

The logo for Overseas Shipholding Group, Inc. (OSG) features the letters 'OSG' in a bold, white, sans-serif font. The letter 'O' is stylized with three horizontal wavy lines underneath it, representing water or waves. The background of the slide is a photograph of a large white oil tanker ship at sea, with a grid overlay. The ship's superstructure is visible, including the bridge and various pipes and railings. The sky is a clear blue.

Overseas Shipholding Group, Inc.

## 2008 API Tanker Conference Strategies for Continuous Improvement

**Morten Arntzen**  
President and CEO

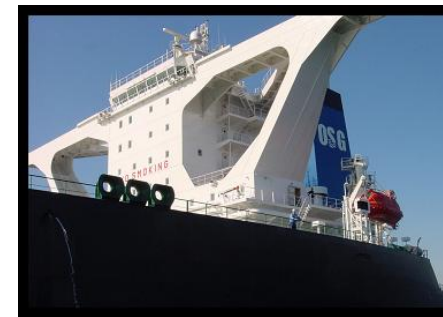
# Environmental and Quality Platform

**Our desire to run the cleanest, safest and most reliable fleet in the industry remains the single most important strategic imperative of OSG**



# What Was Then .... This is Now

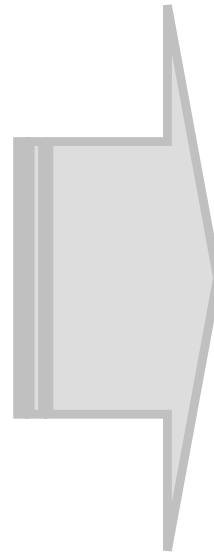
- ❑ It used to be that the only thing that mattered in technical management was to run a ship as cheaply as possible.
- ❑ Ship operations was something unseemly you did in between the glorious acts of buying and selling ships for huge profits.
- ❑ In the shipping world today, that is not a strategy that will be rewarded with long-term success.



**A holistic approach and commitment at all levels in the organization**

## Challenges

- Political and public expectations
- Complex multi-jurisdictional regulations
- Continually changing regulations
- Practical implementation issues
- Crew awareness and motivation



## Solutions

- Information transparency
- Flexible, quality, global SQE
- Software, tools and investment in systems
- More education, more training
- Communication, communication, and more communication





Tampa Training Facility



Manila Office

## Investing in our Crews

- ❑ **International manning agent strategy changes**
- ❑ **Training and education under transformation**
  - Comprehensive training structure and requirements
  - In-house training programs
  - Training matrix
- ❑ **Professional development efforts**
  - Cadet to Master/Chief to shore side opportunities
  - Expanded opportunities for American cadets to train through a MARAD agreement with 6 U.S. academies
  - Philippine Maritime Academy cadet sponsorship program
- ❑ **Quality of life programs**
- ❑ **39 vessel newbuild program underway through 2011**
  - 450 mariners needed to support U.S. Fleet growth (14 ships)
  - 900 mariners needed for International Flag fleet (25 ships)

# Maintenance Programs

## □ Reliability Based Maintenance

- Maintenance Strategy Optimization
- Condition monitoring and trending
- Identify critical operations

## □ Pit Stop Maintenance

- Working with engine manufacturers to participate in major overhaul of diesel generator engines
- Added benefit of ensuring crews are trained on all aspects of overhaul and operation

## □ Hull Integrity Program

- Lloyd's Register-developed process of monitoring and maintaining vessel structure
- Standardized reporting systems
- Crew and office staff trained in inspection techniques
- Analysis of inspection results to identify trends and problems



**We are modeling our  
maintenance strategy  
similar to the  
aircraft industry**

uality



One consistent quality standard across the entire fleet





## ❑ Risk Assessment

- Identify and mitigate hazards
- Tool Box meetings

## ❑ Near Miss Reporting

- Trend analysis

## ❑ Root Cause Analysis

- Trend analysis

## ❑ Open Reporting

- 218 reports received in 2007
- Unvarnished feedback to senior management
- Top issues: crew relief, missing spare parts, equipment repairs, safety issues and environmental concerns.

## ❑ Performance Reporting

- KPIs and Operations Dashboard

## Q1 U.S. Fleet Near Miss Report

**Parameters**  
Select values for the following parameters:  
\* Indicates required field

Office: US  
Category: Near Miss  
Go

**Table**  
Tools: Layout Sort Rows and Columns

Page Items: Year: 2008 Quarter: <All> Month: <All>  
Fleet: <All> Ship: <All> Sub Category: <All>

Up: 25 Rows Down: Rows 1-25 of 112

	Incident Date	Sub Category	Location	Title
1	DILIGENCE 11-MAR-2008	I-MECHANICAL FAILURE	MOBILE, AL	CRANE OPERATION NEAR MISS
2	ENTERPRISE 19-MAR-2008		TAMPA, FL	FAN IN LOWER FOREPEAK
3	GALEHA BAY 16-JAN-2008	I-MECHANICAL FAILURE	CORPUS CHRISTI ANCHORAGE	STBD ANCHOR - RIDING PAWL
4	GALEHA BAY 17-JAN-2008	I-MECHANICAL FAILURE	CORPUS CHRISTI, TX	LOSS OF ASSIST TUG ENGINE
5	GALEHA BAY 17-JAN-2008	I-MECHANICAL FAILURE	CORPUS CHRISTI, TX	LOSS OF LINE BOAT ENGINE
6	GALEHA BAY 23-JAN-2008		SEA	A-DECK WTD HANDLES
7	GALEHA BAY 23-JAN-2008		SEA	FIRE DAMPER COUNTERWEIGHT
8	GALEHA BAY 28-JAN-2008		CORPUS CHRISTI, TX	VALERO TERMINALS - MOORING LINE ARRANGEMENT/WHITE
9	GALEHA BAY 17-FEB-2008		@ SEA	EMO DIESEL GEN
10	GALEHA BAY 06-MAR-2008	I-NOT FOLLOWWG PROCEDURES	AT SEA	RELEASE OF LIFEBOAT GRIPES
11	GALEHA BAY 12-MAR-2008		AT SEA	EMERGENCY DIESEL OVERSPEED
12	GALEHA BAY 15-MAR-2008		TAMPA, FL - BERTH #226	RAPID RELEASE OF TUG LINE
13	GALEHA BAY 15-APR-2008	NM-MATERIALS HANDLING	IG DECK LINE MAIN DECK	FAILURE OF LIFTING GEAR
14	GALEHA BAY 18-APR-2008		CORPUS CHRISTI, TX - VALE	PARTED MOORING LINE STOPPER
15	GALEHA BAY 18-APR-2008		CORPUS CHRISTI, TX	OPEN TANK VALVE
16	GALEHA BAY 25-APR-2008	NM-HOUSEKEEPING	AT SEA	FALLING CONTROL BOX
17	HONOUR 29-FEB-2008		BP AMOCO	LEAKING VALVE AT DOCK HOSE
18	HOUSTON 29-FEB-2008	NM-DRILLS/EMERG RESPONSE		UNMANNED CHARGED FIRE HOSE
19	HOUSTON 29-FEB-2008			SLIP DUE TO WORN SHOES
20	HOUSTON 26-MAR-2008		@ SEA	GALLEY OVEN
21	HOUSTON 08-APR-2008		AT SEA	NEAR MISS SLIPPING ON DECK
22	HOUSTON 09-APR-2008	NM-MATERIALS HANDLING	AT ANCHOR LONG BEACH	ONE HAND FOR THE SHIP ONE AND FOR YOU

## Loss of Containment

No. of Incidents (internal)	2006	2007	2008 Goal	Actual Jan 1 - Apr 30
Athens - Product Fleet	20	11	0	6
Newcastle - Crude Fleet	11	63	0	22
Tampa - U.S. Flag Fleet	26	59	0	33
<i>Total</i>	57	133	0	61
Volume (in liters)	9,169	5,369	3,000	3,565

## Spills to Sea

Number of Incidents	2006	2007	2008 Goal	Actual Jan 1 - Apr 30
Athens - Product Fleet	1	0	0	0
Newcastle - Crude Fleet	3	1	0	2
Tampa - U.S. Flag Fleet	4	4	0	4
<i>Total</i>	8	5	0	6
Volume (in liters)	384,570.24	215.0	0	0.34



## ❑ Operations Integrity Group

- An 11-person team of shoreside and senior sea staff who conduct vessel audits of fleet and investigations to ensure compliance with Company vessel operating policies
- A critical element of our assurance program
- Drives consistency and sharing of fleet-wide best practices
- More than 200 vessel audits in 2006 and 2007

## ❑ Operations Compliance Officer

- Reports jointly to OSG's CEO and Board
- Audits all fleet and shoreside technical operations
- Ensures training programs are best-in-class

## ❑ External Audit Group

- Responsible for separate, independent audit of the fleet and offices

## ❑ Quarterly Technical Management Meetings

## ❑ Sea-to-Shore Communication Programs

- Fleet visits generated 300+ improvement ideas
- Independent action encouraged to avoid incidents to ships, crew and the environment





- ❑ **Reduce emission exhaust gases**
  - Advocate of cleaner distillate fuels
- ❑ **Hull coatings**
  - 8 vessels coated with proven results in fuel savings
  - Propeller coatings planned for VLCC fleet
- ❑ **Emission calculations**
- ❑ **Pollution prevention equipment**
  - OWS, ODME, Envirollogger
- ❑ **Recycling programs**
  - Zero Solid Waste to Sea
  - PC recycling program



## Few Thoughts To Leave You With

- ❑ **Public expectations are reality.**
- ❑ **Quality, or lack thereof, should not be a trade secret.**
- ❑ **As remote monitoring expands, who's in charge, the master or the superintendent?**
- ❑ **A culture of compliance starts with the Board and involves everyone in the company.**

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[www.osg.com](http://www.osg.com)

