ARGUS MARINE FUELS

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LAST UPDATED: MARCH 2020
The most up-to-date Argus Marine Fuels methodology is available on
www.argusmedia.com
Methodology overview

Methodology rationale
Argus strives to construct methodologies that reflect the way the market trades. Argus aims to produce price assessments which are reliable and representative indicators of commodity market values and are free from distortion. As a result, the specific currencies, volume units, locations and other particulars of an assessment are determined by industry conventions.

In the marine fuels markets, Argus publishes physical market prices in the open market as laid out in the specifications and methodology guide. Argus uses the trading period deemed by Argus to be most appropriate, in consultation with industry, to capture market liquidity.

In order to be included in the assessment process, deals must meet the minimum volume, delivery, timing and specification requirements in our methodology. In illiquid markets, and in other cases where deemed appropriate, Argus assesses the range within which product could have traded by applying a strict process outlined later in this methodology.

Survey process
Argus price assessments are informed by information received from a wide cross section of market participants, including producers, consumers and intermediaries. Argus reporters engage with the industry by proactively polling participants for market data. Argus will contact and accept market data from all credible market sources including front and back office of market participants and brokers. Argus will also receive market data from electronic trading platforms and directly from the back offices of market participants. Argus will accept market data by telephone, instant messenger, email or other means.

Argus encourages all sources of market data to submit all market data to which they are a party that falls within the Argus stated methodology guide. Argus uses the trading period deemed by Argus to be most appropriate, in consultation with industry, to capture market liquidity.

Throughout all markets, Argus is constantly seeking to increase the number of companies willing to provide market data. Reporters are mentored and held accountable for expanding their pool of contacts. The number of entities providing market data can vary significantly from day to day based on market conditions.

For certain price assessments identified by local management, if more than 50pc of the market data involved in arriving at a price assessment is sourced from a single party the supervising editor will engage in an analysis of the market data with the primary reporter to ensure that the quality and integrity of the assessment has not been affected.

Market data usage
In each market, Argus uses the methodological approach deemed to be the most reliable and representative for that market. Argus will utilise various types of market data in its methodologies, to include:

- Transactions
- Bids and offers
- Other market information, to include spread values between grades, locations, timings, and many other data.

In many markets, the relevant methodology will assign a relatively higher importance to transactions over bids and offers, and a relatively higher importance to bids and offers over other market information. Certain markets however will exist for which such a hierarchy would produce unreliable and non-representative price assessments, and so the methodology must assign a different relative importance in order to ensure the quality and integrity of the price assessment. And even in markets for which the hierarchy normally applies, certain market situations will at times emerge for which the strict hierarchy would produce non-representative prices, requiring Argus to adapt in order to publish representative prices.

Verification of transaction data
Reporters carefully analyse all data submitted to the price assessment process. These data include transactions, bids, offers, volumes, counterparties, specifications and any other information that contributes materially to the determination of price. This high level of care described applies regardless of the methodology employed. Specific to transactions, bids, and offers, reporters seek to verify the price, the volume, the specifications, location basis, and counterparty. In some transactional average methodologies, reporters also examine the full array of transactions to match counterparties and arrive at a list of unique transactions. In some transactional average methodologies, full details of the transactions verified are published electronically and are accessible by subscribers. The deals are also published in the daily report.

Several tests are applied by reporters in all markets to transactional data to determine if it should be subjected to further scrutiny. If a transaction has been identified as failing such a test, it will receive further scrutiny. For assessments used to settle derivatives and for many other assessments, Argus has established internal procedures that involve escalation of inquiry within the source’s company and escalatin review within Argus management. Should this process determine that a transaction should be excluded from the price assessment process, the supervising editor will initiate approval and, if necessary, documentation procedures.

Primary tests applied by reporters
- Transactions not transacted at arm’s length, including deals between related parties or affiliates.
- Transaction prices that deviate significantly from the mean of all transactions submitted for that day.
- Transaction prices that fall outside of the generally observed lows and highs that operated throughout the trading day.
- Transactions that are suspected to be a leg of another transaction or in some way contingent on an unknown transaction.
- Single deal volumes that significantly exceed the typical transaction volume for that market.
- Transaction details that are identified by other market participants as being for any reason potentially anomalous and perceived by Argus to be as such.
• Transaction details that are reported by one counterparty differently than the other counterparty.
• Any transaction details that appear to the reporter to be illogical or to stray from the norms of trading behaviour. This could include but is not limited to divergent specifications, unusual delivery location and counterparties not typically seen.
• Transactions that involve the same counterparties, the same price and delivery dates are checked to see that they are separate deals and not one deal duplicated in Argus records.

Secondary tests applied by editors for transactions identified for further scrutiny

Transaction tests
• The impact of linkage of the deal to possible other transactions such as contingent legs, exchanges, options, swaps, or other derivative instruments. This will include a review of transactions in markets that the reporter may not be covering.
• The nature of disagreement between counterparties on transactional details.
• The possibility that a deal is directly linked to an offsetting transaction that is not publicly known, for example a "wash trade" which has the purpose of influencing the published price.
• The impact of non-market factors on price or volume, including distressed delivery, credit issues, scheduling issues, demurrage, or containment.

Source tests
• The credibility of the explanation provided for the outlying nature of the transaction.
• The track record of the source. Sources will be deemed more credible if they
  • Regularly provide transaction data with few errors.
  • Provide data by Argus’ established deadline.
  • Quickly respond to queries from Argus reporters.
  • Have staff designated to respond to such queries.
• How close the information receipt is to the deadline for information, and the impact of that proximity on the validation process.

Assessment guidelines
When insufficient, inadequate, or no transaction information exists, or when Argus concludes that a transaction based methodology will not produce representative prices, Argus reporters will make an assessment of market value by applying intelligent judgement based on a broad array of factual market information. Reporters must use a high degree of care in gathering and validating all market data used in determining price assessments, a degree of care equal to that applying to gathering and validating transactions. The information used to form an assessment could include deals done, bids, offers, tenders, spread trades, exchange trades, fundamental supply and demand information and other inputs.

The assessment process employing judgement is rigorous, replicable, and uses widely accepted valuation metrics. These valuation metrics mirror the process used by physical commodity traders to internally assess value prior to entering the market with a bid or offer. Applying these valuation metrics along with sound judgement significantly narrows the band within which a commodity can be assessed, and greatly increases the accuracy and consistency of the price series. The application of judgement is conducted jointly with the supervising editor, in order to be sure that guidelines below are being followed. Valuation metrics include the following:

Relative value transactions
Frequently transactions occur which instead of being an outright purchase or sale of a single commodity, are instead exchanges of commodities. Such transactions allow reporters to value less liquid markets against more liquid ones and establish a strong basis for the exercise of judgment.

• Exchange one commodity for a different commodity in the same market at a negotiated value.
• Exchange delivery dates for the same commodity at a negotiated value.
• Exchange a commodity in one location for the same commodity at another location at a negotiated value.

Bids and offers
If a sufficient number of bids and offers populate the market, then in most cases the highest bid and the lowest offer can be assumed to define the boundaries between which a deal could be transacted.

Comparative metrics
The relative values between compared commodities are readily discussed in the market and can be discovered through dialogue with market participants. These discussions are the precursor to negotiation and conclusion of transactions.

• Comparison to the same commodity in another market centre.
• Comparison to a more actively traded but slightly different specification commodity in the same market centre.
• Comparison to the same commodity traded for a different delivery timing.
• Comparison to the commodity’s primary feedstock or primary derived product(s).
• Comparison to trade in the same commodity but in a different modality (as in barge versus oceangoing vessel) or in a different total volume (as in full cargo load versus partial cargo load).

Volume minimums and transaction data thresholds
Argus typically does not establish thresholds strictly on the basis of a count of transactions, as this could lead to unreliable and non-representative assessments and because of the varying transportation infrastructure found in all commodity markets. Instead, minimum volumes are typically established which may apply to each transaction accepted, to the aggregate of transactions, to transactions which set a low or high assessment or to other volumetrically relevant parameters.
For price assessments used to settle derivatives, Argus will seek to establish minimum transaction data thresholds and when no such threshold can be established Argus will explain the reasons. These thresholds will often reflect the minimum volumes necessary to produce a transaction-based methodology, but may also establish minimum deal parameters for use by a methodology that is based primarily on judgement.

Should no transaction threshold exist, or should submitted data fall below this methodology’s stated transaction data threshold for any reason, Argus will follow the procedures outlined elsewhere in this document regarding the exercise of judgement in the price assessment process.

Transparency
Argus values transparency in energy markets. As a result, where available, we publish lists of deals in our reports that include price, basis, counterparty and volume information. The deal tables allow subscribers to cross check and verify the deals against the prices. Argus feels transparency and openness is vital to developing confidence in the price assessment process.

Swaps and forwards markets
Argus publishes forward assessments for numerous markets. These include forward market contracts that can allow physical delivery and swaps contracts that swap a fixed price for the average of a floating published price. Argus looks at forward swaps to inform physical assessments but places primary emphasis on the physical markets.

Publications and price data
Marine fuels prices are published in the Argus Marine Fuels report. Subsets of these prices appear in other Argus market reports and newsletters in various forms. The price data are available independent of the text-based report in electronic files that can feed into various databases. These price data are also supplied through various third-party data integrators. The Argus website also provides access to prices, reports and news with various web-based tools. All Argus prices are kept in a historical database and available for purchase. Contact your local Argus office for information.

A publication schedule is available at www.argusmedia.com

 Corrections to assessments
Argus will on occasion publish corrections to price assessments after the publication date. We will correct errors that arise from clerical mistakes, calculation errors, or a misapplication of our stated methodology. Argus will not retroactively assess markets based on new information learned after the assessments are published. We make our best effort to assess markets based on the information we gather during the trading day assessed.

Ethics and compliance
Argus operates according to the best practices in the publishing field, and maintains thorough compliance procedures throughout the firm. We want to be seen as a preferred provider by our sub-scribers, who are held to equally high standards, while at the same time maintaining our editorial integrity and independence. Argus has a strict ethics policy that applies to all staff. The policy can be found on our website at www.argusmedia.com. Included in this policy are restrictions against staff trading in any energy commodity or energy related stocks, and guidelines for accepting gifts. Argus also has strict policies regarding central archiving of email and instant messenger communication, maintenance and archiving of notes, and archiving of spreadsheets and deal lists used in the price assessment process. Argus publishes prices that report and reflect prevailing levels for open-market arms length transactions (please see the Argus Global Compliance Policy for a detailed definition of arms length).

Consistency in the assessment process
Argus recognises the need to have judgement consistently applied by reporters covering separate markets, and by reporters replacing existing reporters in the assessment process. In order to ensure this consistency, Argus has developed a programme of training and oversight of reporters. This programme includes:

- A global price reporting manual describing among other things the guidelines for the exercise of judgement
- Cross-training of staff between markets to ensure proper holiday and sick leave backup. Editors that float between markets to monitor staff application of best practices
- Experienced editors overseeing reporting teams are involved in daily mentoring and assisting in the application of judgement for illiquid markets
- Editors are required to sign-off on all price assessments each day, thus ensuring the consistent application of judgement.

Review of methodology
The overriding objective of any methodology is to produce price assessments which are reliable and representative indicators of commodity market values and are free from distortion. As a result, Argus editors and reporters are regularly examining our methodologies and are in regular dialogue with the industry in order to ensure that the methodologies are representative of the market being assessed. This process is integral with reporting on a given market. In addition to this ongoing review of methodology, Argus conducts reviews of all of its methodologies and methodology documents on at least an annual basis.

Argus market report editors and management will periodically and as merited initiate reviews of market coverage based on a qualitative analysis that includes measurements of liquidity, visibility of market data, consistency of market data, quality of market data and industry usage of the assessments. Report editors will review:

- Appropriateness of the methodology of existing assessments
- Termination of existing assessments
- Initiation of new assessments.

The report editor will initiate an informal process to examine viability. This process includes:

- Informal discussions with market participants
- Informal discussions with other stakeholders
- Internal review of market data
Should changes, terminations, or initiations be merited, the report editor will submit an internal proposal to management for review and approval. Should changes or terminations of existing assessments be approved, then formal procedures for external consultation are begun.

Changes to methodology

Formal proposals to change methodologies typically emerge out of the ongoing process of internal and external review of the methodologies. Formal procedures for external consultation regarding material changes to existing methodologies will be initiated with an announcement of the proposed change published in the relevant Argus report. This announcement will include:

- Details on the proposed change and the rationale
- Method for submitting comments with a deadline for submissions
- For prices used in derivatives, notice that all formal comments will be published after the given consultation period unless submitter requests confidentiality

Argus will provide sufficient opportunity for stakeholders to analyse and comment on changes, but will not allow the time needed to follow these procedures to create a situation wherein unrepresentative or false prices are published, markets are disrupted, or market participants are put at unnecessary risk. Argus will engage with industry throughout this process in order to gain acceptance of proposed changes to methodology. Argus cannot however guarantee universal acceptance and will act for the good order of the market and ensure the continued integrity of its price assessments as an overriding objective.

Following the consultation period, Argus management will commence an internal review and decide on the methodology change. This will be followed by an announcement of the decision, which will be published in the relevant Argus report and include a date for implementation. For prices used in derivatives, publication of stakeholders’ formal comments that are not subject to confidentiality and Argus’ response to those comments will also take place.

Introduction

Argus Marine Fuels is a daily report on the retail market for marine fuels, commonly known as bunkers or bunker fuels. It features price assessments for key vessel refuelling locations, and for the bunker fuels typically marketed in those locations.

Means of assessment

Low-high assessments

Price assessments are based on transactions in the open spot market provided there is sufficient liquidity. The Argus low represents the lowest price transacted, and the high represents the highest price transacted. Assessments are based on transactions that meet strict volume, timing, and quality criteria (see tables below). Deals must be considered representative to have a bearing on Argus assessments.

Argus reserves the right to exclude deals from the range of trade. If a reported deal falls well outside of the generally observed highs and lows that operated throughout the trading day or raises other concerns, Argus will analyse the transaction in light of other market data in order to determine if the deal should be excluded. This process is critical to ensuring that the Argus range of trade is accurate and representative.

In the absence of sufficient transactions, Argus assesses the range within which the product could have traded, based on bids and offers, movements in similar grades, and other market data gathered through extensive polling of market participants. In addition to data about physical prices, Argus may look at forward swaps, formula-priced deals, and market fundamentals to inform assessments but places primary emphasis on physical market data.

Argus does not publish counterparty names in Americas marine fuels markets. Many Americas companies can only reveal deals to the press if confidentiality is maintained. Maintaining confidentiality allows Argus to gather more information and create more robust Americas assessments.

All prices are assessed and published in US dollars/metric tonne.

Volume-weighted averages

Price assessments are based on trades, bids and offers and other market information. If more than two assessment-relevant trades meeting the volume, timing and specification criteria and taking place on the assessment date are reported for a given market, the assessment will be published as the volume-weighted average of those trades.

Where two reported trades appear to be identical one will be removed to avoid double counting unless it can be established that they are separate trades.

Submitted trade data will be subject to a statistical analysis to remove outliers before the volume-weighted average is calculated.

Volume-weighted average marine fuels prices are published as single values in US dollars/metric tonne.

Volume-weighted averages are published for

Singapore delivered
Trades received after 7pm Singapore time may not be considered for inclusion in the assessment.

- HS 500cst
- HS 380cst
- HS 180cst
- LSFO 0.5%S
- MGO 1%S
- MGO 0.5%S
- MGO 0.1%S
Hong Kong delivered
Trades received after 7pm China time may not be considered for inclusion in the assessment.
• HS 380cst
• 0.5%S 380cst
• MGO

Shanghai delivered
Trades received after 7pm China time may not be considered for inclusion in the assessment.
• HS 380cst
• 0.5%S 380cst
• MGO

Fujairah delivered
Trades received after 5pm Dubai time may not be considered for inclusion in the assessment.
• HS 380cst
• MGO 0.1%S

Note: Argus assessments of Fujairah-delivered high sulphur (HS) 180cst and 0.5%S 380cst are assessed on the basis of relevant market information including but not limited to trades, bids and offers and spreads to more liquid grades.

Zhoushan Bunker Index
Trades received after 7pm China time may not be considered for inclusion in the assessment.
• HS 380cst
• LSFO 0.5%S
• MGO 0.1%S

Delivery terms
Argus assesses marine fuels on an ex-wharf and on a delivered-on-board basis depending on the port.

Ex-wharf assessments are the price of fuel delivered to the wharf and do not include the cost of barging the fuel to the buyer’s vessel if it is not at the wharf.

Delivered-on-board assessments are the price of fuel delivered to a vessel not at the wharf and include the cost of barging the fuel to the buyer’s vessel.

Bunker assessments — quality criteria

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Unit</th>
<th>Limit</th>
<th>HS 500cst</th>
<th>HS 380cst</th>
<th>HS 180cst</th>
<th>Gasoil bunker (MGO)</th>
<th>ECA</th>
<th>0.5% Fuel oil</th>
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<tbody>
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<td>Sulphur</td>
<td>%</td>
<td>Max</td>
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<td>3.5</td>
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<td>Density at 15°C</td>
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<td>380</td>
<td>180</td>
<td>50-80</td>
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<td>30</td>
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<td>150</td>
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<tr>
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<td>50</td>
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<td>60</td>
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</table>

*Note: Argus Marine Fuels includes 0.1pc sulphur ECA fuel assessments on a dob basis in Rotterdam, St Petersburg and Ust Luga. In Rotterdam the volume and delivery parameters are the same as for MGO (see Bunker assessments — volume and delivery parameters table). For St Petersburg and Ust-Luga volume and delivery timing see the Argus Russian Fuel Oil methodology. Quality criteria for ECA fuel assessments are listed above.

Posted bunker prices

Argus publishes posted prices for some ports. Posted prices are reported to Argus directly by the seller or indirectly by market participants. Argus confirms posted prices reported to it indirectly with market participants.

Posted prices are updated in Argus Marine Fuels on the date when the new prices take effect. Prices are valid for the entire day on the day of publication, unless otherwise stated in Argus Marine Fuels. Where a supplier posts more than one set of prices in a single trade day, Argus will publish whichever set is valid for the largest part of the trade day.

Index-linked bunker prices

In addition to an outright price assessment, Argus publishes a Rotterdam marine gasoil (MGO) assessment expressed as a differential to Ice gasoil. Differential assessments are based on deals, bids and offers transacted at a differential to Ice gasoil. In the absence of index-linked trade, differentials will be calculated by subtracting the same day’s front-month Ice gasoil settlement price from Argus’ outright price assessment for Rotterdam MGO.
Weekly, monthly and quarterly averages

A series of working week, calendar month and calendar quarter averages are published for the fuel oil bunker 380cst spot Los Angeles market.

These are calculated as the average of the midpoints published for the assessment during the working week, calendar month or calendar quarter ending on the day of publication.

Bulk fuel oil assessments

Argus Marine Fuels includes a number of bulk fuel oil price assessments. Methodologies for these assessments can be found in the following locations:

Northwest Europe
- 0.5pc fuel oil fob barge
- 0.1pc MGO fob barge
- 0.5pc MGO fob barge
- 1pc fuel oil fob barge
- 3.5pc fuel oil fob barge
- 3.5pc RMK fob barge

See the Argus European Products methodology

Gulf coast
- 0.5pc fuel oil fob barge, $/t
- 0.5pc fuel oil fob barge, $/bl
- 3pc fuel oil fob barge, $/bl
- RMG 3.5pc fuel oil fob barge, $/bl

New York
- 0.5pc fuel oil delivered barge, $/t
- 0.5pc fuel oil delivered barge, $/bl
- 0.5pc sulphur MGO fob barge, ¢/USG
- 1pc fuel oil delivered barge, $/bl

See the Argus US Products methodology

Singapore
- 0.5pc 380cst fuel oil fob cargo
- 3.5pc 180cst fuel oil fob cargo
- 3.5pc 380cst fuel oil fob cargo

See the Argus Asia-Pacific Products methodology

Fujairah
- 0.5pc 380cst fuel oil fob barge

See the Argus Mideast Gulf and Indian Ocean Products methodology

LNG assessments

Argus Marine Fuels includes a number of liquefied natural gas (LNG) and natural gas price assessments.

- US Gulf coast LNG fob
- Northwest Europe LNG delivered
- Northwest Europe small-scale LNG free on truck

See the Argus LNG Daily methodology

- TTF natural gas

See the Argus European Natural Gas methodology

Conversion factors

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<th></th>
<th>bl/t</th>
<th>mn Btu/bl</th>
<th>kWh/mn Btu</th>
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<tbody>
<tr>
<td>US MGO</td>
<td>7.46</td>
<td>5.825</td>
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<tr>
<td>Northwest Europe MGO</td>
<td>7.37</td>
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<td>LNG</td>
<td>-</td>
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IMO 2020-compliant marine fuels, blendstocks

The Argus Marine Fuels service includes a weekly fuel price addendum, containing the weekly average price of fuels that can be used for bunkering or as bunker blendstocks to meet the 2020 International Maritime Organization (IMO) marine fuel regulation, which will reduce the global bunker sulphur limit from 3.5pc to 0.5pc in January 2020.

The addendum is published on the first business day of the week in accordance with the Argus US Products report publishing schedule. A full publication schedule is available at www.argusmedia.com.

The prices are shown in $/t, unless noted, and are the average of Argus price assessments, published Monday-Friday of the previous week.

Price assessments are republished from various Argus market reports. More information can be found in each publication’s methodology.

Argus Asia-Pacific Products, Argus Mideast Gulf and Indian Ocean Products, Argus European Products, Argus Russian Fuel Oil, Argus Russian Products Exports, Argus US Products
<table>
<thead>
<tr>
<th>Product</th>
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<td><strong>Asia-Pacific</strong></td>
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<td>Singapore MGO 0.1%S max</td>
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<td>Singapore LSFO 0.5%S bunker</td>
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<td><strong>Middle East</strong></td>
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<td><strong>Europe</strong></td>
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<td>Rotterdam MGO 0.1%S max</td>
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<td>Rotterdam ECA-compliant fuel oil 0.1%S max</td>
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<td>NW Europe MGO 0.1%S, barge</td>
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<tr>
<td>NW Europe 0.5%S fuel oil, barge</td>
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<tr>
<td>NW Europe straight-run FO 0.5%S max</td>
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<td>NW Europe 0.5%S MGO, barge</td>
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<tr>
<td>NW Europe VGO 0.5%S max</td>
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<td>Western Mediterranean VGO 0.5%S max</td>
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<tr>
<td>Baltic Sea - St Petersburg fuel oil 0.5%S bunker</td>
<td>dob</td>
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<tr>
<td>Baltic Sea - St Petersburg ECA-compliant fuel oil 0.1%S max</td>
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<tr>
<td>Baltic Sea - St Petersburg MGO 0.1%S max</td>
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<td>Baltic Sea - Ust Luga fuel oil 0.5%S bunker</td>
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<td>Black Sea - Novorossiysk fuel oil 0.5%S bunker</td>
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<td>Black Sea - Novorossiysk MGO 0.1%S max</td>
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<tr>
<td>Black Sea gasoil 0.5%S max*</td>
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<tr>
<td>Black Sea gasoil 0.2%S max*</td>
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<tr>
<td>Black Sea VGO 0.5%S max</td>
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<td>US Gulf VGO 0.5%S max vs WTI, barge</td>
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<td>US Gulf VGO 0.5%S max vs WTI, cargo</td>
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<tr>
<td>US Gulf fuel oil 0.5%S, barge, $/bl</td>
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<tr>
<td>US Gulf fuel oil 0.5%S, barge, $/t</td>
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<tr>
<td>US Gulf heating oil 0.2%S max, waterborne</td>
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<td>Houston fuel oil 0.5%S, bunker, $/t</td>
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<td>Houston MGO 0.1%S max ex-wharf</td>
<td>ex-wharf</td>
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<td>New York fuel oil 0.5%S, barge, $/bl</td>
<td>fob</td>
<td>Argus US Products</td>
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<td>New York fuel oil 0.5%S bunker, $/t</td>
<td>ex-wharf</td>
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<td>New York MGO 0.1%S max ex-wharf</td>
<td>ex-wharf</td>
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<tr>
<td>New York MGO 0.5%S, barge, $/USG</td>
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<td>Los Angeles MGO 0.1%S max</td>
<td>ex-wharf</td>
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<tr>
<td>Los Angeles fuel oil 0.5%S, bunker</td>
<td>ex-wharf</td>
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<tr>
<td>Panama fuel oil 0.5%S bunker, $/t</td>
<td>ex-wharf</td>
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*Note: Argus Russian Products Exports is a weekly publication. These assessments are the latest available weekly value
### Bunker assessments — volume and delivery parameters

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<th>Delivery point</th>
<th>Delivery size</th>
<th>MGO max sulphur %</th>
<th>Timing (days forward)</th>
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<tr>
<td></td>
<td>HS 500cst</td>
<td>HS 380cst</td>
<td>0.5%S 380cst</td>
</tr>
</tbody>
</table>

#### Asia-Pacific

- **South Korea**
  - Delivered on board: 300-1,000
  - HS 500cst: 300-1,000
  - HS 380cst: 300-1,000
  - 0.5%S 380cst: 50-100
  - 0.5%S 180cst: 0.5
  - Timing: 3-10 days

- **Hong Kong**
  - Delivered on board: 300-3,000
  - HS 380cst: 300-3,000
  - 0.5%S 380cst: 50-100
  - Timing: 4-12 days

- **Shanghai**
  - Delivered on board: 300-3,000
  - HS 380cst: 300-3,000
  - 0.5%S 380cst: 50-100
  - Timing: 4-12 days

- **Zhuhai Bunker Index**
  - Delivered on board: 500-3,000
  - HS 380cst: 500-3,000
  - 0.5%S 380cst: 50-100
  - Timing: 4-12 days

- **Singapore**
  - Delivered on board: 50-500
  - HS 380cst: 10-200
  - 0.1
  - Timing: 4-12 days

- **Sydney**
  - Delivered on board: 100-500
  - HS 380cst: 100-500
  - 0.1
  - Timing: 3-10 days

- **Tokyo**
  - Delivered on board: 300-1,000
  - HS 380cst: 300-1,000
  - 0.1
  - Timing: 3-10 days

- **Russian far east**
  - Prices are published for HS 380cst, MGO and 0.5%S IMO 2020 compliant fuels. See the Argus Russian Fuel Oil methodology.

#### Mideast Gulf and Indian Ocean

- **Fujairah**
  - Delivered on board, includes Khor Fakkan: 500-3,000
  - HS 380cst: 500-3,000
  - 0.1
  - Timing: 4-12 days

- **Mumbai**
  - Delivered on board: 500-1,000
  - HS 380cst: 50-100
  - 0.1
  - Timing: 3-7 days

- **Malta**
  - Delivered on board: 300-2,500
  - HS 380cst: 300-2,500
  - 0.1
  - Timing: 4-12 days

- **Novorossiyk**
  - Prices are published for HS 380cst, MGO and 0.5%S IMO 2020 compliant fuels. See the Argus Russian Fuel Oil methodology.

- **Piraeus**
  - Delivered on board: 300-1,000
  - HS 380cst: 300-1,000
  - 0.1
  - Timing: 1-9 days

- **North Europe**
  - Antwerp
    - Delivered on board: 300-2,500
    - HS 380cst: 300-2,500
    - 0.1
    - Timing: 1-9 days
  - Hamburg
    - Delivered on board: 200-1,000
    - HS 380cst: 200-1,000
    - 0.1
    - Timing: 1-9 days

- **North America Atlantic coast**
  - Halifax
    - Ex-wharf: 400-2,000
    - HS 380cst: 400-2,000
    - 0.1
    - Timing: 1-9 days
  - Montreal
    - Delivered on board: 300-500
    - HS 380cst: 300-500
    - 0.1
    - Timing: 2-7 days
  - New York ex-wharf: 500-2,000
  - Philadelphia ex-wharf: 500-2,000
  - Houston ex-wharf: 500-2,000
  - New Orleans ex-wharf: 100-1,500
  - New Orleans delivered on board: 100-300
  - *New Orleans 0.5%S ex-wharf product viscosity is unspecified*

- **North America west coast**
  - Los Angeles ex-wharf: 500-3,000
  - Portland ex-wharf: 600-3,000
  - San Francisco ex-wharf: 500-2,000
  - Seattle ex-wharf: 500-1,500
  - Vancouver ex-wharf: 200-1,000
  - *New Orleans 0.5%S ex-wharf product viscosity is unspecified*

- **South America Atlantic coast**
  - Buenos Aires delivered on board: 800-1,500
  - Montevideo delivered on board: 150-1,500
  - *New Orleans 0.5%S ex-wharf product viscosity is unspecified*

- **Caribbean**
  - Cartagena delivered on board: 250-1,500
  - Panama ex-wharf: 200-1,200
  - *New Orleans 0.5%S ex-wharf product viscosity is unspecified*
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<td>El Callao</td>
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<td>400-1,500</td>
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<tr>
<td>Guayaquil</td>
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<td>Libertad</td>
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<td>Quintero/Valparaso</td>
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<tr>
<td>San Antonio</td>
<td>delivered on board</td>
<td>300-1,500</td>
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</tbody>
</table>

*Guayaquil and La Libertad 0.5%S delivered-on-board product viscosity is unspecified*