	
5-Year	31		31		-		31		30		35	
CHEMICAL												
IMO II 37,000 dwt	S/S	Coated	S/S	Coated	S/S	Coated	S/S	Coated	S/S	Coated	S/S	Coated
Newbuild Prices	N/A	32	N/A	33	N/A	3%	47	31	47	29	49	30
Secondhand Prices - 10 years	N/A	14	N/A	14	N/A	4%	33	13	33	14	36	17

FLEET DEVELOPMENT

No. of Vessels	Current Fleet	2018	2019	2020	2021+	Total Orderbook	Orderbook as % of Fleet
LNG							
LNG Carriers	492	13	36	31	10	90	18%
PETROLEUM							
VLCC	735	2	64	32	2	100	14%
Suezmax	568	2	30	25	5	62	11%
Aframax	643	4	64	24	18	110	17%

DELIVERIES & DEMOLITIONS

Deliveries	Oct-18	Nov-18	YTD	Demolitions	Oct-18	Nov-18	YTD
PETROLEUM							
VLCC	6	2	38	VLCC	2	0	34
Suezmax	1	0	32	Suezmax	1	1	20
Aframax	4	3	48	Aframax	7	4	46

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INDUSTRY HEADLINES

SHIPPING: Ship operating costs reach inflection point as inflation returns

Average vessel operating costs rose modestly for the second year in succession following two years of marked declines, but cost inflation is set to accelerate on higher insurance premiums, according to the latest Ship Operating Costs Annual Review report published by global shipping consultancy Drewry. Typical ship operating costs accelerated moderately in 2018 as the uncertain recovery in freight markets across most cargo sectors gained momentum. Opex costs are heavily linked to developments in the wider shipping market as some costs, such as insurance, are connected to asset values and others impacted by the ability of shipowners to pay. Drewry estimates that average daily operating cost across the 46 different ship types and sizes covered in the report rose 1.1% in 2018, succeeding 2017's rise of 0.7%.

Source: Drewry

SHIPPING: Singapore to ban use of open loop scrubbers in port waters

The world's busiest port Singapore is to ban the use of open-loop scrubbers in its waters and ships will have to use compliant fuel once the IMO 2020 sulphur cap comes into force. "To protect the marine environment and ensure that the port waters are clean, the discharge of wash water from open-loop exhaust gas scrubbers in Singapore port waters will be prohibited. For ships fitted with hybrid scrubbers they will be required to switch to closed loop mode while in Singapore waters. The measures take effect from 1 January 2020.

Source: Seatrade Maritime

PETROLEUM: Tankers rebound in November

In November, tanker spot freight rates for dirty vessels showed a significant increase as rates continued to rise from the previous month, as per the latest monthly report from OPEC. Average spot freight rates increased for the third month in a row, showing a gain of 21% on average from the previous month. Freight rates for all classes in the dirty segment of the market increased on all reported routes. VLCC spot freight rates went up from the previous month, supported by increases in tonnage demand in major trading areas. The Suezmax class also benefited from a firming market, showing higher levels of increases in spot freight rates supported by a tightening tonnage list and increased transit delays in the Turkish Straits.

Similarly, Aframax freight rates edged up in November, mainly as demand and rates in the Mediterranean and US Gulf Coast (USGC) surged. Additionally, delays in the Turkish Straits reduced the supply of vessels and raised freight rates significantly on a monthly and annual basis. Clean tanker spot freight rates also showed gains in November, benefiting from seasonal demand and higher chartering activities in both the eastern and western directions of Suez. Tanker market earnings in both the dirty and clean sectors were enhanced in November on the back of lower bunker prices, thus reducing operational costs.

Source: Hellenic Shipping News Worldwide

PETROLEUM: Tankers: Ton-mile demand poised to increase

After a long time in the doldrums, the tanker market is primed for better days, as a result of a projected increase in ton-mile demand and various factors coming into play, from the sanctions on Iran, to the US-China trade war. Meanwhile, the product tanker market could also stand to benefit in the medium-term, as a result of the looming IMO 2020 rules and a series of changes of consumption habits in Asian countries.

Source: Hellenic Shipping News Worldwide

LNG: Do not burn fingers in today's red-hot LNG shipping market

Since May, the LNG shipping market has tightened considerably. Our assessment for spot rates for a 160,000-cbm, tri-fuel vessel increased from $40,000 per day to about $140,000 per day. A modern ship with XDF or MEGI engines, if available, is achieving even higher rates. Additionally, all vessels are spending less time off hire, resulting in the best returns since 2013. This is good news for those shipowners that have been suffering over the past four years. It will allow them to recoup some, if not all, of their losses.

Source: TradeWinds

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LNG: LNG rates burn bright on Chinese demand

The global appetite for LNG is rising as new demand hot spots for the clean-burning fuel are developing. The far east is one of the fastest-growing markets. China and South Korea have developed a new thirst, while Japanese imports have faltered. These dynamics are bringing substantial change to the gas carrier shipping market. The largest increase in tonne mile demand has been driven by China.

Source: Lloyd's List

LNG: Higher charter rates for LNG shipping here to stay

LNG shipping prices are likely to remain high as new export capacity comes online, with orders for new vessels putting pressure on shipyards. The LNG industry faces a prolonged period of higher ship charter rates as new export capacity in the United States and growing demand in Asia will result in longer journeys and greater demand for vessels over the coming years. The availability of ships for spot charters has dropped as arbitrage opportunities between Europe and Asia have increased. This has seen more vessels making the journey to Asia than anticipated, particularly from the two export projects now online on the US Gulf Coast.

Source: Interfax Global Energy

LNG: LNG shipping requirements likely to grow

Liquefied natural gas (LNG) shipping requirements only seem likely to grow with impacts on pricing and pipeline politics, Dr. Theodore Karasik, Senior Advisor Gulf State Analytics Washington DC, told Trend. He noted that global natural gas markets are being reshaped by the development of major emerging LNG buyers led by China, and the rising production and exports form the United States. “In particular, US LNG is making its mark in Europe as enticement to bring European countries away from sole dependency on Russian gas exports. Poland is already importing its LNG requirements from America and other countries may join,” said the expert.

Source: Trend

LNG: Small-scale LNG opportunities abound in Southeast Asia

Southeast Asia, especially archipelagic nations such as Indonesia and the Philippines, offers myriad opportunities across the small-scale liquefied natural gas value chain. However, challenges remain and there are barriers to be overcome before small-scale LNG can really take off, say those in the know. “Indonesia has amazing potential for small-scale LNG. Always had and always probably will,” Tuomas Maljanen, Fearnleys LNG ship broker told a panel discussion at OSEA 2018. Sanjay Verma, Wartsila Director Business Development LNG Asia believes that the proposed Central Indonesia project, would “kick-start” the small-scale LNG industry in the republic after several years' delay to Pertamina and Perusahaan Listrik Negara's plans to expand such infrastructure. State-owned electricity company PLN and national oil company Pertamina both have ambitious plans for small-scale LNG in both heavily industrial and remote areas of the island nation, that would require floating storage and regasification units and feeder vessels.

Source: Upstream Online

OFFSHORE: FPSO market picking up wind

The floating production storage and offloading vessel market is expected to be resilient over the next four years, according to consultants Energy Maritime Associates (EMA). Speaking at the OSEA conference in Singapore, EMA managing director David Boggs said the FPSO market was back on strong footing, with the recovery expected to continue through to 2022. EMA said about 11 FPSO awards have been placed so far in 2018 after a lull in the floating production market that lasted for two years. Boggs believes there could be a pick-up in FPSO awards next year, with between 12 and 15 awards likely to be placed by various oil majors. Under EMA's high-case scenario, it predicts between 13 and 17 FPSO awards could take place each year up until 2022, assuming an oil price of between $70 to $90 per barrel.

Source: Upstream Online

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INDUSTRY HEADLINES

OFFSHORE: Wind in sails for Brazil floater market

Demand for floating production, storage and offloading vessels in Brazil is on the rise again and contractors are bullish this wave of activity will endure, as state-controlled company Petrobras leads the way with a series of new requirements on the horizon. After a few years of idleness due to the oil price meltdown and the Car Wash corruption probe, the market outlook for FPSOs in Brazil is looking brighter, with many floater specialists paying close attention to potential future developments in the country.

Source: Upstream Online

HEAVY ENGINEERING: Chinese yards start to invest in technology for FSRU vessels

A handful of Chinese yards have invested in technologies that can be applied to the fabrication of floating storage and regasification units and potentially to floating liquefied natural gas units. The yards — including Hudong Zhonghua, Dalian Shipbuilding Industry Corporation, CIMC Raffles and Wison Offshore and Marine — have started with FSRUs, as the topsides technology is less complex than on FLNG units, and there is expected to be more demand for FSRUs than FLNG units in the future.

Source: Upstream Online