

Green Flag Program

Voluntary Vessel Speed Reduction



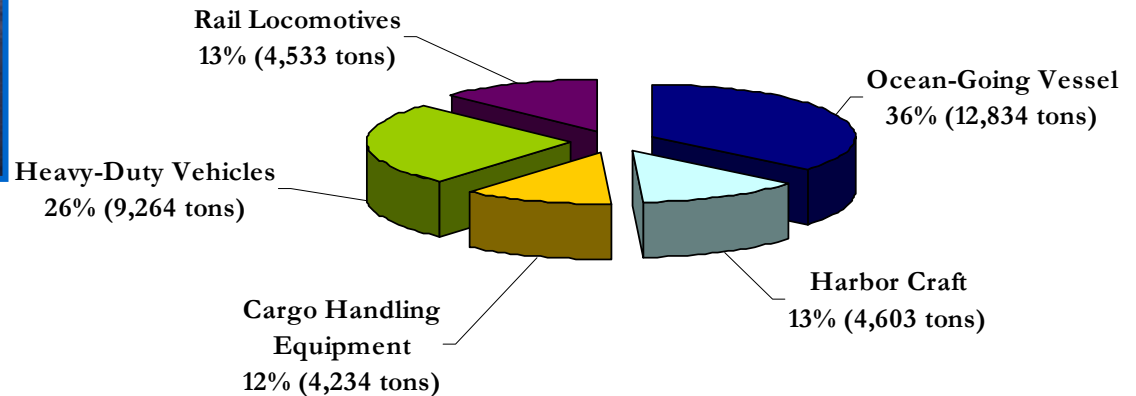
Rick Cameron
Manager of Environmental Planning
Port of Long Beach

Purpose of the Program



- Slowing Ship Speed Reduces NOx Emissions from Vessels

POLB Port Related NOx Emissions (2002)

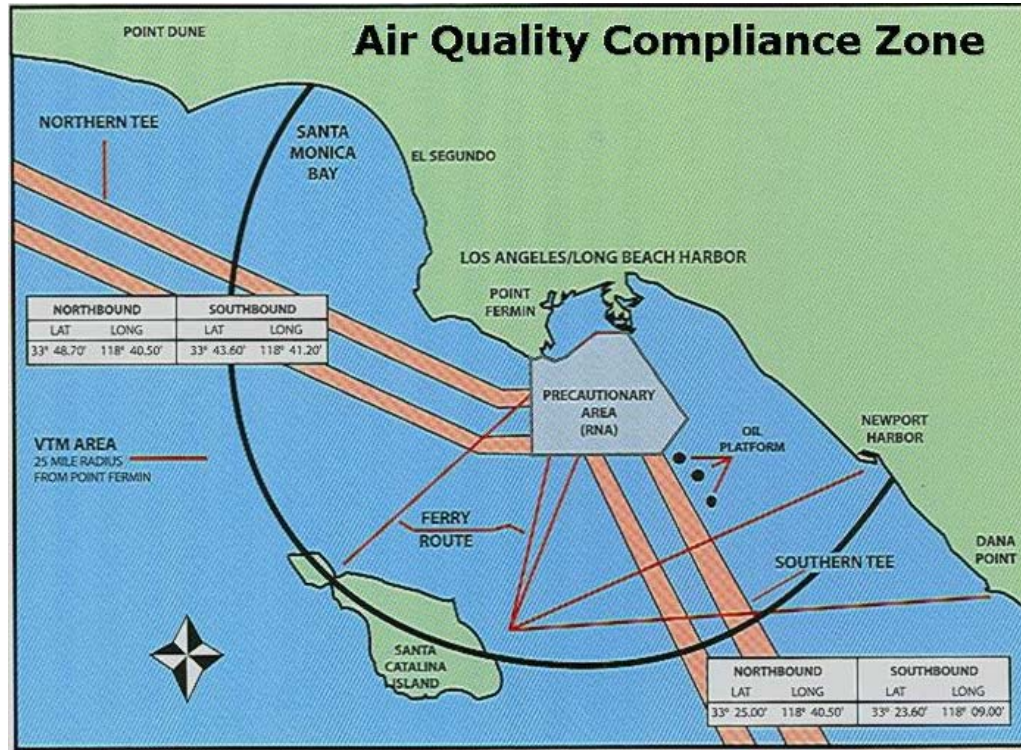


Memorandum of Understanding Between:



- Port of Long Beach
- South Coast Air Quality Management District (AQMD)
- Pacific Merchant Shipping Association
- Port of Los Angeles
- California Air Resources Board
- Marine Exchange of Southern California

Vessel Speed Reduction Zone (12 Knots 20 Nautical Miles from Point Fermin)



Port of Long Beach

Green Flag Program Incentives & Recognition

- Implemented as a tariff incentive
- Operators whose fleets are 90% compliant for a 12-month period receive a 15% dockage reduction for the following year
- Vessels that are 100% compliant for a 12-month period qualify to fly the Port of Long Beach Green Flag for the following year



Monitoring Compliance



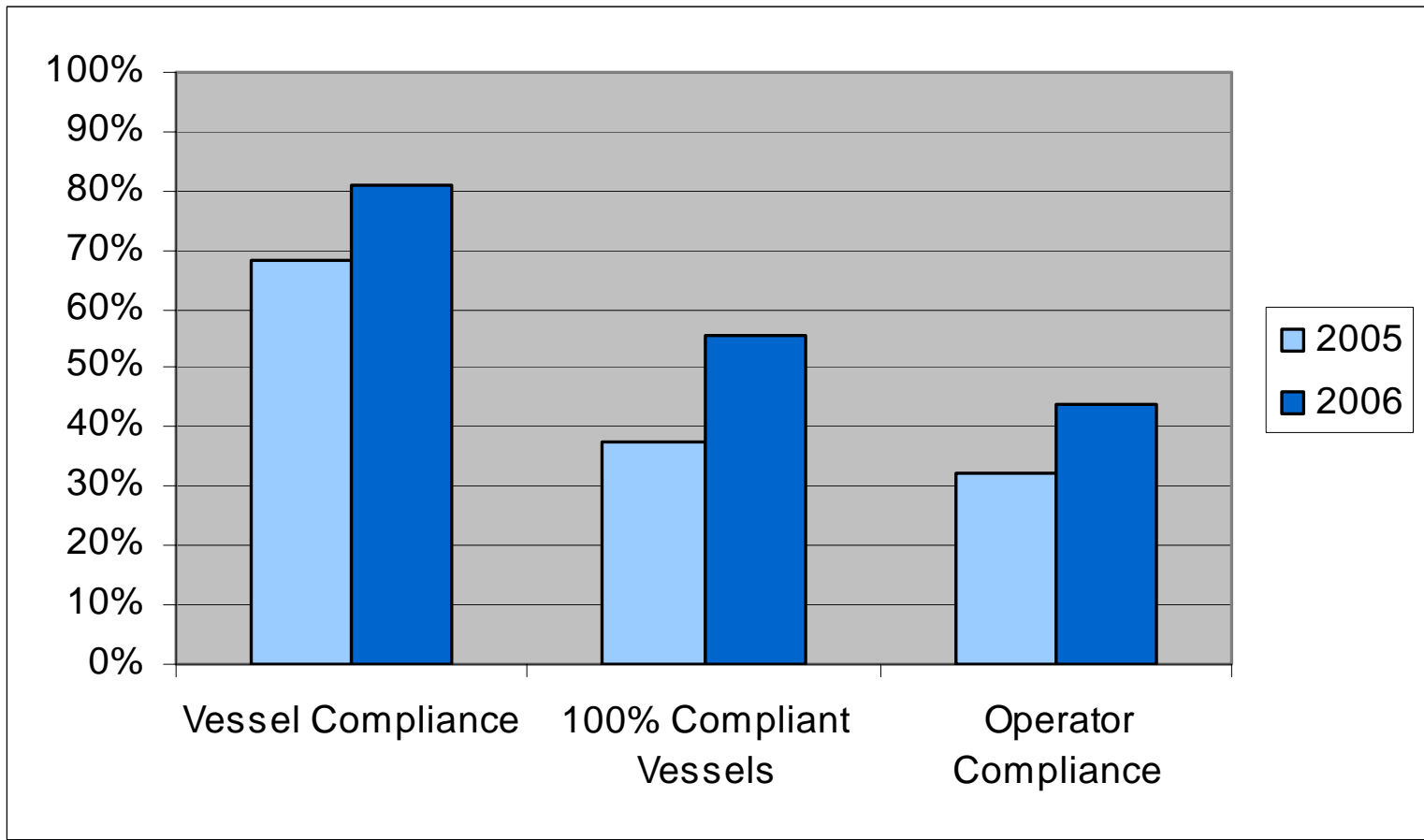
The Marine Exchange of Southern California is responsible for measuring compliance with the Voluntary Vessel Speed Reduction Program

Tracking Compliance at the Port of Long Beach



- Compliance Data is collected from Marine Exchange
- Vessel data is downloaded into the Port of Long Beach tracking system
- Automatic Reports can be generated by Operator, Vessel, and Terminal

Program Performance



2006 Compliance Highlights

- *120 operators were 90% compliant and qualified for reduced dockage fees in 2007*
- *507 POLB vessels were 100% compliant and qualified to fly the 2006 Port of Long Beach Green Flag*
- *Average Vessel Compliance for 2006 was 81% an increase of 13% from 2005.*
- *Compliance by December 2006 was up to 85%*
- *NOx reduction estimated to be greater than 1 ton per day*

Clean Air Action Plan



- VSR is addressed in measure OGV-1
- Extending from 20 nm out to 40 nm Will be implemented as a lease requirement
- Tariff requirement if compliance doesn't reach 95% by end of 2007

Thank You!

Questions?

