

Specifications Guide

Europe And Africa Refined Oil Products

Latest update: November 2020

Definitions of the trading locations for which Platts publishes daily indexes or assessments	2
LPG	4
Gasoline	7
Naphtha	9
Jet fuel	11
ULSD	13
Gasoil	16
Fuel oil	18
Feedstocks	23
Revision history	26

DEFINITIONS OF THE TRADING LOCATIONS FOR WHICH PLATTS PUBLISHES DAILY INDEXES OR ASSESSMENTS

The following specifications guide contains the primary specifications and methodologies for Platts refined oil products assessments throughout Europe and Africa. All the assessments listed here employ Platts Assessments Methodology, as published at https://www.spglobal.com/platts/plattscontent/_assets/_files/en/our-methodology/methodology-specifications/platts-assessments-methodology-guide.pdf.

These guides are designed to give Platts subscribers as much information as possible about a wide range of methodology and specification questions.

This guide is current at the time of publication. Platts may issue further updates and enhancements to this guide and will announce these to subscribers through its usual publications of record. Such updates will be included in the next version of this guide. Platts editorial staff and managers are available to provide guidance when assessment issues require clarification.

Shipping considerations

Bids: For the cargo assessment processes bids may be expressed with a specific location. Bids with excessive limitations – whether expressed or implied – may be deemed atypical and not considered for assessment purposes.

The name of the buyer and the location chosen set the conditions for any potential counterparty considering trading. The implied set conditions for a CIF bid include:

Up front conditions Conditions to be met

Name of the buyer	Ship must meet vetting conditions of buyer
Volume	Volume delivered must match volume requested plus/minus normal operational tolerances (in cargos this tolerance is commonly 10% and in barges 5%; tolerance is usually specified at time of bid, offer or trade)

Port	Ship must meet physical limitations of port, e.g., draft, beam, etc. Ship must also meet conditions set by country of destination.
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Offers: Offers may be made into a specific location or to meet a broad area. CIF offers may be made with a named or unnamed ship.

Up front conditions Conditions to be met

Name of Ship	Buyer to determine if ship is acceptable to its vetting department
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Unnamed ship

Seller has the responsibility to declare its commitment to meet either the vetting requirement of any buyer or conversely to declare up front how many ship vettings the seller is confident the ship will meet. Platts standard requires a seller name at least 3 relevant oil majors.

Please note that offers made with ships that have restrictions limiting the number of potential buyers would be considered atypical and not used in the assessment process.

Platts will also monitor vetting to ensure that ships are not rejected because of commercial considerations but only because of internal and consistently applied company standards.

Cargo Nomination Procedure

In all European CIF refined oil product cargo bids, offers and transactions, Platts guidelines require that the seller should narrow the five day delivery range to a three day delivery range by the earliest of five clear calendar or three clear working days before the first day of the narrowed delivery range, whichever falls sooner. Platts also expects the seller to nominate the performing vessel by the earliest of either five clear calendar or three clear working days. For CIF Mediterranean gasoil cargo nominations, the vessel nomination and the narrowing of the delivery range should be made by the earliest of seven clear calendar or five clear working days before the first day of the actual delivery range, again, whichever falls sooner. Platts FOB

Northwest European and FOB Mediterranean oil product cargo assessments reflect market activity where the seller nominates the loading terminal 7 calendar days ahead of the first day of the 5-day laycan. Additionally, Platts reflects cargoes which stipulate the buyer must nominate the vessel 7 calendar days ahead of the first day of the original 5-day laycan. Buyer must also narrow the 5-day laycan to a 3-day laycan at the same time. On barges, the buyer must give the seller 48 clear working hours' notice of the date required.

In all EMEA products markets, nomination must be completed on a working day. If the nomination would otherwise fall on a weekend or a UK bank holiday, then the nomination must be submitted before close of the previous working day.

CIF transactions

A CIF buyer has the right to request a deviation of the ship to another port, provided the ship-owner has granted, or has the ability to grant, the deviation to the charterer. Any incremental expenses associated with the deviation are borne by the buyer as he/she is initiating the request for the deviation.

All charter party options should be passed from a seller to the buyer in the form that they exist in the original Charter Party contract. Charges incurred because of the deviation must be transparent and be granted at cost and in line with normal market practices. The seller should not impose a fee for passing the Charter Party (CP) options.

Quantity and Quality

Platts FOB and CIF assessments reflect trades where the quality and quantity are established at loadport, except in cases of fraud and/or manifest error. This does not preclude a buyer from potentially having a valid claim if the original test of a loadport sample is proven to be inaccurate because the results of the original test cannot be repeated and/or reproduced within reasonable parameters through subsequent re-testing of the original loadport sample. Platts considers retesting of retained samples a necessary step to determine if the original test was fully reflective of the quality delivered, and sellers should not reject such requests for retesting. Buyers' requests to re-test the load port sample should be made only in cases where later testing differs from the load port test beyond repeatability and/or reproducibility.

Country of Origin

In its European CIF refined product cargo assessment processes, Platts typically reflects oil of international origin. Platts considers bids, offers and transactions for delivery into the referenced port where the material is sourced from a different country, unless the seller commits to meeting any and all additional costs caused by supplying oil from the same referenced country. For example, a CIF bid basis any Italian port implies that any potential seller will not supply from Italy. Similarly, a CIF offer basis any French port implies the oil will not be supplied from France. A seller would not be expected to bear additional and demonstrable costs emanating from a buyer's deviation request into a different port/country other than the basis.

Ship-to-ship transfers

Platts CIF refined product cargo assessments in Northwest Europe and in the Mediterranean reflect offers where the seller has the option to make final delivery on a vessel that had

received its cargo on a ship-to-ship basis.

Should the seller elect to deliver a CIF cargo that has loaded on a ship-to-ship basis, the binding quantity and quality would be established on a ship's composite basis in the final delivering vessel.

The seller may not unreasonably withhold a buyer's request for title to transfer after the separation of the vessels involved in the ship-to-ship transfer.

Furthermore, Platts reflects offers which grant the buyer the option to request delivery into a vessel, rather than into a port. Under these circumstances the quantity and quality as title and risk will pass in line with typical practices in CIF transactions.

Should a seller elect to deliver on a vessel that loaded its cargo on a ship-to-ship basis, it should provide vessel nomination and narrow laycan by the earliest of seven clear calendar or five clear working days before the first day of the actual delivery range. In line with market standard, this guidance would not apply to performing vessels which have completed loading prior to being put forward to buyers for nomination.

Location

Platts publishes assessments for several locations on a FOB and CIF basis. The location parameters for each assessment are published in Section VII of this guide.

Barges

For FOB North West Europe barges across all products, the buyer must give the seller 48 clear working hours' notice of the date of loading required.

Platts FOB barge assessments reflect specified loading

locations. Platts may publish bids, offers and trades outside of these locations, if appropriate, and these may be normalized to the standard loading location.

Platts reflects barge deals where the buyer has the right to request alternative loading mechanisms after the seller nominates a loading terminal. These alternative loading terms may include pumpover, inter tank transfer or cargo loading. The seller should not unreasonably withhold these requests and any alternative loading basis should be granted at operational cost only to the buyer

Platts FOB barge assessments, basis ARA, reflect bids and offers where the buyer commits to load the contractual volumes as per the agreed volume at the time of trade, where the quantity delivered to a buyer is measured in line with the typical practice established at the nominated terminal at the loading port. Platts understands the typical method of measuring quantity in the ARA barge market uses the terminal's shore tank results, where quantity is metered between the shore tank and the receiving barge's flange. Platts assessment processes reflect these standard processes and conventions.

Any potential for short loading -beyond the normal operational tolerance levels- for logistical reasons, such as water level issues on inland waterways, must be agreed with the seller prior to the commencement of loading.

The seller retains the option on whether to accept or reject the buyers request to short load. Any buyer who wishes to retain an option to short load barges due to water level concerns on inland waterways must express this in their bid. Bids with such stipulations will be considered atypical and may be subject to normalization.

LPG

Assessment	CODE	Mavg	Wavg	CONTRACT BASIS	LOCATION	DELIVERY PERIOD	MIN SIZE	MAX SIZE	CURRENCY	UOM	CONV	TO UOM
Propane CIF NWE Large Cargo	PMABA00	PMUEE03	AABEY00	CIF	NWE	10-25 days forward	8,500	23,100	US \$	metric ton	5.21	cts/gal
Propane CIF NWE 7kt+ Month to Date	PMUDK00	-	AABFB00	CIF	NWE				US \$	metric ton	5.21	cts/gal
Propane FOB NWE Seagoing	PMABB00	PMUEA03	AABEU00	FOB	NWE	5-15 days forward	1,000	3,600	US \$	metric ton	5.21	cts/gal
Propane FOB NWE Seagoing Month to Date	PMUDI00	-	-	FOB	NWE				US \$	metric ton	5.21	cts/gal
Propane ARA CIF Large Swap Mo01	PMABU00	-	-	CIF	ARA				US \$	metric ton	5.21	cts/gal
Propane ARA CIF Large Swap Mo02	PMUDH00	-	-	CIF	ARA				US \$	metric ton	5.21	cts/gal
Propane ARA CIF Large Swap Qr01	PMUDE00	-	-	CIF	ARA				US \$	metric ton	5.21	cts/gal
Propane FOB ARA	PMAAS00	PMUEB03	-	FOB	ARA	3-10 days forward	420	1,100	US \$	metric ton	5.21	cts/gal
Propane FCA ARA	PMABH00	PMUEC03	AABEW00	FCA	ARA	3-10 days forward	20	500	US \$	metric ton	5.21	cts/gal
Propane W Med CIF 7000+ MT	PMABE00	PMUEH03	-	CIF	West Med (basis Lavera)	10-25 days forward	7,000	+	US \$	metric ton	5.21	cts/gal
Propane W Med FOB Ex-Ref/Stor	PMABC00	PMUEF03	AABEZ00	FOB	West Med (basis Lavera)	5-15 days forward		3,000	US \$	metric ton	5.21	cts/gal
Propane W Med FCA Ex-Ref/Stor	PMABJ00	PMUEG03	AABFA00	FCA	West Med (basis Lavera)	3-10 days forward	20	500	US \$	metric ton	5.21	cts/gal
Butane CIF NWE Seagoing	PMAAJ00	PMUDX03	AABER00	CIF	NWE	5-15 days forward	1,000	3,600	US \$	metric ton	4.53	cts/gal
Butane CIF NWE Large Cargo	PMAAK00	PMUDY03	AABES00	CIF	NWE	10-25 days forward	8,000	12000	US \$	metric ton	4.53	cts/gal
Butane FOB NWE Seagoing	PMAAL00	PMUDU03	AABE000	FOB	NWE	5-15 days forward	4,000	6,000	US \$	metric ton	4.53	cts/gal
Butane FOB ARA	PMAAC00	PMUDV03	AABEP00	FOB	ARA	3-10 days forward	420	1,100	US \$	metric ton	4.53	cts/gal
Butane FCA ARA	PMABI00	PMUDW03	AABEQ00	FCA	ARA	3-10 days forward	20	500	US \$	metric ton	4.53	cts/gal
Butane W Med FOB Coaster	PMAAM00	PMUDZ03	AABET00	FOB	West Med (basis Lavera)	5-15 days forward	4,000	6,000	US \$	metric ton	4.53	cts/gal
Butane CIF Morocco	ABTMA00	ABTMA03	ABTMA04	CIF	Mohammedia	45-60 days	44,000	+	US \$	metric ton	4.53	cts/gal

LPG

Propane CIF NWE Large Cargo (PMABA00): This assessment reflects the value of refrigerated cargoes for delivery 10-25 days from the date of publication, with values normalized to reflect the mean of the delivery period. The assessment reflects full or part-cargoes of between 8,500-23,100 mt, meeting Braefoot Bay commercial propane specifications. The assessment is CIF basis Flushing, but deliveries into other ports in NWE will be reflected. Bids, offers and transactions into relevant Scandinavian ports may also be considered in the assessment. All deliveries to ports other than Flushing may be normalized to this location.

Propane CIF Large Cargoes Monthly Rolling Average (PMUDK00): This value reflects the month-to-date average of Platts daily Propane CIF NWE Large Cargo assessments. An average is calculated using daily data points published on a

rolling basis during the month.

Propane FOB NWE Seagoing (PMABB00): This assessment reflects the value of pressurized vessels loading 5-15 days from the date of publication, with values normalized to the mean of the loading period. The assessment reflects coasters ex-refinery/storage with full cargoes of between 1,000-3,600 mt with a minimum content of 93% C3s and a maximum of 30% olefins including both field and refinery grades. The assessment is FOB basis Tees, but loadings from other ports in NWE will be reflected. Bids, offers and transactions from relevant Scandinavian ports may also be considered in the assessment.

Propane FOB Seagoing Monthly Rolling Average (PMUDI00): This value reflects the month-to-date average of Platts daily Propane FOB NWE Seagoing assessments. An average is calculated using daily data points published on a rolling basis

during the month.

Propane FOB ARA (PMAAS00): This assessment reflects the value of pressurized barges loading 3-10 days from the date of publication, with values normalized to the mean of the loading period. The assessment reflects barges ex-refinery/storage with full cargoes of between 420-1,100 mt, with a minimum content of 95% C3s and a maximum of 30% olefins including both field and refinery grades. The assessment is FOB basis ARA.

Propane FCA ARA (PMABH00): This assessment reflects the value of pressurized material loading 3-10 days from the date of publication, with values normalized to the mean of the loading period. The assessment reflects railcars and trucks ex-refinery/storage with parcels of between 20-500 mt, with a minimum content of 95% C3s and a maximum of 30% olefins including both field and refinery grades. The assessment is FCA basis ARA.

Propane W Med CIF 7000+ MT (PMABE00): This assessment reflects the value of refrigerated cargoes for delivery 10-25 days from the date of publication, with values normalized to the mean of the delivery period. The assessment reflects full cargoes of at least 7,000 mt, meeting Sonatrach commercial propane specifications. The assessment is CIF basis Lavera, but deliveries into other ports in the West Mediterranean may be reflected. Trades basis other locations are normalized to a Lavera basis by analyzing freight costs.

Propane W Med FOB Ex-Ref/Stor (PMABC00): This assessment reflects the value of pressurized vessels loading 5-15 days from the date of publication, with values normalized to the mean of the loading period. The assessment reflects coasters ex-refinery/storage with cargoes of up to 3,000 mt with a minimum content of 93% C3s and a maximum of 30% olefins including both field and refinery grades. The assessment is FOB basis Lavera. Platts reflects bids where the buyer is willing to load in a different location to the basis port, subject to potential freight compensation. Trades basis other locations are normalized to a Lavera basis by analyzing freight costs. Restrictive bids basis only Lavera will not be considered for assessment.

Propane W Med FCA Ex-Ref/Stor (PMABJ00): This assessment reflects the value of pressurized material loading 3-10 days from the date of publication, with values normalized to the mean of the loading period. The assessment reflects railcars and trucks ex-refinery/storage with parcels of between 20-500 mt with a minimum content of 93% C3s and a maximum of 30% olefins including both field and refinery grades. The assessment is FCA basis Lavera.

Butane CIF NWE Seagoing (PMAAJ00): This assessment reflects the value of pressurized vessels loading 5-15 days from the date of publication, with values normalized to the mean of the delivery period. The assessment reflects coasters ex-refinery/storage with cargoes of between 1,000-3,600 mt, of mixed butane with a maximum content of 85% normal butane, 49% isobutane and 30% olefins including both field and refinery

grades. The assessment covers an area represented by a triangle, with Wilhelmshaven (Germany), Teesside (UK) and Le Havre (France) as its three corners, and also including Milford Haven, Fawley and Grangemouth.

Butane CIF NWE Large Cargo (PMAAK00): This assessment reflects the value of refrigerated cargoes for delivery 10-25 days from the date of publication, with values normalized to the mean of the delivery period. The assessment reflects full or part-cargoes of between 8,000-12,000 mt, meeting Braefoot Bay commercial mixed butane specifications, with a typical split of 70% normal butane and 30% isobutane. Pure normal butane and isobutane are not assessed by Platts in Europe, although pure normal butane may be considered for normalization in the assessment. The assessment is CIF basis Rotterdam, but deliveries into other ports in NWE will be reflected. Bids, offers and transactions into relevant Scandinavian ports may also be considered in the assessment. All deliveries to ports other than Rotterdam may be normalized to this location. Previously, Platts described this assessment as Butane CIF Large Cargoes or Butane 3kt+.

Butane FOB NWE Seagoing (PMAAL00): This assessment reflects the value of pressurized vessels loading 5-15 days from the date of publication, with values normalized to the mean of the loading period. The assessment reflects coasters ex-refinery/storage with full or part-cargoes of between 4,000-6,000 mt – with alternative cargo sizes normalized back to the basis volume of 4,000 mt – of mixed butane with a maximum content of 85% normal butane, 49% isobutane and 30% olefins including both field and refinery grades. The assessment reflects FOB loadings in NWE. Bids, offers and transactions from relevant Scandinavian ports may be considered in the assessment.

Butane FOB ARA (PMAAC00): This assessment reflects the value of pressurized barges loading 3-10 days from the date of publication, with values normalized to the mean of the loading period. The assessment reflects barges ex-refinery/storage with full cargoes of between 420-1,100 mt with a maximum content

of 85% normal butane, 49% isobutane and 10% olefins including both field and refinery grades. The assessment is FOB basis ARA.

Butane FCA ARA (PMABI00): This assessment reflects the value of pressurized material loading 3-10 days from the date of publication, with values normalized to the mean of the loading period. The assessment reflects railcars and trucks ex-refinery/storage with parcels of between 20-500 mt with a maximum content of 85% normal butane, 49% isobutane and 10% olefins including both field and refinery grades. The assessment is FCA basis ARA.

Butane FOB West Med Coaster (PMAAM00): This assessment reflects the value of pressurized vessels loading 5-15 days from the date of publication, with values normalized to the mean of the loading period. The assessment reflects coasters ex-refinery/storage with full or part-cargoes of between 4,000- 6,000 mt – with alternative cargo sizes normalized back to the basis volume of 4,000 mt -- of mixed butane with a maximum content of 85% normal butane, 49% isobutane and 30% olefins including both field and refinery grades. The assessment is FOB basis Lavera. Platts reflects bids where the buyer is willing to load in a different location to the basis port, subject to potential freight compensation. Trades basis other locations are normalized to a Lavera basis by analyzing freight costs. Restrictive bids basis only Lavera will not be considered for assessment. Platts reflects trade in which an EUR1 certificate is provided by the seller to the buyer. Platts may publish bids, offers and trades for cargoes that do not stipulate having an EUR1 certificate, but these may be subject to normalization back to the standard.

Butane CIF Morocco (ABTMA00): The Butane CIF Morocco assessment reflects a specification in line with the Platts Mont Belvieu, Texas, butane assessment. It reflects refrigerated cargoes with a minimum size of 44,000 mt for delivery 45-60 days from the date of publication, with value reflecting the mean of the delivery period, into Mohammedia, Morocco. The assessment is calculated as a freight netforward of the Mont Belvieu pipeline assessment (AAWUF00). It also uses a 44,000mt

US Gulf Coast FOB waterborne premium (AAXIQ00), freight between Houston and Mohammedia, Morocco, and a price normalization between the Houston and London Market on Close assessment process timestamps reflected by the change in front-month ICE Brent. The Houston-Mohammedia freight component is derived from the Houston-Flushing 44,000 mt freight assessment (AAXIQ00) and adjusted to account for the difference in delivery location.

VLGC freight: Platts assesses VLGC freight Houston-NWE (AAXIQ00) and VLGC freight Houston-Morocco (LPHMA00). Please refer to the Freight methodology and specifications guide for details of these assessments: https://www.spglobal.com/platts/plattscontent/_assets/_files/en/our-methodology/methodology-specifications/freight-methodology.pdf

GASOLINE

Assessment	CODE	Mavg	CONTRACT BASIS	LOCATION	DELIVERY PERIOD	MIN SIZE	MAX SIZE	CURRENCY	UOM	CONV
Gasoline Prem Unleaded 10ppmS FOB Med Cargo	AAWZA00	AAWZA03	FOB	Med (basis Italy)	10-25 days forward	25,000	30,000	US \$	metric ton	8.33
Gasoline Prem Unleaded 10ppmS CIF Med Cargo	AAWZB00	AAWZB03	CIF	Med (basis Genoa/Lavera)	10-25 days forward	25,000	30,000	US \$	metric ton	8.33
Gasoline 10ppmS CIF NWE Cargo	AAXFQ00	AAXFQ03	CIF	NWE (basis Thames)	10-25 days forward	9,000	11,000	US \$	metric ton	8.33
West Africa Cargoes FOB NWE	AAKUV00	AAKUV03	FOB	Amsterdam	10-25 days forward	30,600	37,400	US \$	metric ton	-
West Africa Cargoes CIF West Africa	AGNWC00	AGNWC03	CIF	West Africa	10-25 days forward	30,600	37,400	US \$	metric ton	-
Gasoline Eurobob FOB AR Barge	AAQZV00	AAQZV03	FOB	AR	3-15 days forward (Monday-Tuesday) 5-15 days forward (Wednesday-Friday)	1,000	5,000	US \$	metric ton	8.33
Gasoline Eurobob E10 FOB AR Barge	AGEFA00	AGEFA03	FOB	AR	3-15 days forward (Monday-Tuesday) 5-15 days forward (Wednesday-Friday)	1,000	5,000	US \$	metric ton	8.33
Gasoline Prem Unleaded 10ppmS FOB AR Barge	PGABM00	PGABM03	FOB	AR	3-15 days forward (Monday-Tuesday) 5-15 days forward (Wednesday-Friday)	1,000	5,000	US \$	metric ton	8.33
Gasoline Reg Unleaded 98 FOB AR Barges	AAKOD00	AAKOE00	FOB	AR	3-15 days forward (Monday-Tuesday) 5-15 days forward (Wednesday-Friday)	1,000	5,000	US \$	metric ton	8.33
Reformat FOB AR Barge	AAAXPM00	AAAXPM03	FOB	AR	3-15 days forward (Monday-Tuesday) 5-15 days forward (Wednesday-Friday)	3,000	5,000	US \$	metric ton	-
Reformat FOB AR Barge Eur/mt	AAAXPN00	AAAXPN03	FOB	AR	3-15 days forward (Monday-Tuesday) 5-15 days forward (Wednesday-Friday)	3,000	5,000	Euro	metric ton	-

Gasoline

Seasonal Changes: The switch in gasoline quality from summer to winter grade and vice-versa may have a significant impact on gasoline prices in Europe. Platts reflects winter specification material for physical loading or delivery up until and inclusive of March 31, after which summer grade only is reflected. Platts reflects summer grade up until and inclusive of September 30, after which winter grade only is reflected. These dates may be subject to change, depending on observed implementation of seasonal switching in the market. Platts announces a phase-in period for the summer and winter grades on cargoes and barges, in which the incoming seasonal grade is given an increasing weighting in the assessment. Platts does not reflect seasonal specification changes in its West Africa gasoline cargo assessments.

For example: In the gasoline cargo market on March 7 2019, Platts began reflecting summer grades of gasoline on a prorated basis in the Northwest Europe and Mediterranean cargo assessments, with March 11 being the first day on which summer gasoline could be bid or offered and March 15 being the last day on which winter gasoline could be bid or offered. The last day

on which winter was reflected in the assessment was March 21. In the basis Amsterdam Rotterdam gasoline barge market, on March 18, 2019 Platts started reflecting summer grades of gasoline on a pro-rated basis, with March 21 being the first day on which summer gasoline could be bid or offered. March 22 was the last day on which winter could be bid or offered. The last day on which winter was reflected in the assessment was March 26.

Operational Tolerance: Platts reflects bids, offers and trades that limit a counterparty's price exposure to operational tolerance. Operational tolerance is limited to plus or minus 10% of the transacted size for cargoes and 5% for barges. For example, a barge size of 3,000 mt would have a maximum operational tolerance of plus or minus 150 mt. When pricing on a floating basis Platts reflects FOB and CIF cargoes where the operational tolerance prices after the completion of discharge/issuance of bill of lading, and barges where the operational tolerance prices after the issuance of the bill of lading.

Premium gasoline 10PPM Cargoes FOB Med (AAWZA00): The FOB Mediterranean cargo assessment reflects EN 228 gasoline meeting Italian, French and Spanish specifications.

The Research Octane Number (RON) is 95 and the Motor Octane Number (MON) is 85. The reference density is 0.755 kg/liter. The aromatics limit is a maximum of 35%. Cargo assessments reflect parcels of 25,000 to 30,000 mt, though cargoes of up to 33,000 mt may be considered. The assessment reflects cargoes loading FOB basis Santa Panagia Bay or Sarroch. Loadings taking place in other Med locations may be considered in the MOC assessment process and normalized to reflect value basis Santa Panagia Bay.

Platts currently publishes bids and offers for the following locations: Croatia: Rijeka; Cyprus: VTT Vasiliko; Greece: Aspropyrgos, Thessaloniki; Italy: Falconara, Genoa, Milazzo, Santa Panagia Bay, Sarroch; Malta: Malta; Morocco: Tangier Med; Spain: Barcelona, Castellon. Platts also reflects sales of gasoline that occur across the berth at jetties within the Platts Premium gasoline 10PPM Cargoes FOB Med assessment. Should the seller elect to deliver a cargo that has loaded across the jetty, the binding quantity and quality would be established on a ship's composite basis in the final delivering vessel. The assessment reflects material loading 10-25 days from date of publication, with value normalized to reflect the mean of the delivery period.

The reference Reid Vapor Pressure [RVP] for Platts winter specification 10 ppm gasoline FOB and CIF Mediterranean cargo assessments is a maximum RVP of 80 Kilopascals (kPa). For summer grade, Platts reflects a maximum of 60 kPa.

Premium gasoline 10PPM Cargoes CIF Med (AAWZB00):

The CIF Med gasoline assessment is a freight netforward to the FOB Med assessment, using the Platts cross-Med clean tanker assessment. Effective January 2, 2020 the Worldscale flat rate used to calculate the net-forward formula for the CIF Mediterranean premium gasoline 10 ppm cargo is \$6.99/mt, taking into account the following routes: Lavera-Beirut, Augusta-Barcelona and Alexandria-Bizerte. The assessment reflects CIF basis Genoa and Lavera.

Premium gasoline 10PPM Cargoes CIF NWE (AAXFQ00): The CIF NWE cargo assessment reflects EN 228 material with a 95 RON, 85 MON and a density of 0.755 kg/l. The maximum sulfur content is 10ppm. The aromatics limit is a maximum of 35%.

The assessment reflects material with a maximum oxygenate content of 0.9% by mass, and a maximum evaporation (E70) of 43% in winter specification material and 41% in summer specification material. Offers with a higher evaporation (E70) level should state the maximum limit.

The assessment reflects cargoes of 10,000 mt, with a typical operational tolerance of 10%. Larger cargo sizes may be considered in the MOC assessment process but normalized back to the reference cargo size. The assessment reflects cargoes delivered CIF basis Thames with normal charterparty options within Northwest Europe. The assessment reflects the value of cargoes for delivery 10-25 days from the date of publication, with value normalized to reflect the mean of the delivery period.

In the absence of spot liquidity, Platts may consider differentials to other gasoline markets, such as Eurobob Gasoline Barges FOB AR or Premium Gasoline 10PPM Barges FOB AR, as well as prevailing Cross-UK Continent freight rates. The reference Reid Vapor

Pressure [RVP] for the Platts winter specification 10 ppm gasoline CIF NWE cargo assessment is a maximum RVP of 90 Kilopascals (kPa). For summer grade, Platts reflects a maximum of 60 kPa.

Platts currently publishes bids and offers for the following locations: UK: Terminal Plymouth, Tees, Tees – Vopak Terminal, Thames, Thames – Vopak.

West Africa Gasoline FOB Northwest Europe (AAKUV00): The assessment reflects gasoline with a maximum of 500 ppm sulfur, minimum 91 RON, a maximum RVP of 9 Pounds per Square Inch (PSI) and a maximum density of 0.735 kg/l at 60 degrees Fahrenheit. In its assessment process, Platts will publish bids and offers for other merchantable gasoline grades appropriate for West African delivery, and normalize these back to the reference specification. The FOB NWE assessment is basis FOB Amsterdam, with bids and offers from other locations in NWE normalized back to Amsterdam.

Platts currently publishes bids and offers for the following locations: Belgium: Antwerp; Netherlands: Amsterdam, Rotterdam.

The FOB NWE cargo assessment reflects cargoes of 34,000 mt plus/minus 10% operational tolerance with other cargo sizes also considered for assessment purposes but normalized back to the reference cargo size.

West Africa Gasoline CIF West Africa (AGNWC00): The CIF West Africa assessment is a freight netforward from the FOB NWE assessment, using a basket of two Worldscale flat rates, Amsterdam-Lome and Amsterdam-Lagos. This CIF assessment is calculated by multiplying the Worldscale flat rate by the Platts daily tanker rate assessment for UKC-West Africa 37,000 mt cargoes (PFAMH00). Effective January 2, 2020, the Worldscale flat rate used to calculate the net-forward formula for the CIF West Africa assessment is \$17.63/mt.

Barges: The assessment reflects material for loading 3-15 (Monday to Tuesday) or 5-15 (Wednesday through Friday) days from date of publication, with value normalized to reflect the

mean value of the loading period. Gasoline barges reflect a basis location of Amsterdam/Rotterdam (AR). Loading nominations at Antwerp or Terneuzen will also be reflected. Where Antwerp or Terneuzen are nominated, any demonstrable incremental costs incurred by the buyer should be borne by the seller.

Eurobob Gasoline Barges FOB AR (AAQZV00): The barge assessment reflects a blendstock that after the addition of 4.8% maximum of ethanol meets EN 228 gasoline. A maximum oxygenate content of 0.9% by weight is reflected. The assessment reflects parcels of 1,000 to 5,000 mt.

Gasoline Eurobob E10 FOB AR Barge (AGEFA00): The barge assessment reflects a blendstock that after the addition of 9.7% maximum of ethanol meets EN 228 gasoline. The assessment reflects parcels of 1,000 to 5,000 mt.

Premium Gasoline 10PPM Barges FOB AR (PGABM00): The barge assessment reflects EN 228 gasoline with a 95 RON, 85 MON and a reference density of 0.755 kg/l. The maximum sulfur content is 10ppm. The aromatics limit is a maximum of 35%. The assessment reflects parcels of 1,000 to 5,000 mt.

98 RON Gasoline 10PPM Barges FOB AR (AAKOD00): The barge assessment reflects EN 228 gasoline with a 98 RON, 88 MON and a density of 0.755 kg/l. The maximum sulfur content is 10ppm. The aromatics limit is a maximum of 35%. The assessment reflects parcels of 1,000 to 5,000 mt. This assessment is typically established as a differential to Eurobob Gasoline Barges FOB AR.

Reformate Barges FOB AR (AAXPM00): The barge assessment reflects material with a minimum 99 RON, minimum 0.810 kg/l density, a maximum sulfur content of 3ppm, maximum 38 kPa Vapour Pressure, a maximum 2% Benzene and a minimum 65% aromatics limit. Bids and offers for different merchantable grades of reformate will be published in the Platts MOC assessment process and may be normalized to reflect the reference specification. The assessment reflects parcels of 3,000 to 5,000 mt.

NAPHTHA

Assessment	CODE	Mavg	CONTRACT BASIS	LOCATION	DELIVERY PERIOD	MIN SIZE	MAX SIZE	CURRENCY	UOM	CONV
Naphtha CIF NWE Cargo	PAAAL00	PAAAL03	CIF	NWE (basis Rotterdam)	10-25 days forward	12,500	36,000	US \$	metric ton	8.9
Naphtha FOB Med Cargo	PAAAI00	PAAAI03	FOB	Med (basis Alexandria)	10-25 days forward	27,500	27,500	US \$	metric ton	8.9
Naphtha CIF Med Cargo	PAAAH00	PAAAH03	CIF	Med (basis Lavera)	10-25 days forward	27,500	27,500	US \$	metric ton	8.9
Naphtha FOB Rdam Barge	PAAAM00	PAAAM03	FOB	ARA (basis Rotterdam)	3-15 days forward (Monday-Tuesday) 5-15 days forward (Wednesday-Friday)	1,000	5,000	US \$	metric ton	8.9

Naphtha

Naphtha Cargoes CIF NWE (PAAAL00): The Naphtha Cargoes CIF NWE assessment reflects open specification material with a minimum 65% paraffin content and a typical density of 0.69 to 0.735 kg/l. Other qualities may be taken into account when traded but these would be normalized to Platts typical specifications. Likewise, naphtha with larger than normal mercury levels may not be considered in the assessment process. The maximum mercury reflected in the assessment is 5 parts per billion. Platts also reflects material with a maximum MTBE content of 50 ppm and a total oxygenate content of 100 ppm. Platts reflects naphtha cargoes with an organic chloride limit of 3ppm, with a total chloride limit of 10 ppm.

PLATTS CIF NWE NAPHTHA CARGO SPECS

Specific Gravity at 15 C	max 0.735 g/ml
Reid Vapor Pressure	max 12.5 psi
Colour	min +20 Saybolt
Initial Boiling Point	min 30 deg C
Final Boiling Point	max 180 deg C
Paraffins pct vol	min 65 %
Olefins pct vol	max 1 %
Naphthenes + aromatics pct vol	balance
Sulfur	max 500 ppm
H2S	max 10 ppm
Lead	max 50 ppb
Organic chlorides	max 3 ppm
Total chlorides	max 10 ppm
MTBE	max 50 ppm
Total Oxygenate	max 100 ppm
Mercury	max 5 ppb
Mercaptan sulphur	to be reported

The physical assessment reflects four cargo sizes: 12,500 mt, 24,000 to 28,000 mt, 28,000 to 32,000 mt and 32,000 to 36,000 mt, full or part-cargo. The most competitive (i.e. lowest value) of the four cargo sizes will be reflected in the final published Naphtha Cargoes CIF NWE assessment. The assessment reflects naphtha for delivery 10-25 days forward from date of publication, with value reflecting the mean value of the delivery period. By reflecting four commonly traded cargo sizes, Platts seeks to ensure its assessment reflects a broad cross-section of the European spot market.

Operational Tolerance: Platts reflects European naphtha cargo bids, offers and trades that limit a counterparty's price exposure to operational tolerance. For cargoes of 12,500 mt, Platts will reflect European naphtha cargo bids, offers and trades where the volume operational tolerance is plus or minus 10%. For 24,000 to 28,000 mt, 28,000 to 32,000 mt and 32,000 to 36,000 mt cargoes, Platts reflects CIF cargo bids, offers and trades that value the operational tolerance volume after discharge on a floating price basis, on the mean of the Platts naphtha CIF NWE cargo assessment over five working days after completion of discharge (COD), plus or minus a differential. For example, in a bid for 24,000 to 28,000 mt, Platts would typically publish a bid of 24,000 mt on a fixed price basis, with an operational tolerance of 0 to 4,000 mt as a floating price on the mean of the Platts Naphtha Cargoes CIF NWE assessment five working days after COD, plus or minus a differential.

The assessment reflects cargoes delivered CIF basis Rotterdam. When part-cargoes are delivered CIF basis Rotterdam, neither

the buyer nor the seller should be disadvantaged by the seller's decision not to deliver a full cargo. A seller is expected to provide a vessel whose size is commensurate with typical trade patterns in the market and one that meets the receiver's reasonable shipping and vetting requirements. Platts has observed that Medium Range tankers are the largest-sized vessels commonly used in the Northwest European naphtha market. If a seller chooses to perform on a trade by using a larger vessel, that will be subject to meeting the receiver's reasonable shipping and vetting requirements. At the same time, a buyer should not unreasonably refuse this option.

Platts reflects demurrage rates whereby the buyer's exposure to demurrage should not exceed the lesser of either the normal associated demurrage for a vessel size commensurate to the traded volume, or the charterparty for the actual nominated vessel. Commensurate demurrage rates for part-cargo volumes should be based on prevailing market rates to normal destinations in NWE, even when these are outside the ARA range. Platts reflects bids and offers with typical charterparty options including ARA, the Le Havre-Hamburg range and East Coast UK. Platts only reflects offers of Tuapse-loading naphtha cargoes when the seller commits to deliver on a CIF basis, but with the quantity established by means of a ship's composite at disport.

Platts European naphtha assessments include bids, offers and transactions where the seller has committed to meeting the receiver's reasonable shipping and vetting requirements. Assessments also reflect bids, offers and transactions where

the buyer requests delivery into a ship, provided the vessel is of widespread acceptability.

Platts assessments reflect trades where a seller may substitute vessels nominated to a buyer up until one clear working day before the first day of the narrowed three-day delivery period. As an example, for a laycan narrowed by a seller to Wednesday, June 24 until Friday, June 26, a seller would be permitted to substitute the vessel up until the close of business on Monday, June 22. Platts also expects counterparties to be reasonable when exceptional circumstances may require later substitutions, and also in managing a buyer's request to change discharge orders. A nominated cargo needs only to meet the specifications defined in Platts methodology and those expressed by the market maker in the MOC. Re-nominated vessels need to be able to meet the logistical requirements of the originally agreed discharge port.

Platts Naphtha Cargoes CIF NWE assessments reflect bids, offers and transactions where the vessel is guaranteed to have

an inert gas system (IGS).

Naphtha Cargoes FOB Med (PAAAI00): The Naphtha Cargoes FOB Med assessment reflects open specification material in line with the CIF NWE cargo assessment. The assessment reflects 27,500 mt cargoes, loading FOB basis Alexandria 10-25 days forward from the date of publication, with value reflecting the mean of the delivery period. This assessment is a netback from the CIF NWE assessment.

Effective January 2, 2020, the Worldscale flat rate used to calculate the netback formula for FOB Mediterranean naphtha cargoes is \$14.38/mt, including the additional 88 cents/mt, reflecting calculated port fees in Rotterdam. The netback rate is assessed daily using Platts UKC-Med freight assessments for 27,500 mt naphtha cargoes and the applicable Worldscale flat rate.

Naphtha Cargoes CIF Med (PAAAH00): The Naphtha Cargoes CIF Med assessment reflects open specification material in line

with the CIF NWE cargo assessment. The assessment reflects 27,500 mt cargoes, delivered CIF basis Lavera 10-25 days from the date of publication, with value reflecting the mean of the delivery period. This assessment is a netforward from the Naphtha Cargoes FOB Med assessment, based on the freight value between Alexandria and Lavera. This is calculated using the Platts cross-Med freight assessment for 27,500 mt naphtha cargoes. Effective January 2, 2020 the Worldscale flat rate used to calculate the net-forward formula for CIF Mediterranean naphtha is \$8.65/mt.

Naphtha Barges FOB ARA (PAAAM00): Barge naphtha assessments reflect the value of open specification material, with value normalized to reflect 65% minimum paraffin content. Barge assessments reflect parcels of 1,000 to 5,000 mt, loading FOB ARA, basis Rotterdam. Barge assessments reflect parcels for loading 3-15 (Monday to Tuesday) or 5-15 (Wednesday through Friday) days forward from the date of publication. The barge assessment is established through a fixed \$4/mt differential to the CIF NWE cargo assessment.

JET FUEL

Assessment	CODE	Mavg	CONTRACT BASIS	LOCATION	DELIVERY PERIOD	MIN SIZE	MAX SIZE	CURRENCY	UOM	CONV
Jet CIF NWE Cargo	PJAAU00	PJAAU03	CIF	NWE	10-25 days forward	25,000	45,000	US \$	metric ton	7.89
Jet FOB NWE Cargo	PJAAV00	PJAAV03	FOB	NWE	10-25 days forward	25,000	45,000	US \$	metric ton	7.89
Jet FOB Rdam Barge	PJABA00	PJABA03	FOB	ARA	3-15 days forward (Monday-Tuesday) 5-15 days forward (Wednesday-Friday)	2,000	5,000	US \$	metric ton	7.89
Jet FOB Med Cargo	AAIDL00	AAIDM00	FOB	Med	10-25 days forward	27,500	27,500	US \$	metric ton	7.89
Jet CIF Med Cargo	AAZBN00	AAZBN03	CIF	Med	10-25 days forward	30,000	30,000	US \$	metric ton	7.89
Jet FOB STS Lome	AJWAA00	AKWAA03	FOB	WAF	3-10 days forward	5,000	10,000	US \$	metric ton	7.89

Jet fuel

Platts European jet fuel assessments reflect standard commercial Jet-A1 specifications, as defined by UK Ministry of Defence in DEFSTAN 91-091 and the Joint Fuelling System Checklist. The UK Ministry of Defence has updated DEFSTAN 91-091 periodically and Platts reflects the latest issue. Latest DEFSTAN specifications at the time of this guide's publication are as follows: sulfur content is 0.3% maximum, density is 0.775-0.840 kg/l, flash point is 38 degrees Celsius minimum, freeze point is minus 47 degrees Celsius maximum. The Joint Fuelling System Checklist requires jet fuel to meet the more stringent requirements of DEFSTAN 91-091 and the American Society for Testing & Materials', Standard Specification D 1655-04a.

Operational Tolerance: Platts reflects bids, offers and trades that limit a counterparty's price exposure to operational tolerance. Operational tolerance is typically limited to plus or minus 10% of the transacted size for cargoes and 5% for barges. As an example, a barge size of 3,000 mt would have a maximum operational tolerance of plus or minus 150 mt. When pricing on a floating basis, Platts reflects CIF cargoes where the operational tolerance prices after the completion of discharge, and barges where the operational tolerance prices after the bill of lading.

Jet Cargoes CIF NWE (PJAAU00): This cargo assessment reflects standard, tradable parcels with a typical cargo size between of

25,000 and 45,000 mt are reflected. Platts takes into account spot deliveries made in full or part-cargoes at seller's option. The assessment is normalized to 30,000 mt full or part-cargo, seller's option, delivered basis a par port within NWE where the seller guarantees lay-time of 36 plus 6 hours to the buyer of each parcel. Bids, offers and trades into other locations will be considered, and will be normalized to reflect a par port. Par ports are typically considered to be those with open storage access and flexibility to handle a variety of cargo sizes, such as Rotterdam and Le Havre. Offers or bids basis non-par ports may be considered for assessment, but these may be normalized to the standard. Bids requiring a full cargo will be considered restrictive and may not be published.

Cargoes delivered into ARA, UK and northern France are considered in the assessment. Since jet trading patterns are diverse, no single base location is reflected. Deliveries into Scandinavia, including Copenhagen, are not considered. Offers are assumed to carry a normal range of charterparty options within NWE.

Platts currently publishes bids and offers for the following locations: Belgium: Antwerp (Antwerp ATPC, Antwerp Oiltanking), Ghent (Ghent Oiltanking); France: Le Havre (Le Havre CIM); Netherlands: Amsterdam (Amsterdam Oiltanking), Rotterdam; UK: Avonmouth, Fawley, Hamble, Immingham, Isle of Grain, Milford Haven, Pembroke, Royal Portbury Docks, Shell Haven.

Platts reflects bids and offers where the seller endeavors to deliver oil on a vessel that will fit plausible terminals and jetties within the port shown in the original bid or offer. Where the buyer needs a vessel that will fit the specific dimensions of a terminal or a jetty, the name of the terminal and/or jetty should be detailed in any bid communicated to Platts for publication. Upon performance of any resulting trade, a buyer may wish to take the vessel to a different port based on its charterparty options. In such a situation, the seller is obliged to provide a vessel fitting plausible terminals in the originally nominated port.

Any jet fuel cargoes offered subject to a new build or refurbished vessel during the Jet CIF NWE cargo MOC assessment process should be able to meet standard nomination practice. Platts reflects jet fuel cargoes delivered on new build and refurbished vessels where relevant guidelines as stated in JIG EI 1530 are met or the seller is able to meet an alternative means of compliance. Platts reserves the right to normalize new build vessels offered in the MOC process for reflection in the final assessment.

The assessment reflects material for delivery 10-25 days from date of publication, with value reflecting the mean of the delivery period. Platts assessments will reflect merchantable quality jet fuel regardless of origin. Platts reflects ex-duty cargoes of jet fuel in its Jet CIF NWE cargo assessment.

Jet Cargoes FOB NWE (PJAAV00): The FOB NWE assessment is

derived from the CIF value based on a differential representing freight costs for handy size vessels on typical routes within NWE. Platts uses the \$/mt value for cross UK Continent tanker freight published in Platts Clean Tankerwire. This assessment reflects the value of parcels loading 10-25 days forward from the date of publication, with values reflecting the mean of the loading period.

Jet Barges FOB FARAG (PJABA00): This assessment reflects parcels of 2,000 mt to 4,000 mt, with value normalized to a 2,000 to 3,000 mt range. Barges are assessed basis FOB Flushing-Amsterdam-Rotterdam-Antwerp-Ghent, 3-15 (Monday to Tuesday) or 5-15 (Wednesday through Friday) days forward from date of publication, with value reflecting the mean of the loading period. The Platts Jet FOB FARAG barge assessment reflects "EU-qualified" material.

Basis Ports: Platts jet barges are basis FOB Flushing-Amsterdam-Rotterdam-Antwerp-Ghent (FARAG)

Barges Sizes: The assessment continues to reflect a basis of 2,000 mt to 3,000 mt. Platts publishes bids and offers for the following ranges: 2,000 mt - 3,000 mt; 2,000 mt - 4,000 mt, with volume nomination in the buyer's option at time of trade. In the eWindow communication environment, buyers have 30 seconds to nominate size upon confirmation of a trade. If a size is not nominated by the buyer within 30 seconds, a default quantity of 2,000 mt applies, which is the most widely traded size in the market. Size nominations can be specified to the nearest

10 metric tons. Nominations should be confirmed using the eWindow size nomination box or other communication means.

Laycans: Bids and offers are published in its MOC assessment process to any fixed five-day period within the 3-15 (Monday-Tuesday) or 5-15 (Wednesday-Friday) days forward assessment period. Platts reflects bids, offers and trades that limit a counterparty's price exposure to operational tolerance. Operational tolerance is limited to plus or minus 5% of the transacted size for barges. When pricing on a floating basis, Platts reflects barges where the operational tolerance prices at the mean of the subsequent three assessments published by Platts after the bill of lading, at the same differential as the main volume.

Jet Fuel FOB Med (AAIDL00): This assessment reflects the value of cargoes of 27,500 mt loading FOB Mediterranean basis Augusta, for loading 10-25 days from date of publication, with value reflecting the mean of the loading period. This assessment is a freight netback from the CIF NWE jet cargo assessment. Details of the calculation are as follows:

The calculation takes the spot Worldscale freight rate as published in Platts Clean Tankerwire, for Med-NWE, pro-rated from 30,000 mt to 27,500 mt. This total is multiplied by the flat rate for the Augusta-Rotterdam route as defined by Worldscale. The appropriate allowance for port fees at Rotterdam is then added. The result of this formula is rounded to the nearest \$0.25/mt and subtracted from the mean of the CIF NWE jet

assessment, to define the FOB Med mean.

Effective January 2, 2020 the Worldscale flat rate used to calculate the netback formula for FOB Mediterranean jet is \$11.31/mt. An additional \$1/mt is added for Rotterdam port fees.

Jet Fuel CIF Med (AAZBN00): This assessment reflects the value of cargoes of 30,000 mt delivered CIF Mediterranean, 10-25 days forward from the date of publication. This assessment is a freight netback from the CIF NWE jet cargo assessment, using the difference between the lump sum assessments of the Persian Gulf to NWE and Persian Gulf to the Med routes, as published in the Platts Clean Tankerwire.

Jet Fuel FOB STS Lome (AJWAA00): This assessment reflects the value of commercial Jet A-1 specification as defined by the latest edition of UK Ministry of Defence's DEFSTAN 91-91. Platts may also take into account indications for other merchantable jet grades appropriate for West African delivery, and normalize them back to the reference specification. The basis of the assessment is FOB STS Lome, Togo. Indications from other locations in West Africa may be taken into account and normalized back to offshore Lome. The West African grade jet assessment represents parcels of 5,000-10,000 mt. Other cargo sizes may also be considered for assessment purposes but normalized back to the reference cargo size. The assessment reflects material for STS loading offshore Lome three to ten days forward from the date of publication.

ULSD

Assessment	CODE	Mavg	CONTRACT BASIS	LOCATION	DELIVERY PERIOD	MIN SIZE	MAX SIZE	CURRENCY	UOM	CONV
ULSD 10ppmS CIF NWE Cargo	AAVBG00	AAVBG03	CIF	NWE (basis ARA)	10-25 days forward	10,000	40,000	US \$	metric ton	7,45
ULSD 10ppmS CIF NWE Basis Le Havre Cargo	AAWZC00	AAWZC03	CIF	NWE (basis Le Havre)	10-25 days forward	10,000	40,000	US \$	metric ton	7,45
ULSD 10ppmS CIF NWE Basis UK Cargo	AAVBH00	AAVBH03	FOB	NWE (basis UK)	10-25 days forward	10,000	40,000	US \$	metric ton	7,45
Diesel 10ppm UK Cargoes CIF NWE – original (French) spec	AUKDA00	AUKDA03	CIF	NWE (basis UK)	10-25 days forward	10,000	40,000	US \$	metric ton	7,45
ULSD 10ppmS CIF NWE Basis UK MOPS diff	AUKMA00	AUKMA03	CIF	NWE (basis UK)	10-25 days forward	10,000	40,000	US \$	metric ton	7,45
ULSD 10ppmS FOB NWE Cargo	AAVBF00	AAVBF03	FOB	NWE (basis ARA)	10-25 days forward	10,000	40,000	US \$	metric ton	7,45
ULSD 10ppmS FOB NWE Basis Le Havre Cargo	AAWZD00	AAWZD03	FOB	NWE (basis Le Havre)	10-25 days forward	10,000	40,000	US \$	metric ton	7,45
ULSD 10ppmS CIF Med Cargo	AAWYZ00	AAWYZ03	CIF	Med (basis Lavera)	10-25 days forward	25,000	30,000	US \$	metric ton	7,45
ULSD 10ppmS FOB Med Cargo	AAWYY00	AAWYY03	FOB	Med (basis Lavera)	10-25 days forward	25,000	30,000	US \$	metric ton	7,45
ULSD 10ppmS FOB ARA Barge	AAJUS00	AAJUW00	FOB	NWE (basis ARA)	3-15 days forward (Monday-Tuesday) 5-15 days forward (Wednesday-Friday)	1,000	3,000	US \$	metric ton	7,45

ULSD

Seasonal Changes: Platts schedules seasonal specification changes for its assessments of diesel fuel in late winter ahead of the transition from winter grade to summer grade, and then in late summer ahead of the transition from summer to winter. Intermediate grade diesel will also be reflected as appropriate. Platts follows the same seasonal schedule each year, but the exact dates may vary in line with prevailing patterns of refining trading activity. As trading and seasonal patterns change from year to year, any schedule is provisional and subject to change with limited notice.

Trace elements of biodiesel: Platts ULSD assessments reflect non-intentionally blended trace elements of biodiesel up to a maximum of 0.30%

Clear and bright: Platts reflects ultra-low sulfur diesel (ULSD) with a clear and bright aspect.

Part-cargoes: Platts CIF European ULSD assessments reflect bids, offers and trades that allow a seller to deliver oil from a part-cargo provided the vessel at the time of sale, either as a named vessel in the offer or by hitting a bid with a named

vessel. Additionally, when selling on a part-cargo basis, a seller must commit to supplying the performing fuel in segregated tanks with separate bills of lading. A seller must also commit to discharging any additional fuel above the contractual size prior to discharge of the main cargo, and also protect the buyer against any additional freight exposure caused by delivering on a part-cargo basis. When supplying on a part-cargo basis, the seller must provide a vessel commensurate with typical trade patterns in that market.

Terminals and Ports: Platts reflects bids and offers where a seller endeavors to deliver oil on a vessel that will fit plausible terminals and jetties within the port shown in the original bid or offer. Where the buyer needs a vessel that will fit the specific dimensions of a terminal or a jetty, the name of the terminal and/or jetty should be detailed in any bid communicated to Platts for publication. Upon performance of any resulting trade, a buyer may wish to take the vessel to a different port based on its charterparty options. In such a situation, a seller is obliged to provide a vessel fitting plausible terminals in the original basis port.

Operational Tolerance: Platts reflects bids, offers and trades that limit a counterparty's price exposure to operational

tolerance. Operational tolerance is limited to plus or minus 10% of the transacted size for cargoes and 5% for barges. As an example, a barge size of 3,000 mt would have a maximum operational tolerance of plus or minus 150 mt. When pricing on a floating basis, Platts reflects CIF cargoes where the operational tolerance prices after the completion of discharge, and barges where the operational tolerance prices after the bill of lading.

ULSD 10 ppm Cargoes CIF NWE (AAVBG00): This assessment reflects 10,000-40,000 mt cargoes of Benelux and French quality diesel fuel with a maximum sulfur content of 10 ppm and density in the range 0.82-0.845 kg/l. The reference density is 0.845 kg/l. Platts normalizes all indications to a 30,000 mt standard with a standard 10% operational tolerance. Bids, offers and transactions for other 10 ppm grades, such as UK or German specifications, into typical CIF NWE locations will be considered in the assessment process and may be normalized to the basis assessment. The CIF assessment reflects ARA delivery with typical charterparty options, including the Hamburg-Bordeaux and North Spain range, German North Sea, the German Baltic Sea, ARA, Poland, Thames, the East Coast and the South Coast of the UK. As with other existing charterparty options, West Coast UK charterparty options may not be unreasonably withheld. Bids and offers into ports in this

range may be considered for publication in the assessment process. Platts has observed a widespread market standard of charterparty rates carrying minimum Hamburg flat rates for deliveries into the German port of Rostock, and will assess any bids, offers or trades for that port reported in the MOC process on that basis. Offers stipulating alternative charterparty rates may be considered for publication and sellers are expected to clearly stipulate these in the terms of the offers, which may be normalized accordingly.

The assessment reflects material for delivery 10-25 days from date of publication, with value reflecting the mean value of the delivery period. Following the introduction of a Filter Blocking Tendency (FBT) limit of 2.52 in the UK's diesel specification from November 1, 2015, Platts has reflected bids for a UK grade of diesel with maximum FBT of 2.52 in its Northwest European diesel cargo assessments, but continues to normalize them back to the value of French diesel specification.

Platts currently publishes bids and offers for the following locations: Belgium: Antwerp, Ghent; France: Bordeaux, Brest, Donges, Dunkirk, La Pallice, Le Havre, Lorient, Pauillac, Rouen; Germany: Bremen, Hamburg Kiel, Rostock, Wilhelmshaven; Ireland: Dublin; Netherlands: Amsterdam, Rotterdam; Spain: Bilbao, Gijon; UK: Belfast, Cardiff, Clydebank, Eastham, Grangemouth, Immingham, Londonderry, Milford Haven, Plymouth, Teesside, Thames, Tranmere.

Diesel 10ppm Cargoes CIF NWE (AAWZC00): This assessment is a freight netforward to the ULSD 10 ppm CIF NWE assessment (basis ARA) using daily freight rates published in the Platts Clean Tankerwire. Effective January 2, 2020, the flat rate used to calculate the net-forward formula for ULSD 10ppmS CIF NWE Basis Le Havre Cargoes is \$1.36/mt. The assessment reflects 10,000 to 40,000 mt cargoes of Benelux and French quality diesel fuel delivered CIF basis Le Havre with a maximum sulfur content of 10 ppm and density in the range 0.82-0.845 kg/l. The reference density is 0.845 kg/l. The assessment reflects material for delivery 10-25 days from the date of publication, with value

reflecting the mean of the delivery period.

Diesel 10ppm UK Cargoes CIF NWE (AAVBH00): Effective September 1, 2020, this assessment reflects the value of UK specification diesel delivered into UK ports, 10-25 days forward from date of publication. The assessment reflects the delivery of UK specification ultra-low sulfur diesel into a basket of UK ports with the following weightings: Thames (50%), Cardiff (30%), Humber (20%). The latest standard for UK-specification diesel (EN590) stipulates a concentration limit of 10,000 max for particles of more than 4 microns in diameter per ml and 10ppm sulfur concentration. The assessment reflects bids, offers and trades reported through the Platts MOC assessment process, as well as indications gathered from the market and relevant freight. All bids and offers reported in the CIF Northwest European diesel cargo MOC for UK specification will be deemed to adhere to the latest version of the BSI EN590. The assessment reflects 10,000 to 40,000 mt cargoes, with value normalized to a typical cargo size of 30,000 mt with plus or minus 10% operational tolerance. Platts currently publishes bids and offers for the following locations: Belfast, Cardiff, Clydebank, Eastham, Grangemouth, Immingham, Londonderry, Milford Haven, Plymouth, Teesside, Thames, Tranmere.

Diesel 10ppm UK - old spec (AUKDA00): This assessment is a freight netforward to the ULSD 10 ppm CIF NWE assessment (basis ARA), based on a freight differential to typical UK ports and using daily freight rates published in the Platts Clean Tankerwire. The basket of flat rates includes three typical destinations into the UK. The basket is weighted to reflect Thames (50%), Cardiff (30%) and Immingham (20%). Effective January 2, 2020, the flat rate used to calculate the netforward formula for Diesel 10 ppm UK Cargoes CIF NWE is \$2.31/mt. This assessment reflects Benelux and French quality diesel fuel with a maximum sulfur content of 10 ppm and density in the range 0.82-0.845 kg/l. The reference density is 0.845 kg/l. This is a temporary assessment scheduled to be published until December 2021. Platts also publishes a monthly average spread between Diesel 10ppm UK - old spec (AUKDA00) and Diesel

10ppm UK Cargoes CIF NWE (AAVBH00) under the code AAVBi03. ULSD UK MOPS differential (AUKMA00): This assessment is published as a differential to the existing Mean Of Platts London (MOPL) NWE ULSD cargo strip, extrapolated from the existing CIF ARA ULSD cargo assessment (basis ARA) assessment (Code: AAVBG00). The differential is generated using value from the MOC process by comparing bids and offers of French specification ULSD to UK ULSD or heard indications from the market. The specification reflected is the latest standard issued for EN590 diesel by the British Standard Institution (BSI).

ULSD 10ppm Cargoes FOB NWE (AAVBF00): This assessment is a freight netback to the ULSD 10 ppm Cargoes CIF NWE assessment, based on the following routes: Brofjorden, Porvoo, Slagen, Primorsk, Riga and Kaliningrad to ARA and using the daily freight rates published in the Platts Clean Tankerwire. Effective January 2, 2020, the Worldscale flat rate used to calculate the netback formula for ULSD 10ppm FOB NWE is \$7.78/mt. This assessment reflects Benelux and French quality diesel fuel with a maximum sulfur content of 10ppm and density in the range 0.82-0.845 kg/l. The reference density is 0.845 kg/l.

Diesel 10ppm NWE Cargoes FOB NWE (AAWZD00): This assessment is a freight netback to the Diesel 10ppm NWE Cargoes CIF NWE assessment, based on the following routes: Amsterdam, Rotterdam, Antwerp, Klaipeda, Wilhelmshaven, Ventspils to Le Havre and using the daily freight rates published in the Platts Clean Tankerwire. Effective January 2, 2020 the Worldscale flat rate used to calculate the netback formula for Diesel 10ppm FOB NWE is \$7.91/mt. The assessment reflects Benelux and French quality diesel fuel with a maximum sulfur content of 10ppm and density in the range 0.82-0.845 kg/l. The reference density is 0.845 kg/l.

10ppm ULSD Cargoes CIF Med (AAWYZ00): This assessment reflects French quality diesel, but other grades such as Italian, Spanish and Slovenian quality may be considered. The assessment reflects the value of 25,000-30,000 mt cargoes, delivered CIF basis Lavera, with normal charterparty options

within the Mediterranean. The assessment reflects material for delivery 10-25 days from the date of publication, with value reflecting the mean of the delivery period. Platts also reflects bids, offers and trades into the North African port of Tangier Med, Morocco.

Platts currently publishes bids and offers for the following locations: Cyprus : VTT Vasiliko; Egypt: Alexandria; France: La Nouvelle, Lavera, Sete; Greece: Agioi Theodori, Elefsis, Thessaloniki; Italy: Falconara Fiumicino, Genoa, Gaeta, Naples, Venice; Malta: Malta; Morocco: Tangier; Slovenia: Koper; Spain: Algeciras Barcelona, Castellon, Cartagena, Huelva, Huelva (South Terminal), Malaga, Tarragona, Valencia; Tunisia: La Skhirra; Turkey: Aliaga, Aliaga (Total Terminal), Aliaga (PO Terminal), Dortyol, Iskenderun (PO Terminal), Mersin.

10ppm ULSD Cargoes FOB Med (AAWY00): This assessment is calculated as a freight netback from the 10ppm ULSD Cargoes CIF MED assessment, based on routes in the Mediterranean :

Santa Panagia, Aliaga, Agioi Theodoroi and Batumi to Genoa and Lavera using the daily freight rates published in the Platts Clean Tankerwire for Med-Med 30,000 mt cargoes. Effective January 2, 2020, the Worldscale flat rate used to calculate the netback formula for ULSD FOB Med is \$8.32/mt.

Diesel 10ppm Barges (AAJUS00): This assessment reflects German specification diesel with a maximum sulfur content of 10ppm. The typical density is basis 0.845 kg/l (actual density ranges from 0.82 to 0.845 kg/l). The assessment reflects barges of 1,000 to 3,000 mt loading FOB basis Amsterdam-Rotterdam-Antwerp 3-15 (Monday to Tuesday) or 5-15 (Wednesday through Friday) days forward, with value reflecting the mean of the delivery period. Bids, offers and transactions for Flushing-Ghent may also be published but normalized back to ARA.

Platts reflects undyed material in its diesel barge assessment, but the buyer may request red dyeing of a barge loading in Flushing, Amsterdam, Rotterdam, Antwerp or Ghent at their own

expense, and the seller should try to accommodate the request if dyeing is available at the loading terminal and possible to achieve logistically. The buyer should inform the seller of their intention to dye upon nomination of the barge.

Platts will only reflect bids, offers and trades that are for the front end (first five days of the assessed period), middle window (middle five days of the assessed period) and back end (last five days of the assessed period).

In the eWindow communication environment, buyers have 30 seconds to nominate size upon confirmation of a trade. If a size is not nominated by the buyer within 30 seconds, a default quantity of 2,000 mt applies. This corresponds to the most widely traded size in the market. Size nominations can be specified to the nearest 10 metric tons. Nominations should be confirmed using the eWindow size nomination box or other communication means.

GASOIL

Assessment	CODE	Mavg	CONTRACT BASIS	LOCATION	DELIVERY PERIOD	MIN SIZE	MAX SIZE	CURRENCY	UOM	CONV
Gasoil 0.1%S CIF NWE Cargo	AAWWS00	AAWWS03	CIF	NWE (basis Le Havre)	10-25 days forward	10,000	30,000	US \$	metric ton	7.45
Gasoil 0.1%S FOB NWE Cargo	AAWWR00	AAWWR03	FOB	NWE (basis Le Havre)	10-25 days forward	10,000	30,000	US \$	metric ton	7.45
Gasoil .1%S (1000ppm) CIF Med Cargo	AAVJJ00	AAVJJ03	CIF	Med (basis Genoa)	10-25 days forward	25,000	30,000	US \$	metric ton	7.45
Gasoil 0.1%S FOB Med Cargo	AAVJI00	AAVJI03	FOB	Med (basis Genoa)	10-25 days forward	25,000	30,000	US \$	metric ton	7.45
Gasoil .1%S (1000ppm) FOB ARA Barge	AAWWT00	AAWWT03	FOB	ARA	3-15 days forward (Monday-Tuesday) 5-15 days forward (Wednesday-Friday)	1,000	3,000	US \$	metric ton	7.45
Gasoil .005%S (50ppm) FOB ARA Barge	AAUQC00	AAUQC03	FOB	ARA	5-15 days forward	1,000	3,000	US \$	metric ton	7.45
Gasoil FOB STS Lome West Africa Cargo	AGNWD00	AGNWD03	FOB STS	Lome	3-10 days	5,000	10,000	US \$	metric ton	-
Gasoil FOB STS Lome West Africa Cargo	AGNWD00	AGNWD03	FOB STS	Lome	3-10 days	5,000	10,000	US \$	metric ton	7.45

Gasoil

European NWE gasoil assessments reflect 0.1% maximum sulfur content.

0.1% gasoil barges are assessed FOB basis Amsterdam-Rotterdam-Antwerp (ARA). Bids, offers and transactions for Flushing-Ghent will also be published but may be normalized back to ARA.

Part Cargoes: Platts CIF European gasoil assessments reflect bids, offers and trades that allow a seller to deliver oil from a part-cargo provided the vessel was named at the time of sale, either as a named vessel in the offer or by hitting a bid with a named vessel. Additionally, when selling on a part-cargo basis, a seller must commit to supplying the performing fuel in segregated tanks with separate bills of lading. A seller must also commit to discharging any additional fuel above the contractual size prior to discharging the main cargo, and also protect the buyer against any additional freight exposure caused by delivering on a part-cargo basis. When supplying on a part-cargo basis the seller must provide a vessel commensurate with typical trade patterns in that market.

Terminals and Ports: Platts reflects bids and offers where the seller endeavors to deliver oil on a vessel that will fit plausible

terminals and jetties within the port shown in the original bid or offer. Where the buyer needs a vessel that will fit the specific dimensions of a terminal or a jetty, the name of the terminal and/or jetty should be detailed in any bid communicated to Platts for publication. Upon performance of any resulting trade, a buyer may wish to take the vessel to a different port based on its charterparty options. In such a situation, the seller is obliged to provide a vessel fitting plausible terminals in the originally nominated port.

Operational Tolerance: Platts reflects bids, offers and trades that limit a counterparty's price exposure to operational tolerance. Operational tolerance is typically limited to plus or minus 10% of the transacted size for cargoes and 5% for barges. As an example, a barge size of 3,000 mt would have a maximum operational tolerance of plus or minus 150 mt. When pricing on a floating price basis, Platts reflects CIF cargoes where the operational tolerance prices after the completion of discharge, and barges where the operational tolerance prices after the bill of lading.

Gasoil 0.1% Cargoes CIF NWE (AAWWS00): This assessment reflects French Fuel Oil Domestique (FOD) quality gasoil fuel with a maximum sulfur content of 0.1% and normalized to a reference density of 0.845 kg/l. Platts also publishes bids, offers and trades for other qualities, including Spanish (B&C) and

German Deutsche Industrie Norm (DIN) quality gasoil, which may be normalized to the benchmark specification.

The assessment reflects cargo sizes of 10,000 mt to 30,000 mt, normalized to a 20,000 mt reference size, for CIF delivery basis Le Havre with normal charterparty options. Cargoes with charterparty options in the range of Hamburg and North Spain would typically be included. The assessment reflects material for delivery 10-25 days from the date of publication, with value reflecting the mean of the delivery period.

Platts currently publishes bids and offers for the following locations: Belgium: Antwerp, Ghent; France: Bordeaux, Brest, Donges, Dunkirk, La Pallice, Le Havre, Lorient, Pauillac, Rouen; Germany: Bremen, Kiel, Hamburg, Rostock, Wilhelmshaven; Netherlands: Amsterdam, Rotterdam; Spain: Bilbao, Gijon; UK: Belfast, Milford Haven, Thames

Gasoil 0.1% Cargoes FOB NWE (AAWWR00): This assessment is calculated as a freight netback from the Gasoil 0.1% Cargoes CIF NWE assessment, based on a basket of the following routes: Ventspils, Antwerp and Stockholm to Le Havre. Effective January 2, 2020 the Worldscale flat rate used to calculate the netback formula for Gasoil 0.1% FOB NWE is \$8.62/mt.

Gasoil 0.1% Cargoes CIF Med (AAVJJ00): This assessment

reflects Spanish (B&C) quality gasoil for heating oil use. Grades which are not widely merchantable may not be reflected in the assessment - as an example, because of low cetane or above normal water content. The assessment reflects the value of 25,000 mt to 30,000 mt cargoes, CIF basis Genoa with normal charterparty options. The assessment reflects material for delivery 10-25 days from the date of publication, with value reflecting the mean of the delivery period.

Platts currently publishes bids and offers for the following locations: Algeria: Algiers, Arzew, Skikda; Cyprus: Vasilikos Power Station, VTT Vasiliko; Egypt: Alexandria; France: La Nouvelle, Lavera, Sete; Greece: Agioi Theodori, Elefsis, Thessaloniki; Italy: Falconara, Fiumicino, Gaeta, Genoa, Naples, Trieste, Venice; Morocco: Tangier; Slovenia: Koper; Spain: Algeciras, Barcelona, Castellon, Huelva, Malaga, Valencia; Tunisia: La Skhirra; Turkey: Aliaga, Aliaga (Total Terminal, PO Terminal), Mersin, Iskenderun (PO Terminal),

Platts schedules seasonal specification changes for its Mediterranean gasoil assessments I in late winter ahead of the transition from winter grade to summer grade and then in late summer, ahead of the transition from summer to winter. Platts intends to follow broadly similar schedules each year, but the exact dates may vary in line with prevailing patterns of refining and trading activity. As trading and seasonal patterns change from year to year, any schedule is provisional and subject to change with limited notice.

Gasoil 0.1% Cargoes FOB Med (AAVJI00): As of January 2, 2020 this assessment is calculated as a freight netback from the Gasoil 0.1% Cargoes CIF Med assessment, based on the following routes: from Sarroch, Novorossiisk and Batumi to Genoa and Lavera. Effective January 2, 2020, the Worldscale

flat rate used to calculate the freight netback formula for Gasoil 0.1% FOB Med is \$9.31/mt. Previously, this was calculated based on the following routes: Malta, Novorossiisk and Batumi to Genoa and Lavera.

Gasoil 0.1% Barges FOB ARA (AAYWT00): This assessment reflects heating oil grades with a reference density of 0.845 kg/l and with a maximum sulfur content of 0.1%. The assessment reflects barges of 1,000 mt to 3,000 mt. In the eWindow communication environment, buyers have 30 seconds to nominate size upon confirmation of a trade. If a size is not nominated by the buyer within 30 seconds, a default quantity of 2,000 mt applies. This corresponds to the most widely traded size in the market. Size nominations can be specified to the nearest 10 metric tons. Nominations should be confirmed using the eWindow size nomination box or other communication means.

The assessment reflects the value of barges loading FOB basis ARA 3-15 (Monday to Tuesday) or 5-15 (Wednesday through Friday) days forward, with value reflecting the mean of the loading period. Bids, offers and transactions for Flushing and Ghent may also be published but normalized back to ARA.

Platts reflects undyed material in its assessment, but the buyer may request red dyeing of a barge loading in Flushing, Amsterdam, Rotterdam, Antwerp or Ghent at their own expense, and the seller should try to accommodate the request if dyeing is available at the loading terminal and possible to achieve logistically. The buyer should inform the seller of their intention to dye upon nomination of the barge.

Platts will reflect bids, offers and trades that are for the front end (first five days of the assessed period), middle window

(middle five days of the assessed period) and back end (last five days of the assessed period).

Gasoil 50ppm Barges FOB ARA (AAUQC00): This assessment reflects German specification heating oil with a maximum sulfur content of 50 ppm. The typical density is basis 0.845 kg/l. The assessment reflects barges of 1,000 mt to 3,000 mt.

In the eWindow communication environment, buyers have 30 seconds to nominate size upon confirmation of a trade. If a size is not nominated by the buyer within 30 seconds, a default quantity of 2,000 mt applies. This corresponds to the most widely traded size in the market. Size nominations can be specified to the nearest 10 metric tons. Nominations should be confirmed using the eWindow size nomination box or other communication means.

Gasoil 0.3% FOB STS Lome (AGNWD00): This assessment reflects West African grade gasoil. The assessment reflects the value of gasoil with the following characteristics: Sulfur: max 0.3%; Flash Point: min 66 degrees Celsius with a reference flash point of 70 degrees Celsius; Density: 0.820-0.870 kg/l with a reference density of 0.860 kg/l. Platts may also take into account indications for other merchantable gasoil grades appropriate for West African delivery, and normalize them back to the reference specification. The basis of the assessment is FOB STS Lome, Togo. Indications from other locations in West Africa may be taken into account and normalized back to offshore Lome. The West African grade gasoil assessment represents parcels of 5,000-10,000 mt. Other cargo sizes may also be considered for assessment purposes but normalized back to the reference cargo size. The assessment reflects material for STS loading offshore Lome three to ten days forward from the date of publication.

FUEL OIL

Assessment	CODE	Mavg	Eur/mt	Eur/mt Mavg	CONTRACT BASIS	LOCATION	DELIVERY PERIOD	MIN SIZE	MAX SIZE	CURRENCY	UOM	CONV
FO 1%S CIF Med Cargo	PUAAJ00	PUAAJ03	ABWGF00	ABWGF03	CIF	Med (Milazo)	10-25 days forward	25,000	30,000	US \$	MT	6.35
FO 1%S FOB Med Cargo	PUAAK00	PUAAK03	ABWGH00	ABWGH03	FOB	Med (Milazo)	10-25 days forward	25,000	30,000	US \$	MT	6.35
FO 1%S CIF NWE Cargo	PUAAL00	PUAAL03	ABWGG00	ABWGG03	CIF	NWE (Antwerp)	10-25 days forward	25,000	30,000	US \$	MT	6.35
FO 1%S FOB NWE Cargo	PUAAM00	PUAAM03	AAQCG00	AAQCG03	FOB	NWE (Antwerp)	10-25 days forward	25,000	30,000	US \$	MT	6.35
FO 1%S FOB Rdam Barge	PUAAP00	PUAAP03	ABWGI00	ABWGI03	FOB	NWE (Rotterdam)	3-15 days forward (Monday-Tuesday) 5-15 days forward (Wednesday-Friday)	1,000	5,000	US \$	MT	6.35
FO 3.5%S CIF Med Cargo	PUAAY00	PUAAY03	ABWKG00	ABWKG03	CIF	Med (Italy)	10-25 days forward	25,000	30,000	US \$	MT	6.35
FO 3.5%S FOB Med Cargo	PUAAZ00	PUAAZ03	ABWGM00	ABWGM03	FOB	Med (Genoa/Lavera)	10-25 days forward	25,000	30,000	US \$	MT	6.35
FO 3.5%S CIF NWE Cargo	PUABA00	PUABA03	ABWGL00	ABWGL03	CIF	Rotterdam (NWE)	10-25 days forward	25,000	30,000	US \$	MT	6.35
FO 3.5%S FOB NWE Cargo	PUABB00	PUABB03	ABWGN00	ABWGN03	FOB	NWE (Rotterdam)	10-25 days forward	25,000	30,000	US \$	MT	6.35
FO 3.5%S FOB Rdam Barge	PUABC00	PUABC03	AAQCK00	AAQCK03	FOB	NWE (Rotterdam)	3-15 days forward (Monday-Tuesday) 5-15 days forward (Wednesday-Friday)	2,000	10,000	US \$	MT	6.35
Fuel Oil 3.5% 500 CST FOB Rdam Barge	PUAGN00	PUAGN03	PUAGO00	PUAGO03	FOB	NWE (Rotterdam)	3-15 days forward (Monday-Tuesday) 5-15 days forward (Wednesday-Friday)	2,000	10,000	US \$	MT	6.23
FOB Rotterdam Marine Fuel 0.5% Barge	PUMFD00	PUMFD03	PUMFE00	PUMFE03	FOB	NWE (Rotterdam-Antwerp)	3-15 days forward (Monday-Tuesday) 5-15 days forward (Wednesday-Friday)	2,000	10,000	US \$	MT	6.35
FOB ARA 0.1% DMA MGO Barge	LGARD00	LGARD03	LGARE00	LGARE03	FOB	ARA	3-15 days	1,000	3,000	US \$	MT	7.45
CIF Mediterranean Marine Fuel 0.5% Cargo	MFCMM00	MFCMM03	MFCME00	MFCME03	CIF	Med (Genoa)	10-25 days forward	25,000	30,000	US \$	MT	6.35
FOB Mediterranean Marine Fuel 0.5% Cargo	MFFMM00	MFFMM03	MFFME00	MFFME03	FOB	Med	10-25 days forward	25,000	30,000	US \$	MT	6.35

Fuel oil

Platts European fuel oil assessments represent the value of cracked fuel oil. In the high and low sulfur cracked fuel oil markets, a multitude of qualities trade and varying qualities are considered in the assessment process. In some cases, Platts incorporate freight differentials in establishing FOB to CIF spreads. Platts assesses a number of European freight routes in Platts Dirty Tankerwire, which typically link FOB and CIF Northwest European, Mediterranean and NWE-to-Med fuel oil assessments.

Barge Nomination procedures: In its FOB Rotterdam fuel oil barge assessments, a seller can nominate any reasonable terminal in the Amsterdam-Rotterdam-Antwerp region for an FOB Rotterdam barge trade reported in the Market on Close

assessment process, and the buyer should not unreasonably refuse this option. The seller should compensate the buyer for the demonstrable incremental freight cost associated with loading in an alternative port to Rotterdam.

In its FOB Rotterdam Marine Fuel 0.5% barge assessment, a seller can nominate any reasonable terminal in the Amsterdam-Rotterdam-Antwerp region for an FOB Rotterdam-Antwerp barge trade reported in the Market on Close assessment process, and the buyer should not unreasonably refuse this option. The seller should compensate the buyer for the demonstrable incremental freight cost associated with loading in an alternative port to Rotterdam-Antwerp.

The freight differential applied should be mutually agreed by both counterparties involved in the reported trade. Platts

may review costs applied to ensure they reflect market value. Sellers should nominate load port according to standard market practice. Typically, load port nomination in barges occurs at least 24 hours ahead of delivery.

Operational Tolerance: Platts reflects bids, offers and trades that limit a counterparty's price exposure to operational tolerance. Platts cracked fuel oil assessments reflect the value of cargoes of 25,000 to 30,000 mt or 30,000 mt plus/minus 10% for operation tolerance. When pricing on a floating price basis Platts reflects CIF cargoes where the operational tolerance prices after the completion of discharge, and barges where the operational tolerance prices after the bill of lading.

Sediment: In Low Sulfur Fuel Oil (LSFO) cargoes, Platts understands that it is typical for suppliers to meet broadly

shared end-user requirements around sediment, namely a guarantee to meet 0.10 (mass %) maximum sediment under the three sediment tests covered within ISO:8217 standards: Total Sediment Existent (TSE), Total Sediment Potential (TSP), and Total Sediment Accelerated (TSA). Platts therefore considers that merchantable material should meet such a requirement. No addition of Used Lubricant Oil (ULO) is also considered to be a typical expectation for merchantable specification LSFO. Offers of LSFO cargoes submitted for publication and consideration during the Platts Market on Close assessment process in Europe should clearly indicate if the material offered does not meet either, or both, of these requirements. Such offers may be subject to normalization in value for assessment. Similarly, sellers expressing interest in hitting bids published during the MOC process are also expected to supply material that meets merchantable standards, including the above specification expectations, to the buyer, unless the buyer has expressly stated different specifications in a published bid.

Combined Nomenclature Coding: Combined Nomenclature (CN) codes, which are designated by, and subject to the approval of, customs authorities within each EU member country, are an important component of settling tariffs and taxes for products including LSFO within the EU. LSFO of identical specification may be classified using one of three existing CN codes (CN code 2707 9999, CN Code 2710 1966, or CN Code 2710 1967). The choice of code may vary between customs authorities in Europe, and the choice may affect LSFO merchantability. Platts European and Mediterranean assessments reflect LSFO where the material has been assigned CN code 2707 9999. In instances where a seller intends to deliver a fuel with a CN code other than 2707 9999, the seller must specify this CN code in the terms of any offer provided for publication. Buyers providing bids for publication by Platts must be willing to accept fuel with the CN code 2707 9999. Platts publishes bids in which the buyer specifies that they will also accept CN Code 2710 1966 or CN Code 2710 1967 but Platts does not publish bids for fuel with a CN Code 2710 1966 or CN Code 2710 1967 designation only, as this may be unduly restrictive in nature. In instances where the

CN code used has a material effect on LSFO value, Platts may normalize offers of fuel with CN Code 2710 1966 or CN Code 2710 1967.

Marine Fuel 0.5%: Platts launched daily cargo and barge assessments for Marine Fuel 0.5% reflecting residual marine fuels (RMG fuels as defined by the International Organization for Standardization in document ISO 8217:2010 Petroleum products - Fuels (class F) - Specifications of marine fuels) with a maximum sulfur limit of 0.5% across the globe starting January 2, 2019. Platts added a minimum viscosity of 30 CST to its Marine Fuel 0.5% assessments, from April 1, 2020. All cargoes or barges delivered as a result of transactions reported during the Platts MOC process must be tested against all parameters of the RMG standards, including viscosity. In addition, the International Standards Organization released its Publicly Available Specification 23263:2019 document regarding Marine Fuel 0.5%S quality in September 2019. In that document, the ISO stated that the Total Sediment Accelerated test currently typically employed for bunker deliveries may be unreliable for the new fuel. It recommended the use of the Total Sediment Potential test. The TSP test requires 24 hours for a result to be given. Per the ISO's recommendation, Platts expects sellers to provide COAs with a complete TSP result.

FOB Rotterdam Marine Fuel 0.5% Barge assessment (PUMFD00): This assessment reflects parcels of 2,000 mt to 5,000 mt each. Barges are typically traded in 2,000 mt lots. The assessment reflects the value of barges loading FOB basis Rotterdam-Antwerp, for loading 3-15 (Monday to Tuesday) or 5-15 (Wednesday through Friday) days forward, with value normalized to reflect the mean value of these loading ranges. Barges typically trade for the front five days, middle five days or the back five days. The Platts 0.5% barge assessment is based on bids/offers and trades for 5-day loading windows.

CIF Mediterranean Marine Fuel 0.5% cargo assessment (MFCMM00): The assessment reflects the value of cargoes of 25,000 to 30,000 mt, delivered CIF basis Genoa, with normal

charter-party options. The assessment reflects material for delivery 10-25 days from date of publication, with value normalized to reflect the mean value of the delivery period. Platts publishes bids and offers on a CIF basis into the following locations: Algeciras, Barcelona, Ceuta, Genoa, Gibraltar, Malta and Tangier Med. Platts publishes bids and offers on an outright price basis, and versus 0.5% CIF Mediterranean marine fuel cargoes, 0.5% FOB Rotterdam marine fuel barges, 3.5% FOB Rotterdam barges, 3.5% CIF Mediterranean cargoes, 3.5% FOB Mediterranean cargoes and as an EFP relative to ICE LSGO.

FOB Mediterranean Marine Fuel 0.5% cargo assessment (MFFMM00): This assessment is established using a freight differential to the CIF Mediterranean assessment, using a flat rate based on a basket of typical tanker routes, multiplied by the daily Worldscale assessment for the 30,000 mt Cross-Mediterranean route assessed in Platts Dirty Tankerwire. The flat rate used for 2020, effective January 2, is \$6.13/mt.

FOB ARA 0.1% DMA spec MGO Barge assessment (LGARD00): This assessment reflects FOB Amsterdam-Rotterdam-Antwerp (ARA) Marine Gasoil barges of ISO 8217:2010-F-DMA specification, with maximum of 0.1% sulfur. This assessment reflects the value of 1,000-3,000 mt parcels of MGO, with volume nomination in the buyer's option. Trades for other sizes will also be taken into account and, where appropriate, normalized. Platts assesses the value of MGO barges loading FOB ARA 3-15 days ahead on Monday and Tuesday, and 5-15 days ahead on Wednesday through Friday. All bids/offers and trades are published FOB ARA (Amsterdam-Rotterdam-Antwerp). Upon a deal, a seller can nominate any standard terminal in ARA. Platts reflects all standard market practice in the existing trade of FOB MGO barges: EFP (ICE LSGO M1 and ICE LSGO M2), flat price, and Platts 0.1% gasoil barge-related. Platts reflects bids, offers and trades that limit a counterparty's price exposure to operational tolerance. Operational tolerance is typically limited to plus or minus 5% of the transacted size for barges. For floating and flat price indications, Platts deems the pricing of the operational tolerance to occur at the three quotations after

Bill of Lading, with the same differential as the main volume, where applicable. In the eWindow communication environment, buyers have 30 seconds to nominate size upon confirmation of a trade. If a size is not nominated by the buyer within 30 seconds, a default quantity of 2,000 mt applies. This corresponds to the most widely traded size in the market. Size nominations can be specified to the nearest 100 metric tons. Nominations should be confirmed using the eWindow size nomination box or other communication means.

Fuel Oil 1.0% Cargoes CIF Med (PUAAJ00): This assessment reflects a wide variety of specifications, normalized to material with a maximum sulfur content of 1%, material with a density of up to 0.991 kg/l and a maximum viscosity of 380 CST (at 50 degrees Celsius), a maximum combined aluminum and silicon content of maximum 60ppm, 30 degrees Celsius maximum pour point, flash minimum 65 degrees Celsius, Conradson Carbon Residue (CCR) maximum 15%, ash maximum 0.1%, water maximum 0.5%, vanadium maximum 150 mg/kg, Net Calorific Value (NCV) minimum 9650 kcal/kg, asphaltenes maximum 7 %. Material of a varying density may be considered for assessment, but may be normalized back to the standard.

The assessment reflects the value of cargoes of 25,000 to 30,000 mt or 30,000 mt plus/minus 10% operational tolerance, delivered CIF basis Milazzo. Platts considers bids, offers and transactions into a range of East and West Mediterranean locations and normalizes this value to basis Milazzo. The assessment represents EU-qualified material. The assessment reflects material for delivery 10-25 days from date of publication, with value normalized to reflect the mean value of the delivery period.

When the CIF Med market is illiquid, and when there is insufficient local supply to meet utility demand in the region, Platts may derive the CIF Med value using FOB NWE plus freight into the Mediterranean. Effective January 2, 2020, the Worldscale flat rate used to calculate the net-forward formula for 1% CIF Med Fuel Oil is \$13.70/mt.

Platts currently publishes bids and offers for the following locations: Algeciras, Ceuta, Gibraltar, Malta, Milazzo, Lavrion, Vassilikos, Agioi Theodori, Eleusis and Barcelona.

Fuel Oil 1.0% Cargoes FOB Med (PUAAK00): This assessment is established using a freight differential to the CIF Med assessment, using a flat rate based on a basket of typical tanker routes, multiplied by the daily Worldscale rate assessed in Platts Dirty Tankerwire. Effective January 2, 2020, the Worldscale flat rate used to calculate the netback formula for 1% FOB Med Fuel Oil is \$6.90/mt.

The assessment reflects a wide variety of specifications, normalized to material with a maximum sulfur content of 1%, material with a density of up to 0.991 kg/l and a maximum viscosity of 380 CST (at 50 degrees C), a maximum combined aluminum and silicon content of maximum 60ppm, 30 degrees Celsius maximum pour point, flash minimum 65 degrees Celsius, CCR maximum 15%, ash maximum 0.1%, water maximum 0.5%, vanadium maximum 150 mg/kg, NCV minimum 9650 kcal/kg, asphaltenes maximum 7%. The assessment reflects the value of cargoes of typically 25,000 to 30,000 mt, loading FOB Mediterranean, for EU-qualified material, for loading 10-25 days from date of publication, with value normalized to reflect the mean value of the loading window. Platts currently does not publish bids or offers for 1% FO FOB Med Cargoes.

Fuel Oil 1.0% Cargoes CIF NWE (PUAAL00): This assessment reflects a wide variety of specifications, but normalized to material with a maximum sulfur content of 1% density of up to 0.991 kg/l and a maximum viscosity of 380 CST (at 50 degrees Celsius), a maximum combined aluminum and silicon content of 60ppm, 30 degrees Celsius maximum pour point, flash minimum 65 degrees Celsius, CCR maximum 15%, ash maximum 0.1%, water maximum 0.5%, vanadium maximum 150 mg/kg, NCV minimum 9650 kcal/kg, asphaltenes maximum 7%.

The assessment reflects material for delivery 10-25 days from date of publication, with value normalized to reflect the mean

value of the delivery period.

The CIF NWE assessment is calculated as a freight differential to the FOB NWE assessment using a flat rate based on a basket of typical tanker routes, multiplied by the current Worldscale rate assessed in Platts Dirty Tankerwire. Effective January 2, 2020 the Worldscale basket flat rate used to calculate cross NWE low sulfur fuel oil is \$6.47/mt. Platts currently does not publish bids or offers for 1% FO CIF NWE Cargoes.

Fuel Oil 1.0% Cargoes FOB NWE (PUAAM00): This assessment reflects a wide variety of specifications, normalized to material with a maximum sulfur content of 1%, density of up to 0.991 kg/l and a maximum viscosity of 380 CST (at 50 degrees Celsius), a maximum combined aluminum and silicon content of 60ppm, 30 degrees Celsius maximum pour point, flash minimum 65 degrees Celsius, CCR maximum 15%, ash maximum 0.1%, water maximum 0.5%, vanadium maximum 150 mg/kg, NCV minimum 9650 kcal/kg, asphaltenes maximum 7 %.

The assessment reflects the value of cargoes of 25,000 to 30,000 mt or 30,000 mt each, loading FOB basis Antwerp. Platts considers bids, offers and transactions into a range of NWE locations and normalizes these prices to basis Antwerp. The assessment represents EU-qualified material.

The assessment reflects material for delivery 10-25 days from date of publication, with value normalized to reflect the mean value of the delivery period. Platts currently publishes bids and offers for the following locations: Gothenburg, Pembroke and Rotterdam.

Fuel Oil 1.0% Barges (PUAAP00): This assessment reflects material with a maximum density of 0.991 kg/l and a viscosity of 380 CST (at 50 degrees Celsius) with a maximum combined aluminum and silicon content of 80ppm and a maximum sulfur content of 1%, 30 maximum pour point, flash minimum 60 degrees Celsius, CCR max 18%, ash maximum 0.15%, water maximum 0.5%, vanadium maximum 300 mg/kg, TSP 0.1%, zinc

maximum 15 mg/kg, phosphorus maximum 15 mg/kg, calcium maximum 30 mg/kg. Specifications otherwise typically conform to the ISO 8217: 2010 RMG reference.

The assessment reflects the value of barges of 1,000 mt each where the buyer specifies the actual size at the time of the deal, loading FOB Amsterdam-Rotterdam-Antwerp, basis Rotterdam, for loading 3-15 (Monday to Tuesday) or 5-15 (Wednesday through Friday) days forward.

Fuel Oil 3.5% Cargoes CIF Med (PUAAY00): This assessment reflects 3.5% maximum sulfur content with 380 CST maximum viscosity (at 50 degrees Celsius) and 0.991kg/l density with a maximum combined aluminum and silicon content of 60ppm, maximum 30 degrees pour point, minimum 60 degrees flash point, CCR maximum 18%, ash maximum 0.1%, water maximum 0.5%, vanadium maximum 350 mg/kg, TSP 0.1%, asphaltenes maximum 8 %, sodium maximum 100 mg/kg, acid number 2.5 mg/kg, zinc maximum 15 mg/kg, phosphorus maximum 15 mg/kg, calcium maximum 30 mg/kg, Free from used lubricating oils (ULO) (calcium > 30 and zinc > 15; or calcium > 30 and phosphorus > 15), H2S 2ppm max. The assessment reflects the value of cargoes of 25,000 to 30,000 mt or 30,000 mt each (although smaller sizes may be considered), delivered CIF basis Genoa/Lavera. The smaller size on CIF typically reflects local port constraints.

The assessment reflects material for delivery 10-25 days from date of publication, with value normalized to reflect the mean value of the delivery period.

Platts currently publishes bids and offers for the following locations: Algeciras, Barcelona, Ceuta, Genoa, Gibraltar, Malta and Tangier Med.

Buyers in the 3.5% Fuel Oil CIF Med cargoes Market on Close assessment process may request delivery onto multiple vessels, and such requests should not be unreasonably refused by the seller.

Platts understands that, in addition to delivery into shore tanks or a single vessel, delivery into multiple vessels is a recognized feature of this market.

In instances in which the buyer nominates multiple vessels to receive a cargo, ship-to-ship transfer costs would be for the buyer's account.

Platts expects the buyer to take delivery of the cargo during the original laycan period. Any demurrage costs due to late delivery of the cargo as a result of delivery onto multiple vessels should be for the buyer's account.

Fuel Oil 3.5% Cargoes FOB Med (PUAAZ00): This assessment is established using a freight differential to the CIF Med assessment, using a flat rate based on a basket of typical tanker routes, multiplied by the daily Worldscale rate assessed in Platts Dirty Tankerwire. Effective January 2, 2020, the Worldscale flat rate used to calculate the netback formula for 3.5% FOB Med Fuel Oil is \$6.84/mt.

The assessment reflects 3.5% maximum sulfur content with 380 CST maximum viscosity (at 50 degrees Celsius) and 0.991kg/l density with a maximum combined aluminum and silicon content of 60ppm, max 30 degrees pour point, minimum 60 degrees flash point, CCR maximum 18%, ash max 0.1%, water maximum 0.5%, vanadium maximum 350 mg/kg, TSP 0.1%, asphaltenes max 8 %, sodium max 100 mg/kg, acid number 2.5 mg/kg, zinc maximum 15 mg/kg, phosphorus maximum 15 mg/kg, calcium maximum 30 mg/kg, Free from used lubricating oils (ULO) (calcium > 30 and zinc > 15; or calcium > 30 and phosphorus > 15), H2S 2ppm maximum. The assessment reflects the value of cargoes of 25,000 to 30,000 mt.

The assessment reflects material for delivery 10-25 days from date of publication, with value normalized to reflect the mean value of the delivery period.

Fuel Oil 3.5% Cargoes CIF NWE (PUABA00): This assessment

reflects the following: viscosity of 650-700 CST, density of 0.991 kg/l maximum, 60ppm maximum aluminum and silicon, and a water content of 0.50%. Typically, standard cracked Russian quality M-100 is reflected in the assessment. The quality of M-100 may vary widely in density, viscosity, water content, and metals among other factors.

The assessment reflects the value of cargoes of 25,000 to 30,000 mt, delivered CIF NWE basis Rotterdam.

Timing: Reflects material for delivery 10-25 days from date of publication, with value normalized to reflect the mean value of the delivery period.

When the market is illiquid, CIF NWE value may be derived as a differential to 380 CST 3.5% FOB Rotterdam barges, reflecting blending economics, break-bulk cost and time gradients. Platts currently publishes bids and offers for the following locations: Amsterdam, Antwerp and Rotterdam.

Fuel Oil 3.5% Cargoes FOB NWE (PUABB00): This assessment reflects the following: viscosity of 650-700 CST, density of 0.991 kg/l maximum, 60ppm maximum aluminum and silicon, and a water content of 0.50%.

Typically, standard cracked Russian quality M-100 is reflected in the assessment.

Effective January 2, 2020, the Worldscale flat rate used to calculate the netback formula for FOB NWE 3.5% Fuel is \$8.60/mt.

These cargo assessments typically reflect parcels of 25,000 to 30,000 mt each, although smaller sizes may be considered, loading FOB Baltic ports, for loading 10-25 days from date of publication, with values normalized to the mid-point of this delivery period.

Platts recognizes that the quality of M-100 may vary widely

in density, viscosity, water content, and metals among other factors, and reflects typical levels on other relevant parameters.

Fuel Oil 3.5% Barges (PUABC00): This assessment reflects the value of 3.5% maximum sulfur content with 380 CST maximum viscosity (at 50 degrees C) and 0.991kg/l density with a maximum combined aluminum and silicon content of 80ppm, 30 max pour point, flash minimum 60 degrees Celsius, CCR maximum 18%, ash maximum 0.1%, water maximum 0.5%, vanadium maximum 300 mg/kg, TSP 0.1%, zinc maximum 15 mg/kg, phosphorus maximum 15 mg/kg, calcium maximum 30 mg/kg. Specifications otherwise typically conform to the ISO 8217: 2010 RMG reference.

Barge assessments reflect parcels of 2,000 to 5,000 mt each. Barges are traded typically in 2,000 mt lots where the buyer specifies the actual size at the time of the deal. In all cases the smallest tradeable size is considered to be the strongest indication of value, or 2,000 mt.

The assessment reflects the value of barges loading FOB basis Rotterdam, for loading 3-15 (Monday to Tuesday) or 5-15 (Wednesday through Friday) days forward, with value normalized to reflect the mean value of these loading ranges.

Barges typically trade for the front five days, middle five days or the back five days. Platts 3.5% barge assessment is based on bids/offers and deals for 5-day loading windows.

Fuel Oil 3.5% 500 CST FOB Rdam Barges (PUAGN00): This assessment reflects the value of 3.5% maximum sulfur content with 500 CST maximum viscosity (at 50 degrees C) and 1.010 kg/l density with a maximum combined aluminum and silicon content of 60ppm, 30 maximum pour point, flash minimum 60 degrees Celsius, CCR maximum 20%, ash maximum 0.15%, water maximum 0.5%, vanadium maximum 300 mg/kg, TSP 0.1%, zinc maximum 15 mg/kg, phosphorus maximum 15 mg/kg, calcium maximum 30 mg/kg.

Barge assessments reflect parcels of 2,000 to 5,000 mt each. Barges are traded typically in 2,000 mt lots where the buyer specifies the actual size at the time of the deal. In all cases the smallest tradeable size is considered to be the strongest indication of value, or 2,000 mt.

The assessment reflects the value of barges loading FOB basis Rotterdam, for loading 3-15 (Monday to Tuesday) or 5-15 (Wednesday through Friday) days forward, with value normalized to reflect the mean value of these loading ranges.

Barges typically trade for the front five days, middle five days or the back five days. Platts 3.5% barge assessment is based on bids/offers and deals for 5-day loading windows. When the market is illiquid, 3.5% 500 CST FOB Rdam Barge value may be derived as a differential to 380 CST 3.5% FOB Rotterdam barges.

FEEDSTOCKS

Assessment	CODE	Mavg	Pavg	Wavg	CONTRACT BASIS	LOCATION	DELIVERY PERIOD	MIN SIZE	MAX SIZE	CURRENCY	UOM	CONV
Straight Run 0.5-0.7%S FOB NWE cargo	PKABA00	PKABA03	ABWHG00	ABWHG03	FOB	NWE (Rotterdam)	10-25 days forward	25,000	55,000	US \$	MT	6.77
Straight Run 0.5-0.7% CIF Med Cargo	AAJNT00	AAJNU00			CIF	MED (Malta)	10-25 days forward	25,000	30,000	US \$	MT	6.77
VGO 0.5-0.6% Cargoes CIF NWE	AAHMZ00	AAHNA00			CIF	NWE (Rotterdam)	10-25 days forward	15,000	30,000	US \$	MT	6.84
VGO 0.5-0.6% FOB NWE	AAHMX00	AAHMY00	-	-	FOB	NWE (Rotterdam)	10-25 days forward	15,000	55,000	US \$	MT	6.84
VGO 2.0%S CIF NWE	AAHND00	AAHNE00	-	-	CIF	ARA (NWE)	10-25 days forward	15,000	35,000	US \$	MT	6.84
VGO 2.0%S FOB NWE	AAHNB00	AAHNC00	-	-	FOB	NWE (Rotterdam)	10-25 days forward	15000	55000	US \$	MT	6.84
VGO 2.0%S FOB Rdam barge	AAHNI00	AAHNJ00	-	-	FOB	ARA, NWE (Rotterdam)	3-15 days forward (Monday-Tuesday) 5-15 days forward (Wednesday-Friday)	1000	5000	US \$	MT	6.84
LSVGO Black Sea	ABBAD00	ABBAD03			FOB	Black Sea (basket of Black Sea ports)		15000	35000	US \$	MT	6.84
HSVGO Black Sea	ABBAC00	ABBAC03			FOB	Black Sea (basket of Black Sea ports)		15000	35000	US \$	MT	6.84
VGO 0.8% CIF Med Cargo	ABBAB00	ABBAB03			CIF	MED (Malta)	10-25 days	15000	35000	US \$	MT	6.84
VGO 2% MAX CIF Med Cargo	ABBAA00	ABBAA03			CIF	MED (Malta)	10-25 days	15000	35000	US \$	MT	6.84
VGO 0.5-0.6% Barges	AAHNF00	AAHNG00			FOB	NWE (Rotterdam)	3-15 days forward (Monday-Tuesday) 5-15 days forward (Wednesday-Friday)	1000	5000	US \$	MT	6.84
VGO 2% MAX Barges	AAHNI00	AAHNJ00			FOB	ARA (Rotterdam)	3-15 days forward (Monday-Tuesday) 5-15 days forward (Wednesday-Friday)	1000	5000	US \$	MT	6.84

Feedstocks

Platts European refinery feedstocks assessments represent the value of straight-run fuel oil, unless otherwise stated. In the vacuum gasoil and low sulfur straight-run markets, a multitude of qualities trade and varying qualities are considered in the assessment process. Platts may in some cases incorporate freight differentials in establishing FOB to CIF spreads. Platts assesses a number of European freight routes in Platts Dirty Tankerwire, which typically link FOB and CIF Northwest European, as well as FOB Black Sea and CIF Mediterranean, refinery feedstocks assessments.

Operational Tolerance: Platts refinery feedstocks assessments typically price main quantity and operational tolerance as a full EFP.

Straight-run 0.5-0.7% Cargoes FOB NWE (PKABA00): This assessment reflects the value of Low Sulfur Straight-Run fuel oil (LSSR) from Northwest Europe with the following specifications: sulfur content 0.5-0.7%, normalized to 0.6% CCR maximum 7, viscosity 200 CST maximum (at 50 degrees Celsius), vanadium 10ppm, sodium 10ppm and nickel 10ppm. Platts reflects a density range of 0.920-0.950 kg/l at 15 degrees Celsius. A conversion factor between barrels and metric tons of 6.77 is used, in line with prevailing market standards. Cargo assessments typically reflect parcels of 25,000 to 30,000 mt each within NWE, but cargoes of up to 55,000 mt may be taken into account when arbitrage openings present themselves. The assessment reflects cargoes for loading FOB NWE basis Rotterdam, for loading 10-25 days from date of publication, with value normalized to reflect the mean value of the delivery period.

LSSR is commonly traded at a differential to ICE Brent crude oil

futures with the prevailing value of ICE Brent at 16:30 London time used, together with assessed differentials, in establishing an outright level for assessment. The ICE trading month used in the calculation is generally the front month, but can also be the second month where this reflects trading activity. A conversion factor of 6.77 is used to convert the \$/b value to \$/mt.

Straight Run 0.5-0.7% CIF Med Cargo (AAJNT00): This assessment reflects delivered cargoes of Low Sulfur Straight Run (LSSR) with the following specifications: sulfur content 0.5-0.7%, normalized to 0.6%, although higher sulfur material may be taken into account where relevant, CCR maximum 7, density 0.920-0.950 kg/l at 15 degrees, viscosity 200 CST maximum at 50 degrees, vanadium 10ppm, sodium 15ppm, nickel 20ppm. The CIF Mediterranean LSSR cargo assessment typically reflects parcels of 25,000-30,000 mt. The assessment reflects cargoes for delivery CIF basis Malta 10-25 days from date of publication,

with value normalized to reflect the mean value of the delivery period.

Platts currently publishes bids and offers for the following locations: Agioi Theodoroi, Elefsis, Izmit, Lavera, Malta, Sarroch and Tarragona.

VGO 0.5-0.6% Cargoes CIF NWE (AAHMZ00): Platts reflects European CIF basis ARA Vacuum Gasoil (VGO) cargo sizes of 15,000 to 35,000 mt, normalized to 30,000 mt. Platts considers CIF NWE (basis Rotterdam) and FOB NWE (basis Baltic Sea) as related markets which are frequently linked by freight costs. Platts accepts bids and offers for cargoes of VGO on both a CIF and FOB basis in Northern Europe. This assessment represents the value of VGO cargoes of sulfur: 0.6% max; density: 0.92 kg/l max; metals: iron 2 ppm max, sodium 2 ppm max, nickel 1 ppm max, copper 1 ppm max, vanadium 1 ppm max; CCR: 0.5% max; nitrogen: 1500 ppm max; pour point: 45 degrees Celsius max; flash point: 100 degrees Celsius min; aniline: 80 degrees Celsius min; asphaltenes: 700ppm max; TAN: 0.5 mg KOH/g max.

Platts also considers other merchantable HSVGO and LSVGGO specifications in its assessment process, and may normalize to the published standard specifications.

VGO 0.5-0.6% Cargoes FOB NWE (AAHMX00): Platts assessments of FOB NWE HSVGO and LSVGGO reflect the value of FOB cargoes loading in the Baltic. This is aligned with conventions for similar assessments for ULSD and fuel oil, which are labelled as FOB NWE and are assessed basis FOB Baltic ports. The basket of Baltic Sea ports for both HSVGO and LSVGGO is as follows: St.Petersburg, Ust Luga, Vysotsk, Sillamae and Tallinn. Oil loading elsewhere in Northern Europe will continue to be reflected in the FOB Baltic assessment, but will be normalized back to the Platts basket of ports. Platts considers CIF NWE (basis Rotterdam) and FOB Baltic as related markets which are frequently linked by freight costs. Platts accepts bids and offers for cargoes of VGO on both a CIF and FOB basis in Northern Europe.

This assessment represents the value of VGO cargoes of sulfur: 0.6% max; density: 0.92 max; metals: iron 2 ppm max, sodium 2 ppm max, nickel 1 ppm max, copper 1 ppm max, vanadium 1 ppm max; CCR: 0.5% max; Nitrogen: 1500 ppm max; pour point: 45 degrees Celsius max; flash point: 100 degrees Celsius min; aniline: 80 degrees Celsius min; asphaltenes: 700ppm max; TAN: 0.5 mg KOH/g max.

Platts also considers other merchantable HSVGO and LSVGGO specifications in its assessment process, and may normalize to the published standard specifications. Cargo assessments reflect parcels of 15,000 to 35,000 mt, normalized to 30,000 mt. FOB cargoes of up to 55,000 mt may be considered, but may be subject to normalization.. The assessment represents cargoes loading 10-25 days from date of publication, with value normalized to reflect the mean value of the loading window.

LSVGO Black Sea (ABBAD00) : This assessment reflects the value of LSVGGO cargoes loading in the Black Sea with the following specifications: sulfur: 0.80% max; density: 0.92 kg/l max; metals: iron 2 ppm max, sodium 2 ppm max, nickel 1 ppm max, copper 1 ppm max, vanadium 1 ppm max; CCR: 0.5% max; nitrogen: 1500 ppm max; pour point: 45 degrees Celsius max; flash point: 100 degrees Celsius min; aniline: 80 degrees Celsius min; asphaltenes: 700ppm max; TAN: 0.5 mg KOH/g max.

Platts will continue to consider other merchantable LSVGGO specifications in its assessment process, and may normalize to the published standard specifications.

HSVGO Black Sea (ABBAC00): This assessment reflects the value of VGO cargoes with the following specifications: sulfur: 2.00% max; density: 0.92 kg/l max; metals: iron 2 ppm max, sodium 2 ppm max, nickel 1 ppm max, copper 1 ppm max, vanadium 1 ppm max; CCR: 0.5% max; nitrogen: 1700 ppm max; pour point: 45 degrees Celsius max; flash point: 100 degrees Celsius min; aniline: 75 degrees Celsius min; Asphaltenes: 700ppm max; TAN: 0.5 mg KOH/g max.

Platts will continue to consider other merchantable HSVGO specifications in its assessment process, and may normalize to the published standard specifications.

VGO 2% MAX Cargoes CIF NWE (AAHND00): Platts assessments of CIF NWE HSVGO reflect the value of CIF cargoes of VGO loading in the Baltic. The loading basket of Baltic Sea ports for both HSVGO and LSVGGO is as follows: St.Petersburg, Ust Luga, Vysotsk, Sillamae and Tallinn. Oil loading elsewhere in Northern Europe will continue to be reflected in the CIF NWE assessment, but will be normalized back to the Platts basket of ports. Platts considers CIF NWE (basis Rotterdam) and CIF related markets which are frequently linked by freight costs. Platts accepts bids and offers for cargoes of VGO on both a CIF and FOB basis in Northern Europe.

This assessment represents the value of VGO cargoes of sulfur: 2% max; density: 0.92 kg/l max; metals: iron 2 ppm max, sodium 2 ppm max, nickel 1 ppm max, copper 1 ppm max, vanadium 1 ppm max; CCR: 0.5% max; nitrogen: 1700 ppm max; pour point: 45 degrees Celsius max; flash point: 100 degrees Celsius min; aniline: 75 degrees Celsius min; asphaltenes: 700ppm max; TAN: 0.5 mg KOH/g max.

Platts will continue to consider other merchantable HSVGO and LSVGGO specifications in its assessment process, and may normalize to the updated specifications. Cargo assessments reflect parcels of 15,000 to 35,000 mt in size, normalized to 30,000 mt, for delivery CIF NWE basis ARA, for delivery 10-25 days from date of publication with value normalized to reflect the mean value of the delivery period.

VGO 2% MAX Cargoes FOB NWE (AAHNB00): This is aligned with conventions for similar assessments for ULSD and fuel oil, which are labelled as FOB NWE and are assessed basis FOB Baltic ports. Platts assessments of FOB NWE HSVGO reflect the value of FOB cargoes of VGO loading in the Baltic. The basket of Baltic Sea ports for both HSVGO and LSVGGO is as follows: St.Petersburg, Ust Luga, Vysotsk, Sillamae and Tallinn.

Oil loading elsewhere in Northern Europe will continue to be reflected in the FOB Baltic assessment, but will be normalized back to the Platts basket of ports. Platts considers CIF NWE (basis Rotterdam) and FOB Baltic as related markets which are frequently linked by freight costs. Platts accepts bids and offers for cargoes of VGO on both a CIF and FOB basis in Northern Europe.

This assessment represents the value of VGO cargoes of sulfur: 2% max; density: 0.92 kg/l max; metals: iron 2 ppm max, sodium 2 ppm max, nickel 1 ppm max, copper 1 ppm max, vanadium 1 ppm max; CCR: 0.5% max; nitrogen: 1700 ppm max; pour point: 45 degrees Celsius max; flash point: 100 degrees Celsius min; aniline: 75 degrees Celsius min; asphaltenes: 700ppm max; TAN: 0.5 mg KOH/g max.

Platts will continue to consider other merchantable HSVGO and LSVGGO specifications in its assessment process, and may normalize to the updated specifications. Cargo assessments reflect parcels of 15,000 to 35,000 mt, normalized to 30,000 mt. Platts may consider FOB cargoes of up to 55,000 mt, but may normalize these back to a 30,000 mt standard. The assessment represents cargoes loading FOB NWE basis Rotterdam, for loading 10-25 days from date of publication, with value normalized to reflect the mean value of the loading window.

VGO 2% MAX CIF Med Cargo (ABBAA00): Platts assessments of CIF MED HSVGO reflect the value of CIF cargoes of VGO loading in the Med. This assessment reflects delivered cargoes of HSVGO with the following specifications: sulfur content 2%; density: 0.92 kg/l max; metals: iron 2 ppm max, sodium 2 ppm max, nickel 1 ppm max, copper 1 ppm max, vanadium 1ppm max; CCR: 0.5% max; nitrogen: 1700 ppm max; pour point: 45 degrees Celsius max; flash point: 100 degrees Celsius min; aniline: 75 degrees Celsius min; asphaltenes: 700ppm max; TAN: 0.5 mg KOH/g max.

VGO 0.8% CIF Med Cargo (ABBAB00): Platts assessments of CIF MED HSVGO reflect the value of CIF cargoes of VGO loading in the Med. This assessment reflects delivered cargoes of LSVGGO with the following specifications: sulfur: 0.80% max; density: 0.92 kg/l max; metals: iron 2 ppm max; sodium 2 ppm max; nickel 1 ppm max; copper 1 ppm max; vanadium 1ppm max; CCR: 0.5% max; nitrogen: 1,500 ppm max; pour point: 45 degrees Celsius max; flashpoint: 100 degrees Celsius min; aniline: 80 degrees Celsius min; asphaltenes: 700 ppm max; TAN: 0.5 mg KOH/g max.

VGO 0.5-0.6% Barges (AAHNF00): This assessment represents the value of VGO barges of sulfur: 0.5-0.6%; Density: 0.92 kg/l max; Metals: iron 2 ppm max, sodium 2 ppm max, nickel 1 ppm max, copper 1 ppm max, vanadium 1ppm max; CCR: 0.5% max; nitrogen: 1500 ppm max; pour point: 45 degrees Celsius max;

flash point: 100 degrees Celsius min; aniline: 80 degrees Celsius min; asphaltenes: 700ppm max; TAN: 0.5 mg KOH/g max.

Platts will continue to consider other merchantable specifications in its assessment process, and may normalize to the updated specifications. Barge assessments reflect parcels of 1,000 to 5,000 mt each, loading FOB ARA basis Rotterdam, for loading 3-15 (Monday to Tuesday) or 5-15 (Wednesday through Friday) days forward.

VGO 2% MAX Barges (AAHNI00): This assessment represents the value of VGO barges of sulfur: 2% max; density: 0.92 kg/l max; metals: iron 2 ppm max, sodium 2 ppm max, nickel 1 ppm max, copper 1 ppm max, vanadium 1ppm max; CCR: 0.5% max; nitrogen: 1700 ppm max; pour point: 45 degrees Celsius max; flash point: 100 degrees Celsius min; aniline: 75 degrees Celsius min; asphaltenes: 700ppm max; TAN: 0.5 mg KOH/g max.

Platts will continue to consider other merchantable specifications in its assessment process, and may normalize to the updated specifications. Barge assessments reflect parcels of 1,000 to 5,000 mt each, loading FOB ARA basis Rotterdam, for loading 3-15 (Monday to Tuesday) or 5-15 (Wednesday through Friday) days forward.

REVISION HISTORY

November 2020: Adds section on VLGC LPG freight. Clarifies language around vessel sizes in the Northwest European naphtha market. Adds section on EUR1 certificates to West Mediterranean butane market.

October 2020: Updated fuel oil barge nomination procedures to reflect Antwerp as a basis port for the 0.5%S marine fuel barges. Added Antwerp as a basis port in the description of the 0.5%S marine fuel barges.

September 2020: Updated to reflect IGS requirement for Naphtha Cargoes CIF NWE (PAAAL00) and changes to the Diesel 10ppm UK Cargoes CIF NWE (AAVBH00) specifications. Updated list of ports reflected in **ULSD 10 ppm Cargoes CIF NWE (AAVBG00)**. Amends typographical errors on Butane CIF Morocco codes (ABTMA00).

July 2020: Platts completed the annual readthrough and made language clarifications. Moved CIF refined products cabotage language around country of origin from diesel section to the general section reflecting fact it applies to all markets. Removed duplicate language in gasoil section. Confirmed consistent seasonal change language in gasoline and diesel and clarified text to reflect this properly. Standardized spelling and capitalization in fuel oil and feedstocks section. Platts updated standards around new build vessels in the Jet Fuel Market. Platts amended volume range for Butane FOB West Med Coaster (PMAAM00) assessment in line with methodology changes introduced in February.

Jun 2020: Updated language around cargo nomination to reflect working day clarification.

May 2020: Updated the WS rates for fuel oil assessments to represent 2020 values. Added further expectations on performance to the Ship-to-Ship transfer section.

April 2020: Updated the FOB Rotterdam barge fuel oil nomination procedures. Added section on UK ULSD MOPs differential.

March 2020: Added Butane CIF Morocco (ABTMA00). Fixes typo on E10 gasoline barge conversion factor. Also updated Marine Fuel 0.5% specification to reflect minimum 30 CST viscosity. Also edited CN Codes section of LSFO methodology to show updated CN Codes.

January 2020: Updated all EMEA products to reflect methodology changes and freight rates for January 2020. This included changes to butane cargo sizes, gasoline and naphtha organic chloride content, as well as amendments to 0.5% Marine Fuel Oil assessments, and changes to WAF gasoil methodology. Platts has also updated the basis port netbacks for Gasoil 0.1%, replacing Malta as a load port with Sarroch.

October 2019: The maximum size on 3.5% FOB Rotterdam fuel oil barges [PUABC00] was increased from 5,000 to 10,000, reflecting the fact Platts publishes bids and offers for up to five lots of 2,000 mt.

September 2019: Platts completed an annual update to sections 1 to 6 of Platts Methodology and Specifications Guides in April 2019, and moved these sections into a standalone Methodology Guide. Platts completed an annual review of the Europe and Africa refined oil products specifications guide, and reviewed all content, corrected typos and made minor edits to language. Platts updated the guide to reflect: Fuel Oil 1.0% Cargoes CIF Med was updated to correct a typo which stated a Conradson Carbon Residue (CCR) minimum of 15%. As with all other 1% specifications, this now states a maximum CCR of 15%. ULSD 10ppmS CIF NWE Basis Le Havre Cargo (AAWZC00) was updated to reflect applicable freight rates. Jet Barges FOB FARAG (PJABA00) was updated to reflect the correct labelling; the wording reflects in the correct tense the 2018 methodology update.

August 2019: Platts updated this guide to reflect changes to the Butane FOB West Med Coaster (PMAAM00) assessment and the addition of the Gasoline Eurobob E10 FOB AR Barge (AGEFA00) assessment. The guide was also updated to remove language concerning prior version changes from the following assessments: Butane FOB NWE Seagoing (PMAAL00), Butane CIF NWE Large Cargo (PMAAK00), Propane FOB NWE Seagoing (PMABB00) and Propane CIF NWE Large Cargo (PMABA00). The Propane CIF 1,000-3,000 MT (PMAAZ00) assessment was removed. Platts completed an annual update to sections 1 to 6 of Platts Methodology and Specifications Guides in April 2019, and moved these sections into a standalone Methodology Guide.

July 2019: Platts updated this guide to reflect the fact 0.1% MGO barge assessment (LGARD00) was now on eWindow.

June 2019: Platts updated this guide to incorporate the switch to reflecting CN code 2707 9999 in European LSFO assessments. Platts also added a section to include the new 0.1% MGO barge assessment (LGARD00)

February 2019: Platts updated this Guide to include Marine Fuel 0.5% FOB Rotterdam Barges (PUMFD00).

January 2019: Platts updated the 2019 Worldscale rates to incorporate changes from 2018 to 2019. Platts updated the guide to incorporate the new FOB Rotterdam Marine Fuel 0.5% Barge assessment.

November 2018: Platts updated its CIF Refined Product Cargoes section and clarified procedures for delivery of 3.5% CIF Med cargoes onto vessels. June 2018: Platts completed an annual update to the Europe & Africa Refined Oil Products Guide in June 2018. In this update, Platts reviewed all content. Platts updated the guide to reflect and incorporate new 2016 Worldscale flat rates where applicable. Also, the description of Platts Diesel 10ppm NWE Cargoes CIF NWE net-forward was corrected. Also, language in the Fuel Oil and Feedstocks sections was updated and clarified. Biddable and offerable ports have been added

for gasoline, jet, diesel, gasoil, VGO and fuel oil. Language on diesel CP options was further clarified. Also, the description of the minimum propane content of the Platts Propane FOB NWE Seagoing, Propane FOB ARA, Propane FCA ARA, Propane W Med FOB Ex-Ref/Stor and Propane W Med FCA Ex-Ref/Stor assessments was corrected.

June 2018: Platts completed an annual update to the Europe & Africa Refined Oil Products Guide in June 2018. In this update, Platts reviewed all content. Platts updated the guide to reflect and incorporate new 2016 Worldscale flat rates where applicable. Also, the description of Platts Diesel 10ppm NWE Cargoes CIF NWE net-forward was corrected. Also, language in the Fuel Oil and Feedstocks sections was updated and clarified. Biddable and offerable ports have been added for gasoline, jet, diesel, gasoil, VGO and fuel oil. Language on diesel CP options was further clarified. Also, the description of the minimum propane content of the Platts Propane FOB NWE Seagoing, Propane FOB ARA, Propane FCA ARA, Propane W Med FOB Ex-Ref/Stor and Propane W Med FCA Ex-Ref/Stor assessments was corrected.

September 2017: Platts completed an annual update to the Europe & Africa Refined Oil Products Guide in September 2017. In this update, Platts reviewed all content. Platts updated guidance around how to report information and expectations for contactability, as well as updating contact details for Platts editors included in the guide. Guidance around seasonal switches in diesel and gasoline fuel grades was also clarified. The port of Terneuzen has also been added to the gasoline barge assessment, and Platts methodology guidance has been adjusted accordingly. Platts guidance on demurrage in the naphtha market has also been updated. Specifications on naphtha cargoes in the Med were also clarified. Platts treatment of Combined Nomenclature (CN) codes was also clarified. Platts also removed references to specification items for Gasoil 0.1% Cargoes CIF NWE that included typographical errors. Platts also updated references to jet fuel assessments to reflect the Defence Standard 91-091 nomenclature as defined by the UK

Ministry of Defence and the Joint Fuelling System Checklist.

March 2017: Platts clarified a Worldscale rate used to calculate the netback formula for FOB Med Naphtha Cargoes. Previously, an incorrect value for the 2017 FOB Med naphtha cargo freight netback was published.

January 2017: Platts updated Worldscale rates to incorporate changes from 2016 to 2017. Platts updated its ULSD methodology to reflect the growing size of the vessels supplying the market. As such, the parcel size reflected in cargo assessments was increased to 30,000 mt, from 20,000 mt. LPG methodology was also updated to reflect the discontinuation of several freight based assessments, and the name changes of several more. Fuel oil methodology in NWE and the Med was updated to reflect changes in the treatment of freight and VGO density specifications in NWE were updated to reflect prevailing market standards. From January 2017, the CIF NWE assessment is calculated as a freight differential to the FOB NWE assessment.

November 2016: Platts completed an annual update to the Europe & Africa Refined Oil Products Guide in November 2016. Details of Platts Europe and Africa bunker fuel assessments, which are now included in a separate global methodology guide for bunker fuel, were removed. Platts included previously published guidance regarding sediment and ULO in the merchantability of fuel oil reflected in assessments. Platts also updated language regarding operational tolerance for cargoes and barges to standardize descriptions across sections where possible, and incorporated a series of updates to its LPG assessments for the region. Platts also made a number of typographical edits for style and clarity.

February 2016: Platts updated the guide to reflect a change in its FOB ARA 50ppm gasoil barge methodology change and incorporate new 2016 Worldscale flat rates where applicable.

November 2015: Platts updated the guide to include new

gasoline assessment methodology for West Africa Gasoline FOB NWE and West Africa Gasoline CIF West Africa. Platts also made updates to the gasoil and diesel sections, noting guidance on clear and bright specifications for ultra low sulfur diesel, requests to dye and new FBT standards in the UK. Platts added a reference to previously published standards for CIF cargo quality testing. Platts noted previously issued guidance that jet barge bids may not be for one port only, and noted guidance for vessel size expectations for cargoes in various cargo assessments, particularly in relation to port destination changes requested by a buyer under charterparty options. Platts updated to the high sulfur fuel oil specification sections of the guide. Platts added details of a new assessment of ultra low sulfur bunker fuel. Platts amended the list of ports where 1% bunker fuel is assessed to better reflect Platts updated assessments.

July 2015: Platts completed an annual update to the Europe & Africa Refined Oil Products Guide in July 2015. In this update, Platts reviewed all content. Platts updated guidance around how to report information and expectations for contactability. Platts also consolidated guidance regarding review of reported trades. In the specifications section of the guide, In specifications, Platts updated this guide to reflect changes in assessment sizes for European naphtha cargoes, diesel cargoes and barges, and gasoil barges, as well as including the Platts assessed specification for CIF Northwest naphtha cargoes. Platts removed all references to Falmouth bunker assessments, which were discontinued in July 2015. Platts incorporated guidance around operational tolerance for naphtha and nomination processes for ULSD and gasoil barges that had previously been published in subscriber notes. Platts removed descriptions for swaps assessments where those definitions are already provided in its Platts Forward Curve methodology guide.

December 2014: Platts updated this guide to reflect the addition of a new FOB AR reformat assessment and also to include a new fuel oil barge assessment reflecting Fuel Oil 3.5% 500 CST specifications. Platts also updated this guide to reflect a change in methodology in the CIF NWE naphtha assessment to

reflect a broader cargo size range and also to reflect an increase in the cargo size reflected within the ULSD 10ppm CIF NWE assessment. Platts also updated the guide to reflect an update to the NWE LS and HS VGO specifications and also 2015 netback calculations for refined products. Platts added a notation for its 500 CST bunker fuel assessment. Platts also updated this guide to reflect methodology changes for 0.1% and ULSD 10ppm FOB ARA barge assessments. These updates included amending the size, loading dates and load port locations reflected in both assessments. Finally, Platts updated freight rates for netbacks described in this guide to 2015 value.

June 2014: Platts completed an annual update to the Europe & Africa Refined Oil Products Guide in June 2014. In this update, Platts reviewed all content. The guide was updated to include a description of seasonal specification changes in the European gasoline market; remove database codes for monthly averages associated with Month-To-Date cumulative averages for LPG (monthly averages for cumulative MTD assessments were discontinued in July 2013); remove description of jet fuel Mediterranean assessments that were previously discontinued; and remove codes for discontinued MDO assessments in Europe and Africa. Platts added more information around typical size operational tolerance in the cargo market; the inclusion of Tangiers, Morocco as a location considered in Mediterranean cargo assessments for gasoline, middle distillates and fuel oil and clarified wording around CIF cargo destination deviations. Gasoline barge names were clarified in text to be simply "AR",

not "ARA" where they had been erroneously labelled. Platts consolidated guidelines around publishing information during the MOC assessment process into the MOC Data Publishing Principles section, and incorporated clarification guidance about how to express interest in bids and offers that were published in January 2014 and May 2014.

March 2014: Platts updated the Europe & Africa Refined Oil Products Guide in February 2014. The updated guide includes nomination procedures for cargoes and barges that were published in an older copy of the guide, but were omitted from recent issues.

February 2014: Platts updated the Europe & Africa Refined Oil Products Guide in February 2014. The updated guide provides updates to 2014 netback calculations, clarifies wording and terminology in the bunker fuel section and updates the naphtha methodology to include guidance on inert gas system vessels that was originally published in 2010.

November 15, 2013: Platts updated this guide, making minor edits through the text, particularly clarifying statements regarding how product assessments are normalized to reflect the mean value of loading and delivery dates. In this update, Platts noted that ex-duty cargoes of jet fuel will be reflected in its benchmark Jet CIF Northwest Europe Cargo assessment with effect from January 1, 2014. Platts also incorporated a clarification regarding how measurements of the quantity

delivered are typically conducted in the ARA barge market. Platts also removed references to MDO assessments, which have been suspended.

September 2, 2013: Platts discontinued its European Marine Diesel assessments. Platts had been assessing MDO for several ports in the EMEA region since 1986. Since that time, demand for MDO had generally been replaced by demand for marine gasoil, or other similar fuels. As of mid-2013, MDO typically accounted for less than 1% of bunker fuel supplied at major ports in the EMEA region. Prior to the discontinuation, specifications had generally conformed with that for DMB. Kinematic viscosity at 40 Celsius, maximum 11 cst, Flash point 60 degrees celsius minimum; Pour point (upper) winter quality 0 degrees celsius; pour point upper summer quality 6 degrees celsius, ash 0.01% maximum, sulfur, maximum 2%; water, 0.3% maximum, zinc maximum 15 mg/kg, phosphorus maximum 15 mg/kg, calcium maximum 30 mg/kg.

August 2013: Platts revamped all Oil Methodology and Specifications Guides, including its Europe & Africa Refined Oil Products Guide, in August 2013. This revamp was completed to enhance the clarity and usefulness of all guides, and to introduce greater consistency of layout and structure across all published methodology guides. Methodologies for market coverage were not changed through this revamp, unless specifically noted in the methodology guide itself.