

## *Methodology and Specifications Guide*

### *Bunker Fuels & Tankers*

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***LATEST UPDATE: JUNE 2010***

## BUNKER FUELS

Platts assesses four grades of marine fuel: Intermediate Fuel Oil (IFO) 180 centisoke (CST), IFO 380 CST, Marine Diesel (MDO) and Marine Gasoil (MGO).

The worldwide market generally follows similar specifications for these grades in all locations. The specifications followed are those defined by the International Organization for Standardization in document ISO 8217:2005 (E) - Petroleum products - Fuels (class F) - Specifications of marine fuels.

**IFO 380:** Specifications generally conform with that for RMG 380. Approximate Kinematic Viscosity: At 50 C, max 380 cst. Flash point 60 C minimum. Pour point (upper) winter quality, 30 C maximum; summer quality, same. Ash 0.15 m/m maximum. Sulphur, maximum 4.5%. Vanadium max 300 mg/kg. Aluminium plus silicon, 80 mg/kg max; water, 0.5% maximum.

**IFO 180:** Specifications generally conform with that for RME 180. Approximate Kinematic Viscosity: At 50 C, max 180 cst. Flash point 60 C minimum. Pour point (upper) winter quality, 30 C maximum; summer quality, same. Ash 0.10 m/m maximum. Sulphur, maximum 4.5%. Vanadium max 200 mg/kg. Aluminium plus silicon, 80 mg/kg max. ; water, 0.5% maximum.

**Marine Diesel:** Specifications generally conform with that for DMB. Kinematic viscosity at 40 C, max 11 cst; Flash point 60 C minimum; Pour point (upper) winter quality, 0 C; pour point upper summer quality, 6 C; Ash 0.01% maximum; Sulfur, maximum 2%; ; water, 0.3% maximum.

**Marine Gasoil:** Specifications generally conform with that for DMA. Kinematic Viscosity at 40 C, 1.5 minimum CST, maximum 6 cst; Flash point 60 C minimum; Pour point (upper) winter quality, - 6 C; pour point upper, summer quality, 0 C; Ash 0.01% maximum; Sulfur, maximum 1.5%. Cetane, minimum 40.

**Low sulfur fuels:** Platts assesses low sulfur 380 CST and 180 CST bunker fuel in the ports of Rotterdam, Antwerp, Hamburg, Great Belt, Gdansk, St Petersburg, Falmouth, Dunkirk, Gibraltar, Genoa, Malta and Piraeus. The current maximum sulfur content of this fuel is 1.5%.

However, effective June 1 2010, Platts will launch low sulfur 380 CST and 180 CST to reflect IMO SECA legislation of maximum of 1% in the ports of Rotterdam, Antwerp, Hamburg, Great Belt, Gdansk, St Petersburg, Falmouth and Dunkirk. All ports will be assessed on a delivered basis, with the exception of Falmouth and Dunkirk which will be assessed on an ex-wharf basis.

### EUROPE

**Timing:** Platts bunker price assessments in Europe reflect the market value at 1630 London time, for bunker fuel supplied 1-8 days ahead. As such they do not represent an average of the

### Typical sizes

	IFOs	Distillates
Antwerp	300-2500	10-200
Augusta	300-2200	10-200
Dakar	N/A	10-100
Dunkirk	200-1000	20-100
Durban	200-1500	10-100
Falmouth	100-1000	10-100
Fos	500-2200	10-200
French Med	500-2200	10-200
Gdansk	200-900	10-100
Genoa	300-1700	10-120
Gibraltar/Algeciras/Ceuta	200-2000	10-200
Great Belt	300-1000	10-100
Hamburg	400-1000	10-100
Istanbul	100-1000	10-100
Las Palmas/Tenerife	400-2000	10-200
Malta	300-1000	10-100
Novorossiisk	200-2500	10-100
Piraeus	300-1000	10-100
Rotterdam	300-2500	10-200
Suez	300-1000	10-100
St Petersburg	300-1200	10-100
Trieste	250-700	20-50

day's trades. Confirmed trades, bids and offers reported throughout the day will be included in the assessment process. In addition to such information, activity on the physical and derivative European fuel oil markets will also be taken into account during assessment.

**Price:** Prices are quoted in \$/metric tonne. There is no maximum range, though generally prices are assessed with a \$1 to \$4/mt spread between low and high. Prices carry a minimum range of 50 cts/mt.

**Typical Size:** Typical sizes vary from port to port. The sizes attached to the list below are typical, not minimums and maximums. However, trades done outside these ranges may be considered atypical when assessing standard tradable volumes.

**Delivery:** Bunkers are assessed on either an ex-wharf or delivered basis which includes all barging costs.

The following ports are assessed **ex-wharf:** Dunkirk, Falmouth, Fos, Augusta, Genoa, Trieste, Dakar and Durban.

The following ports are assessed **delivered:** Rotterdam, Antwerp, Hamburg, Great Belt, Gdansk, St Petersburg, Gibraltar, Algeciras, Ceuta, Las Palmas, Tenerife, Malta, Istanbul, Novorossiisk, Suez and Piraeus.

Holidays: When national holidays occur, there are no assessments for that country's port or ports. For full details please consult the Platts holiday schedule which can be found at [www.platts.com/HolidayHome.aspx](http://www.platts.com/HolidayHome.aspx)

## UNITED STATES & LATIN AMERICA

**Assessment Timing:** Platts' assessment methodologies for Americas bunker fuel reflect prevailing market price at 3:15 pm Eastern Time. Platts also takes into its editorial consideration bids, offers and transactions seen during the assessment day. These inputs are analyzed and normalized to reflect Market on Close at 3:15 pm ET. Platts editors report bunker fuel trading activity throughout the day; all openly negotiated and verifiable arms-length transactions will be relevant for the assessment process unless they are superseded by repeatable trading activity leading to the MOC at 3:15 pm ET. Platts adopted this MOC approach for its Americas bunker fuel assessments on October 2, 2006.

Platts published the following subscriber note on September 18, 2006 announcing the October 2 MOC launch in Americas bunker fuel:

*Subscriber note: Platts is modifying its assessment methodologies to reflect spot prices at the close of the market at 3:15 p.m. EDT for its Americas bunker fuel assessments effective October 2nd, 2006. The new methodology is commonly referred to as a market-on-close assessment process. Platts editors will continue to report bunker fuel trading activity throughout the day and all openly negotiated and verifiable arms-length transactions will be relevant for the assessment process unless they are superseded by repeatable trading activity leading to the 3:15 p.m. EDT market close.*

Due to the time-sensitive nature of the Platts MOC assessment process, market participants should report the time a deal is consummated along with all other relevant deal information, including volume, estimated time of arrival (ETA), quality, and if the bunker fuel was sold in conjunction with 180 CST or marine diesel/gasoil.

**Timing:** Platts bunker assessments in the US reflect deliveries 3-7 days from the date of publication for the US Gulf Coast, the US Atlantic Coast, and Latin America. On the US West Coast, due to differences in market operations there, the range is 3-10 days.

**Price:** Prices are quoted in \$/metric tonne. There is no maximum range, though generally prices are assessed with a \$2 to \$4/mt spread between low and high. Prices carry a minimum range of 50 cts/mt.

**Size:** Typical size ranges are as follows: New York and Houston, 500-2,000 mt; Los Angeles, San Francisco, 1,000-3,000 mt; Seattle, Portland, Philadelphia, 500-2,000 mt; Norfolk, 400-2,000 mt; Montreal, 300-500 mt; New Orleans, 200-1,500 mt; Panama, 500-2,000mt. Platts reserves the right to consider other volumes depending on market conditions.

**Sulfur content:** Per the specifications near the beginning of this document, Platts specifications on IFO 380 and IFO 180 call for a maximum sulfur content of 4.5%. Higher prices for material reflecting a tighter sulfur specification will not be included in the Platts assessment.

**California bunker taxes:** California has implemented particularly stiff taxes on bunker sales in that state. Those fees are not included in the Platts assessment.

**Delivered assessments:** Platts delivered bunker assessments are calculated by taking the ex-wharf price and adding a barge rate. That barge rate is determined by a regular survey of the market undertaken by Platts editors. This rate is one figure that is a rough average of the prevailing barge rates in a market. It is not an assessment for a specific-sized barge, but instead is the result of a compilation of several prevailing prices.

## ASIA AND MIDDLE EAST

### Singapore, Hong Kong, Middle East and Australia

These assessments are made from Platts' Singapore office. In line with Platts' typical publishing practices, the publication schedule for the assessments follows the publishing schedule of the office that issues the assessments.

**Delivery timing:** Platts' delivered bunker assessments for these ports are for deliveries 3-7 days out. Singapore's ex-wharf assessments are for deliveries 3-15 days out.

**Assessment timing:** Prices assessed for these markets reflect activity reported to Platts throughout the day, and values for all reported trades are always normalized to reflect the prevailing value of the market at 5.30 p.m. in Singapore.

**Price:** Prices are assessed in \$/metric tonne.

**Size:** The minimum size parcel assessed is 500 metric tons for 180CST and 380CST bunker fuel, except in Hong Kong where a minimum quantity of 300mt is assessed for 180CST bunker fuel (500mt for 380CST). The typical maximum quantity is 1,500 mt. Marine gasoil and marine diesel assessments are for small parcels, often less than 50 mt.

**Basis:** Kuwait is assessed ex-pipe. With the exception of the ex-wharf prices for Singapore, the other assessments for these regions all are done on a delivered basis.

**Size:** IFO 180 CST prices generally reflect a minimum quantity of 300 metric tonnes, while 380 CST generally reflects at least 500 tonnes.

### Japan and Korea

These assessments are done from Platts' Tokyo office. In line with Platts' typical publishing practices, the publication schedule for the assessments follows the publishing schedule of the office that issues the assessments.

**Delivery timing:** The assessment reflects market activity 3-7 days out from the date of publication.

**Assessment timing:** Prices assessed for these markets reflect activity reported to Platts throughout the day, and values for all reported trades are always normalized to reflect the prevailing value of the market at 6.30 p.m. in Tokyo.

**Price:** Prices are assessed in \$/metric tonne.

**Size:** Platts reflects quantities of 300-2,500 metric tones.

**Basis:** The Japan assessment is set on a delivered basis. It reflects activity in the Tokyo/Yokohama Bay area. Korea assessments are based on market activity in Pusan and Ulsan.

## POSTED PRICES

**Chinese Petroleum Corp.:** The posted prices for bunker fuel sold by CPC are quoted on a delivered basis. They are quoted in \$/mt. Base size is 1,000 mt, but lots larger than that often receive a rebate of \$5/mt. Smaller lot sizes often get a rebate of \$3-\$4/mt.

Delivery is by barge for all key ports, except Hualien, where it is by pipeline. Prices are effective for all key ports, except for IFO 380 CST. In 2003, CPC began quoting two posted prices for 380 CST, with the lower end of the range reflecting prices at Keelung and Kaohsiung, and the high end reflecting prices at other locations.

**Chimbusco:** Chimbusco is the state-owned Chinese marine fuel marketing agency. It posts \$/mt prices for three separate ports: Shanghai, Dalian and Guangzhou. Chimbusco quotes a high and low end of a price range for its posting, though the two ends do not reflect any quality differences. However, some smaller ports in China will have slightly different prices than the main three cities, and the range reflects that. Chimbusco's distillate price represents marine gasoil. The prices are quoted on a delivered basis.

**Saudi Aramco:** Prices are quoted in \$/mt for three locations: Jeddah, Dammam and Ras Tanura. The prices are ex-wharf.

## SHIPPING

Platts assesses the open market rates for the chartering of both dirty and clean tankers. Dirty tankers are defined as one carrying crude, fuel oil or other "dirty" products such as vacuum gasoil or dirty condensate. Clean tankers carry light ends such as gasoline, distillate or naphtha. In addition, Platts carries separate assessments for smaller dirty tankers dedicated to moving just fuel oil, and assesses a special premium for the movement of jet fuel-designated tankers.

Platts mostly follows general principles for all assessments, with some specifications unique to either clean or dirty tankers.

## PORTS

Platts assesses a number of key shipping regions under broad geographic descriptions. A list of those descriptions as they appear in the Tankerwires, and the markets they represent, follows.

<b>UKC:</b>	Bilbao to Hamburg, but not including Portugal. Designation includes southern Sweden and western Norway.
<b>Med:</b>	Everything from Gibraltar to Istanbul
<b>Black Sea:</b>	All ports in Black Sea.
<b>Caribbean:</b>	Venezuela and the islands.
<b>EC Canada:</b>	Atlantic coast, as well as shipments into the St. Lawrence.
<b>USWC:</b>	Seattle to Los Angeles
<b>USGC:</b>	Pascagoula, Mississippi to Corpus Christi
<b>USAC:</b>	North of Cape Hatteras to Portland, Maine.
<b>AG:</b>	All ports in the Arab Gulf, up to the Straits of Hormuz
<b>Indo:</b>	All ports in Indonesia
<b>Skorea:</b>	All ports in South Korea.
<b>Japan:</b>	All ports in Japan
<b>Austr:</b>	All ports in Australia
<b>HK:</b>	All ports in Hong Kong
<b>Rsea:</b>	All ports in the Red Sea
<b>India:</b>	All ports in India
<b>EAfrica:</b>	From the African horn south to Durban, South Africa.

## ASSESSMENTS

**Timing:** Platts tanker rate assessments are published at 4 p.m. London time. They are derived from both fixtures concluded and market levels talked in the period since the previous set of assessments was published. Platts aim is two-fold: a) to provide a reflection of market activity (i.e. fixtures, vessels put on subjects, bids and offers) heard since publication of the previous set of freight assessments b) to publish an indication of the level at which Platts believes chartering activity could occur, given the

movements in other markets. Given that some particular routes can go several days without any significant activity, either actual chartering or bids/offers, Platts will adjust its tanker assessments up or down on the basis of broader market trends and a survey of the market to determine their views on a relative value of a ship charter for a particular route.

Platts tanker assessments do not reflect a standard time period in the assessment basis, given the widely divergent time windows under which markets operate. While a long-haul market such as AG-USGC might see ships chartered weeks in advance, a short-haul rate such as cross-Med traffic often has ships being chartered with just a few day's notice. Platts will make its judgement on tanker assessments within a time range consistent with standard practice in that market.

**Basis:** Platts tanker assessments are primarily expressed as percentage of the annual Worldscale flat rate that is being agreed upon in open market transactions to charter a ship. For example, if the Worldscale annual flat rate – also known as Worldscale 100 – is set at \$10.00 per metric ton for a specific route, a Platts' assessment of 50 for that route would mean that the class of ship being assessed is being chartered for \$5.00 per metric tonne of freight on that voyage.

The Worldscale flat rate is published at the beginning of each year by the Worldscale Association.

**Lump-sum assessments:** In some clean tanker markets, some routes are assessed on a lump sum for the cost of chartering a ship of the specified size. The markets that are assessed on that basis have historically traded in that manner, and the Platts' assessment of a lump sum rather than Worldscale rate simply follows the practice.

In the Clean Tankerwire, assessments that are based on a Worldscale rate carry a designation of W. There are no dirty tanker assessments done on a lump-sum basis.

**Size and specifications:** The tonnage specified in our assessment tables represents the weight of the cargo carried. Platts will consider charters of different yet approximate sizes when making its assessments, pro-rating the market rates to the size of the ship in the assessment.

Assessments are typically based on double-hull/double-bottom vessels under 20 years of age, or typically under 15 years for voyages involving a European load or destination port. Where there is a broadly equal amount of market activity taking place for both well-approved, modern tonnage and older, less well-approved tonnage in the same market concurrently, Platts' assessment will be based on the higher quality end of the market. The aim is to follow where the bulk of activity is taking place in each of the routes Platts assesses.

**NR:** NR is a designation that stands for No Recent Rate. It is utilized on a route where Platts sees at least six months of either

Fuel oil-only routes and sizes	
UKC-UKC:	27.5, 30
UKC-Med:	27.5, 30
UKC-USG:	30
UKC-USG:	55
UKC-Med:	55
Med-Med:	27.5
Med-Med:	30
BSea-Med:	30
Caribs-USG:	50
Caribs-USAC:	50

total or near-total inactivity. NR is not used to reflect a market that is simply quiet for a few days. Platts will always seek to minimize the use of NR assessments, and a route's designation of NR will always be ended as quickly as possible when information on that route becomes available.

**\$/MT assessments:** Platts converts its Worldscale and lump-sum rates into \$/mt equivalent assessments. Platts determines \$/mt freight rates based on a basket of Worldscale flat rates on several key routes between the two regions noted. For example, the UKC-USG \$/mt assessment would be based on such routes as Sullom Voe-Houston. Platts' spot Worldscale assessments are applied against this basket, to produce the assessment for a \$/mt rate. The basket is updated annually, when the Worldscale Association establishes new flat rates for the year. For those routes which are assessed basis a US\$ lumpsum, the \$/mt assessment is calculated by dividing the lumpsum total by the size of the cargo assessed.

**Fuel oil-only assessments:** Platts produces several assessments within the body of its Dirty Tankerwire that represent solely a standard vessel moving dirty petroleum products that do not require heating during transport or storage. This generally is fuel oil, hence the designation of these as fuel oil-only assessments. These movements generally command a premium in the spot chartering rate. Under normal market conditions, assessments loading in the Baltic are based on modern, non-ice class vessels.

The following routes and sizes (in kt) reflect fuel oil-only assessments:

**Suez Canal:** Assessments for voyages which would involve a Suez Canal transit are made inclusive of any canal fees.

**Jet Fuel Premium:** In its Clean Tankerwire and on the tanker pages of Platts Global Alert, Platts publishes a jet fuel premium. The premium represents the amount of Worldscale points to be added to the published Med-UKC 30kt assessment. That final number is used to determine the freight rate that Platts uses to net back the value of Amsterdam-Rotterdam-Antwerp (ARA) jet fuel to the Mediterranean. Platts does not assess an outright CIF Med jet price. The assessment it publishes is netted back from the CIF ARA assessment.