Panama





Looking Ahead . . .





... In a sentence!

RightShip is an innovative organization with a social conscience, best known for our work on maritime safety.

We also have a growing reputation for our work in environmental sustainability.

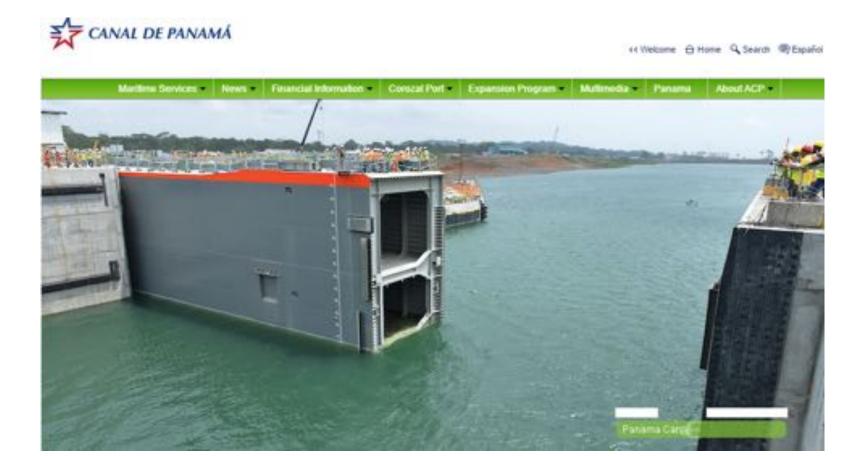




- Congratulation to ACP! New Horizons . . .
- **Limitless** Infrastructure or Optimization
- **Does Efficiency Pay?** Big Data & The first movers
 - What can we do!

Today's Discussion RIGHTSHIP











Vessel Running cost – OPEX + CAPEX

22 80%

- Rates in recent past
- Is this Sustainable?

- Average Capesize demolition age at 21.4 years so far in 2016
- Dry bulk cargo market in `pure survival mode,' Clarksons says

http://www.bloomberg.com/quote/BDIY:IND



Commodity Shipping Costs Tumble Amid Slowing Demand Baltic Dry Index falls to lowest in three decades



Stakeholders

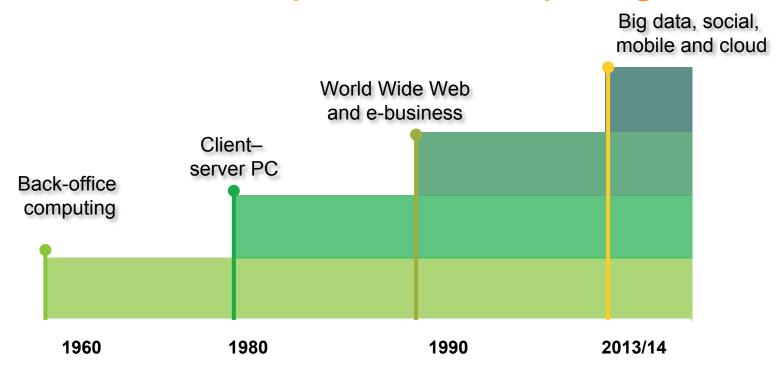




- COP21 Dec'15 177 nations agreed to reduce emissions
- Stakeholders Awareness & Societal Demand
- Geopolitical, Corporate & populace Dialogue
- Optimization & Sustainability



The transformative power of computing



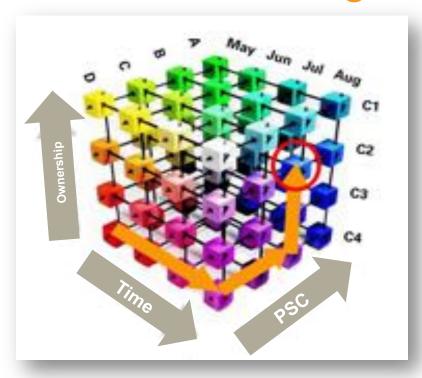


Big data





What to do with big data?



The core of big data programs is business analytics

Business analytics allow us to analyze the date we are collecting

- Look for anomalies
- Look for trends
- Compare intelligently

Cubing allows us to 'slice & dice' our data in multiple ways

Analytics can be linked to forecasting





The maritime industry is clearly **outperforming the regulators** in their efforts to mitigate climate change.

"The RightShip GHG Emissions Rating and the Environmental Score offer a real acknowledgement of the great work done by the ship owners and operators that go above and beyond compliance requirements to reduce the environmental impact of their vessels."

Market moves faster!





40 charterers factor in energy efficiency

- 2+ billion tons of cargo
- 25+% of global shipments
- 30,000 vessel movement per year
- 7 in 10 vets by RightShip clients have a GHG emission rating review

12+ ship owners publicly endorse GHG emissions rating

Financial Institutions

- ABN Amro, HSH Nordbank, KfW (4+)
- Factor vessels' energy efficiency into underwriting process

Ports incentive programs

- Environmental ratings basis for port fee discounts
- PMV Vancouver, Port Prince Rupert

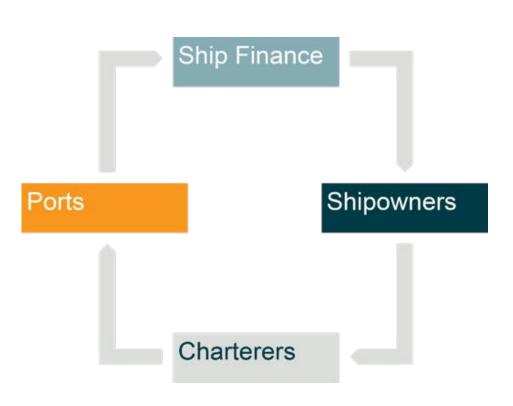


5 ~ 9 % savings of the Gross Freight Bill!



Tyndall Center - Conclusion

"Explicitly considering fuel efficiency in chartering decisions offers significant fuel, financial, and emissions savings"





Reducing Shipping's GHG Emissions Requires a Collaborative Approach





PORT PRINCE RUPERT

First years - 2014/2015

GHG Emissions Rating – Environmental Star Score

- Discounts \$113,872/\$140,246 to 140/133 vessels
 - Enviro Score 1 / 6 / 33 vessels with 5/4/3 Score
- 116/7/5 calls qualified through RightShip's C/B/A
- Access to rating provided free to ports



Atypical PIP



| GENERAL | SPECIFIC | TIER 1 (10%) | TIER 2 (20%) | TIER 3 (50%) |
|--------------------------|-----------------------------------|---|--|--|
| ENVIRONMENTAL PROGRAM | Green Marine | Level 3 GHG AND min Level 2 overall | Level 4 GHG AND min Level 2 overall | Level 5 GHG AND min Level 2 overall |
| | RightShip | GHG B,C OR Environmental 3+ (min GHG D) | GHG B AND Environmental 3+ | GHG A |
| | Environmental Ship Index (ESI) | Scores 20-30 | Scores >30-50 | Scores >50 |
| | Green Award | Award certificate | | |
| | Clean Shipping Index | Score of Yellow | Score of Green | |
| | Energy Efficiency Design Index | EEDI 5% better than required | EEDI 10% better than required | |







A reputed international flag

| Apr 2014 – Mar 2015 | A Rated Vessels | G Rated Vessels | Full Flag's Fleet | Global Fleet |
|----------------------------------|-----------------|-----------------|-------------------|--------------|
| Vessels | 82 | 25 | 2,638 | 73,874 |
| Inspections | 128 | 50 | 5,744 | 75,232 |
| Detentions | 0 | 1 | 64 | 2,121 |
| Deficiencies | 74 | 98 | 8,189 | 172,401 |
| Inspections with Deficiencies | 31 | 23 | 2,435 | 39,702 |
| Deficiencies per Inspection | 0.58 | 1.96 | 1.43 | 2.29 |
| % Inspections with Deficiencies | 24.22% | 46.00% | 42.39% | 52.77% |
| % Inspections with Detentions | 0% | 2.00% | 1.11% | 2.82% |





Sustainable Vessel Selection Pays





YOUR PAR

- Maritime Supply Chain be Safe, Secure & Profitable
- Accelerate industry sustainability working together
- Opportunity to *incentivize* energy efficiency, as an Environmentally Efficient Ship is a Sustainable Ship!

"Eco Vessels = Healthy / Profitable / Safer Vessels = Lower Risk"



iMuchas Gracias!

THANK YOU!

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