



# IMO's 2020 Low Sulphur Bunker Requirements – Impact on Vessel Operations and Potential Collateral Impact on Insurance and Cargo Operations

a presentation to the Marine Insurance and Cargo  
Committees

Maritime Law Association of the United States Fall Meeting

October 31, 2019

by Guillermo Cancio

1

## Speaker

Guillermo Cancio J.D. MBA  
Senior Claims Executive  
Thomas Miller (Americas), Inc.

Prior:  
Markel Service, Inc.  
AGCS Marine Insurance Co.

2

## What?

MARPOL 73/78 – Annex VI

Reduction in permitted sulfur content

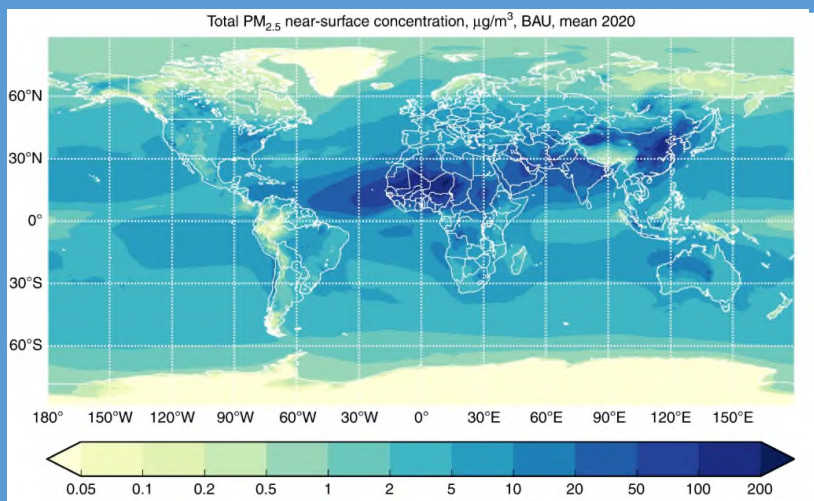


## Why?

- Increased scrutiny of polluters, includes the shipping industry.
  - IMO goal to halve shipping emissions by 2050.
    - 796 million tons of CO<sub>2</sub> in 2012. (2.2% of total emissions).
  - Environmental impacts
  - Health impacts

4

# Particulate Emissions



<https://www.nature.com/articles/s41467-017-02774-9>

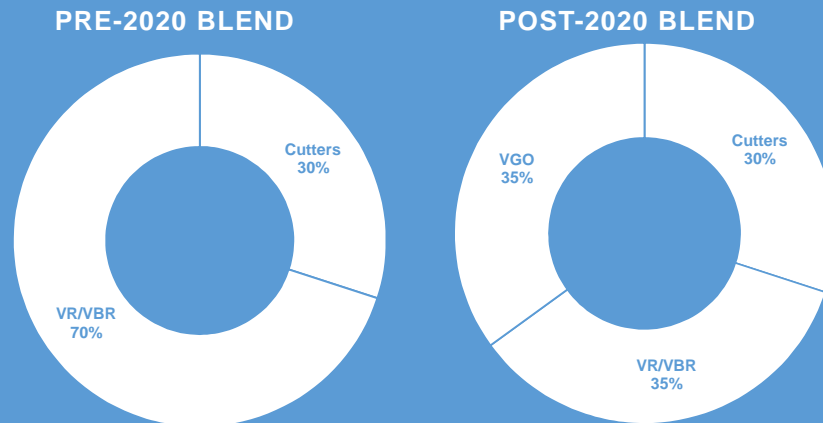
5

# When?



6

## Changing Paradigm



7

## Compliance

Each compliance mechanism poses unique risks to vessel owners and operators.

- Low Sulphur fuel
- Installing exhaust cleaning system (scrubber)
- Conversion to alternative fuels (ex. LNG)

8

## Residual and Distillate

- Low sulfur bunkers are proprietary and patented.
- Cost is unknown. Costs expected to exceed \$1000 per ton.
  - Maersk estimates its fuel bill will increase by \$2 Billion USD and has already implemented a fuel surcharge effective Jan 1, 2019.
- Compatibility issues.

9

## Properties of Fuel Oil

- Stability
- Compatibility
- Viscosity \*
- Sulfur Content
- Acid Number
- Flashpoint
- Cat Fines
- Viscosity
- Cold Flow
- FAME Content

10

## Scrubber

- 15% of the global fleet by tonnage to be scrubber fitted end of 2020.
- Cost challenges
- Different technologies
- Waste disposal

11

LNG

World Premiere: Launching of the World's Largest LNG-Powered Containership and Future CMA CGM Group Flagship



Source: Tote Maritime

12

## Biofuels

- No large scale implementation
- Global testing
- No global availability

## Slow Steaming

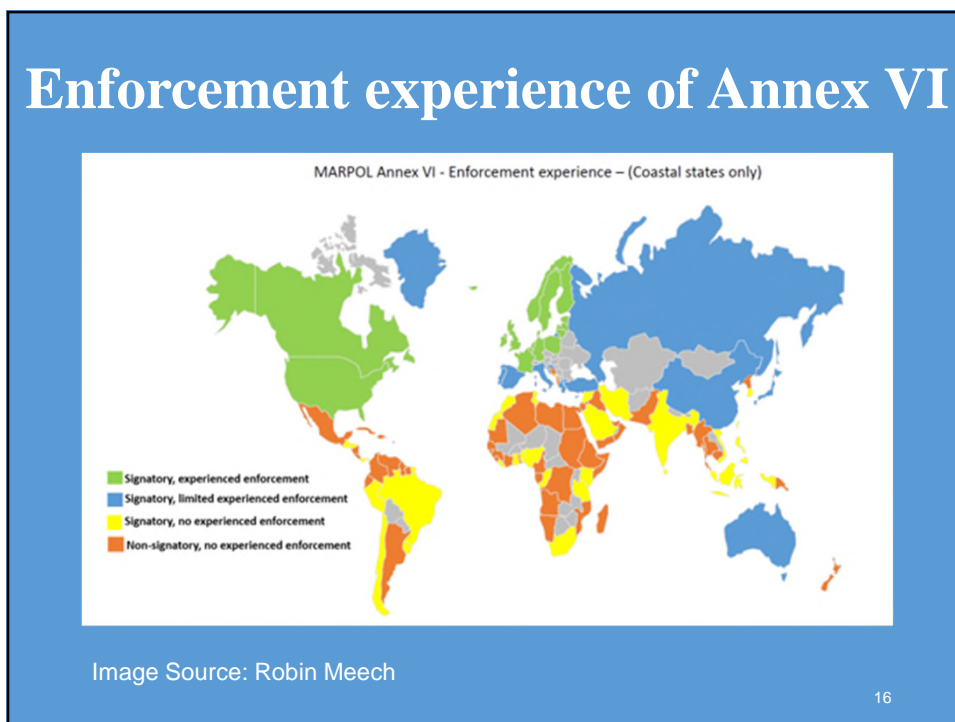
- Alright a widely used compliance strategy within ECA
- Unknown effect
- Likely will be used in conjunction with other strategies

13

## Documentation Requirements

- Bunker Delivery Note
  - MARPOL Annex VI, MERC. 176 (58)
  - 40 CFR SS 1043.70 and 1043.100
  - Issued by seller/bunker barge to document fuel information
  - Three year retention
- Sample log
  - Bunker samples (min 400 ml)
  - 4 Cubitainer with tamper proof seal
  - Sample retention required for 12 months

14





## Port State Control

- US
  - Business as usual
  - \$25,000 per day fines
  - Detention of vessel

17

## Flag State

- All of the top 10 flag states by tonnage have ratified Marpol Annex VI.
- Approach to compliance unknown and likely to vary.
  - Fines
  - Vessel downtime/loss of earnings
  - Reputational risk

18

## Unavailability of Fuel

- Vessel can use non compliant fuel.
- Fuel Oil Non-Availability Report (FONAR)
  - Issued to Captain of the Port, Flag State
- Non-availability is not a waiver of compliance
  
- Market research shows there will be adequate compliant fuel supplies.
  - Prices will vary greatly.
  - Compatibility of fuel will not be guaranteed.

19

## Liability

- Likely to rest with charterer.
  - Dependent on terms
- Test methods
  - ASTM D4740 (1 hour)
  - Total Sediment Potential (24 hours)
  
- 10307-2 Procedure A (thermal ageing)

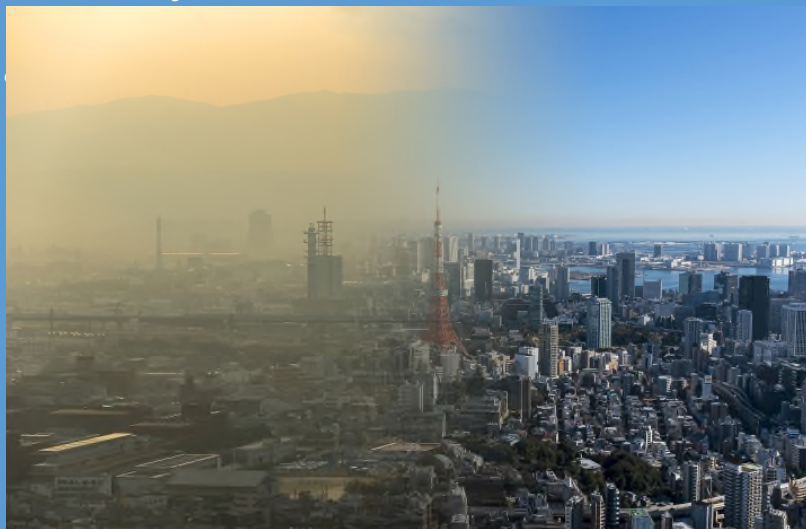
20

## Insurance Implications

- P&I
- FDD
- Hull
- Cargo Interests
  - GA Claims
  - Voyage delays
  - Increased freight rates

21

Thank you.



22