Pacific Basin CSR

*Group Vision*

- To be a shipping industry leader and the partner of choice for customers, staff, shareholders and other stakeholders *
  
  * “other stakeholders” includes environment and communities in which we exist

*Our core CSR tenet*

- Adoption of responsible practices reduces risk and enhances financial performance linked to our Group strategy and vision

- Moral obligation to do what we reasonably can + strong business case for taking action eg…

- Increasing fuel prices, increasing climate change and emissions-related legislation  
  » environmental decisions and actions we take now (will) make us competitively stronger
  » driving long-term sustainability and shareholder value
Pacific Basin CSR

being a good corporate citizen pays dividends

Our approach:

Environment
- Minimising our environmental impact
- Adopting energy-efficient, environmentally-friendly ship designs, technologies and practices

Workplace
- Looking after our people
- Ensuring their safety, fostering a happy and fulfilling workplace, and nurturing our talent and harnessing their performance potential

Community
- Behaving responsibly in our communities
- Engage shipping industry, responsibility in business world, positive contributions to closest worthy causes, etc
**Workplace**

- Healthy family/work balance, comfortable offices, etc, etc...

**Training**

- PB standards exceed STCW
- Extra investments, eg: MRM (partnering with Swedish P&I), BRM, ERM, simulator training
- Officer cadet recruit & training in Philippines, China
- Fleet Training Managers – on the job training
- 4 in-house training seminars a year for sea staff
- Voluntary training seminars run “by staff for staff”

**Diversity**

- Over 30 nationalities
- Fairly even age distribution

**Safety**

- Initiatives to mitigate risk in every task on board
- “22 Crew, 22 Owners” = crew manage the ship ON ship
- No-blame culture on board
- “Zero defects in external checks through good self-checking”
- “Nobody is perfect... but a team can be” (high-performance teamwork)
- Incidents feedback, learning OPM (“other people’s mistakes”)
Workplace

Safety, Training, Shipmanager Awards

- Lloyd’s List Awards Asia | 2011
  - Highly Commended Safety Award
  - Winner Shipmanager of the Year

- Hong Kong Shipping Register
  - 2010 Best Performing Ship Management Company
  - Green Awareness Award 2010
Our business is nothing without the dedication of seafarers who keep the global merchant fleet moving safely. They and their families face emotional and practical challenges through separation for months. Life for the seafarer moving back ashore is not always any easier. So we donate and contribute to seafarer welfare:

- $$$ donations
- Asian ambassador for Sailors’ Society
- Minibus sponsorship in Manila
- Significant employer of PRC & Filipino crew

Having a say in shipping industry responsibility (“Doing the right thing”) affording us a voice in international dialogue on topical issues (carbon) and future legislation.
Environment

**INPUTS**
- Fuel Oil
- Paints
- Ballast Water
- Food & Packaging
- Dunnage
  (cargo packing material)
- Lubricants
- Chemicals

**Atmospheric Emissions**
- Carbon Dioxide (CO₂)
  & other greenhouse gases
- Sulphur Oxides (SO₂)
- Nitrogen Oxides (NOₓ)
- Particulate Matter (PM)
- Volatile Organic Compounds (VOCs)

**Marine Discharge**
- Bilge water
- Ballast water
- Sewage & grey water
- Garbage/food waste
- Toxic leaching from paint
- Cargo residue
- Accidental discharges

**Shore Discharge**
- Garbage
- Waste dunnage
- Cargo residue
- Sludge
- Hazardous waste
- Expended parts

**Other Outputs**
- Noise
- Odour
- Visual impact
Environment

SHIP-BASED INITIATIVES
Summary of our main initiatives to reduce our environmental impact

REDUCING ATMOSPHERIC EMISSIONS AND FUEL CONSUMPTION

- Improving engine performance
  - Fuel combustion catalysts achieve fuel oil savings, cleaner combustion and reduced engine overhaul frequency
  - Computer programme determines optimal overhaul intervals for principle machinery components to maximise engine efficiency

- Improving hull and propulsion hydrodynamics
  - Propeller boss cap fins can improve fuel efficiency by up to 5%
  - Computer-based systems monitor and track our main engine performance and fuel efficiency
  - Anti-fouling paint applied over an increased hull area reduces drag even when fully laden
  - We invest in continual fleet renewal for environmental and economic reasons, focusing on new ships and working with designers on the latest innovative fuel-efficient hull designs and machinery to shave several percent off fuel consumption of the previous generation of similar ships

- Adoption of fuel-efficient operational measures
  - Improved course-keeping and reduction in unnecessary rudder movements achieved through the use of upgraded self-steering, adaptive autopilot systems which adjust automatically to load characteristics and weather conditions
  - Fuel-efficient voyage planning (combining marine weather and real-time ocean currents data), Right Speed Programme, cylinder lubrication optimisation and careful scheduling of our large fleet of ships to maximise utilisation and minimise ballast passages result in increased detention and reduced voyage times

MONITORING THE DEVELOPMENT OF FUTURE GREEN TECHNOLOGIES

- Exhaust filtration – We are closely tracking the development of exhaust gas scrubbing technology to reduce greenhouse gas emissions in exhaust fumes although, for now, scrubbing equipment is not sufficiently viable for use on our ships

- New, clean propulsion technologies – We hope and expect new, clean technologies to eventually replace the fossil fuel burning internal combustion engine to propel commercial vessels in the longer term. Meanwhile we are encouraged by developments in clean technology being trialled as auxiliary sources of propulsion (such as large towing tugs) but do not yet consider any of these technologies to be sufficiently advanced, practical or cost-effective for adoption on our ships

- Combustion of cleaner fuel
  - The shipping industry has long been dependent on dirty, high-sulphur fuel oil, but new requirements for the use (and supply) of increasingly cleaner, low-sulphur fuel in a number of Emission Control Areas (ECAs) and globally should mark the beginning of a longer-term effort to improve the quality of fossil fuels made available to the maritime industry

IMPROVING WASTE MANAGEMENT

- Garbage compactors on our ships facilitate easy storage of operational garbage (excluding food waste and cargo residues) until it can be disposed of responsibly ashore

REDUCING MARINE DISCHARGES

- Oil spill prevention
  - Our ISM-compliant safety management system prescribes strict systems controls and procedural safeguards to prevent fuel oil spillage and our crew are trained in oil spill response in the event that accidental spillage should occur

- Bilge water management
  - Oily water separators minimise the risk of inadvertently pumping out contaminated bilge water

- Ballast water management
  - Our ballast water management plans set out strict ballast operations practices in compliance with the IMO’s ballast water management convention and equivalent local port state regulations

- Hull paint considerations
  - We phased out our use of toxic TBT-based antifouling paints well in advance of 2008 regulatory deadlines and now use biocide-based paints while monitoring advances in more eco-friendly paints
Environment

Reducing Emissions, Consumption

Maximise engine efficiency:
• Fuel combustion catalysts
• Optimise machinery overhaul intervals
• Cylinder lubrication optimisation

Improve hydrodynamics:
• Propeller boss cap fins
• Effective anti-fouling on increased hull area

Fuel-efficient operating practices:
• Upgraded adaptive autopilot system (improved course-keeping and reduced rudder movements)
• Fuel-efficient voyage planning
• Careful scheduling of our large fleet (minimise ballast legs, maximise utilisation)
• Right Speed Programme

Monitoring development of new technologies:
• Scrubbers, tow kites, solar sails, Fletner rotors & new cleaner fuels

Fleet Renewal:
Working with designers and builders on latest innovative, fuel-efficient hull designs

Careful selection of machinery for reliable operations

Focus on operationally-friendly vessel designs
Environment

Environmental Awards

Lloyd's List Awards 2011
Winner
Environment Award
Pacific Basin Shipping

Green Award 2012
Pacific Basin Shipping (HK) Limited

Lloyd's List Awards Asia 2011
Winner
Environment Award
Pacific Basin Shipping
Eco-Design Ships

Evolution of Handysize design and performance – Jay K Pillai