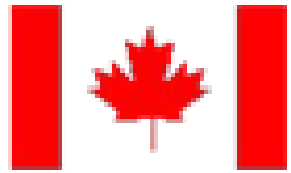


Transport
Canada



Joint Ballast Tank Exam Program



Development of Joint Program

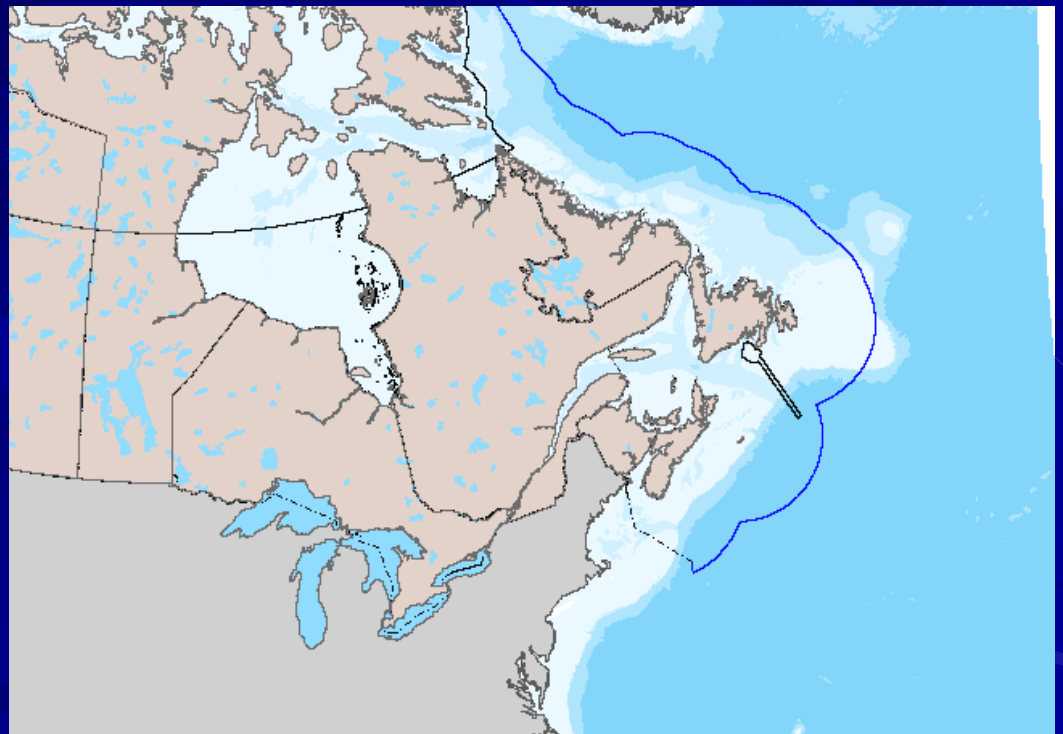
- 1991 - USCG Marine Safety Detachment (MSD) Massena, NY began sampling ballast water
- 1997 - SLS Corporations started to test ballast water as part of new joint vessel safety exam program
- 2005 - Transport Canada Marine Safety began sampling ballast tanks prior to vessels entering the St. Lawrence Seaway
- 2006 to present – Program & partnerships continue to grow

Great Lakes Ballast Water Working Group

- Formed in January 2006
- Harmonize efforts between USCG, TC, SLSMC, SLSDC
- Established inspection target criteria
- Shared data
- Developed job aids

Ballast tank review process

- 96 hours prior to entering Canada's EEZ a vessel provides ballast tank information to Transport Canada Marine Safety (TCMS)
- Vessels with noncompliant ballast tanks are notified by TCMS and have the opportunity to flush ballast tanks





ST. LAWRENCE SEAWAY BALLAST WATER REPORTING FORM

96 Hour Report (Canadian Requirement) 24 Hour Report (U.S. Requirement) AMENDED FORM Yes No

1. VESSEL INFORMATION	2. VOYAGE INFORMATION	3. BALLAST WATER USAGE AND CAPACITY		
Vessel Name:	Arrival Port:	<i>Specify Units Below (m³, MT, LT, ST, gal)</i>		
IMO Number:	Arrival Date (DD/MM/YYYY):	Total Ballast Water on Board:		
Owner:	Agent:	Volume	Units	No. of Tanks in Ballast
Type:	Last Port		m ³	
GT:	Next Port	Total Ballast Water Capacity:		
Date/Time of Submission:	Next Port (2)	Volume	Units	Total No. of Tanks on Ship
Flag:	Next Port (3)		m ³	

4. BALLAST WATER MANAGEMENT

Total No. Ballast Water Tanks to be discharged:

How many tanks:

Underwent Exchange:

Underwent Alternative Management:

Please specify alternative method(s) used, if any:

If no ballast water management conducted, state reason why not:

Ballast water management plan on board? YES NO

Management plan implemented? YES NO

IMO ballast water guidelines on board [res. A.868(20)]? YES NO

5. BALLAST WATER HISTORY: Record all tanks.

Tanks/Holds List multiple sources/ tanks separately	TANK CAPACITY	BW SOURCES			BW MANAGEMENT PRACTICES								PROPOSED BW DISCHARGE				
		DATE DD/MM/YYYY	PORT or LAT. LONG.	VOLUME (units)	DATE DD/MM/YYYY	Start Point Lat. & Long.	End Point Lat. & Long.	VOLUME (units)	% Exch	METHOD (ER/FT/ALT)	WAVE HT. (m)	SALINITY (units) ppt	DATE DD/MM/YYYY	PORT or LAT. LONG.	VOLUME (units)	SALINITY (units) ppt	

Looking for exchange 200 NM from shore in waters 2,000 m deep

Ballast Water Tank Codes: Forepeak = FP, Aftpeak = AP, Double Bottom = DB, Wing = WT, Topside = TS, Cargo Hold = CH, Other = O, ER = Empty/Refill, FT=Flow Through, ALT= Alternate Method

6. Will water be added to any tanks containing only residual ballast and sediment, and then subsequently discharged during the same voyage? YES NO

7. If the answer to # 6 is YES:

a) Has the ship complied with best management practices? YES NO

b) Has the residual ballast water been exposed to salinity conditions equivalent to ballast exchange? YES NO

8. RESPONSIBLE OFFICER'S NAME AND TITLE:

Ballast Water Reporting Form

- BWRF is submitted to the U.S. Coast Guard in Massena, NY at least 24 hours prior to arriving in Montreal
- Captures any updates to a vessel's ballast tanks as the vessel changes draft and trim to enter Saint Lawrence Seaway
- BWRF is again reviewed for accuracy

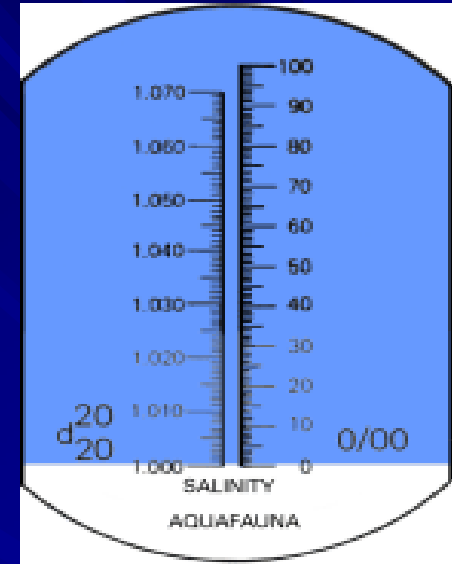
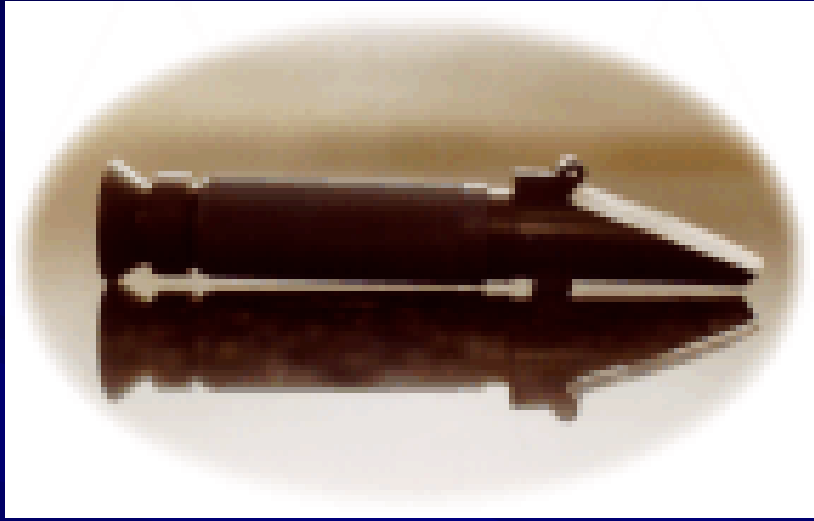
Exam scheduling

- 100% of vessels are targeted for inspection by joint team
 - First trip
 - Exam completed during Enhanced Seaway Inspection in Montreal
 - Subsequent trips
 - TC: If vessel stops prior to Saint Lawrence Seaway
 - SLSMC/SLSDC/USCG: During the vessel's transit at Saint Lambert Lock, Montreal or Snell Lock, Massena, NY
- Agencies regularly communicate with each other to coordinate efforts

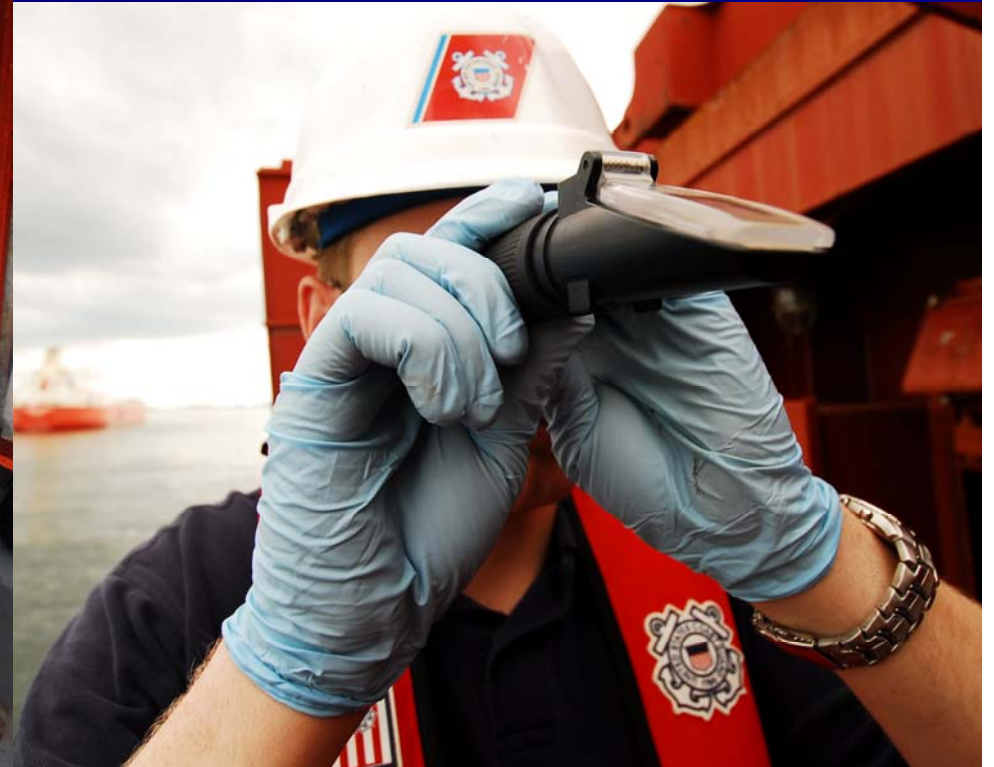
On board exam

- 27 item questionnaire is completed by the lead agency
 - Applicable ballast water references & regulations onboard
 - Ballast Water Management Plan examined
 - Crew knowledge assessed
 - Records reviewed
- Tanks are sampled and water tested for salinity

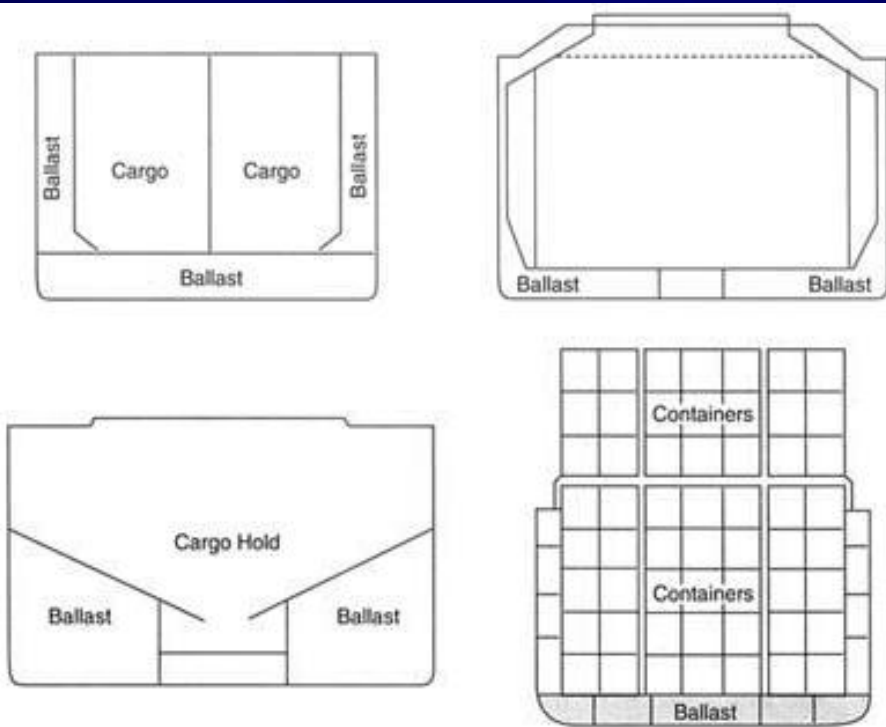
Testing Equipment



Testing with refractometer



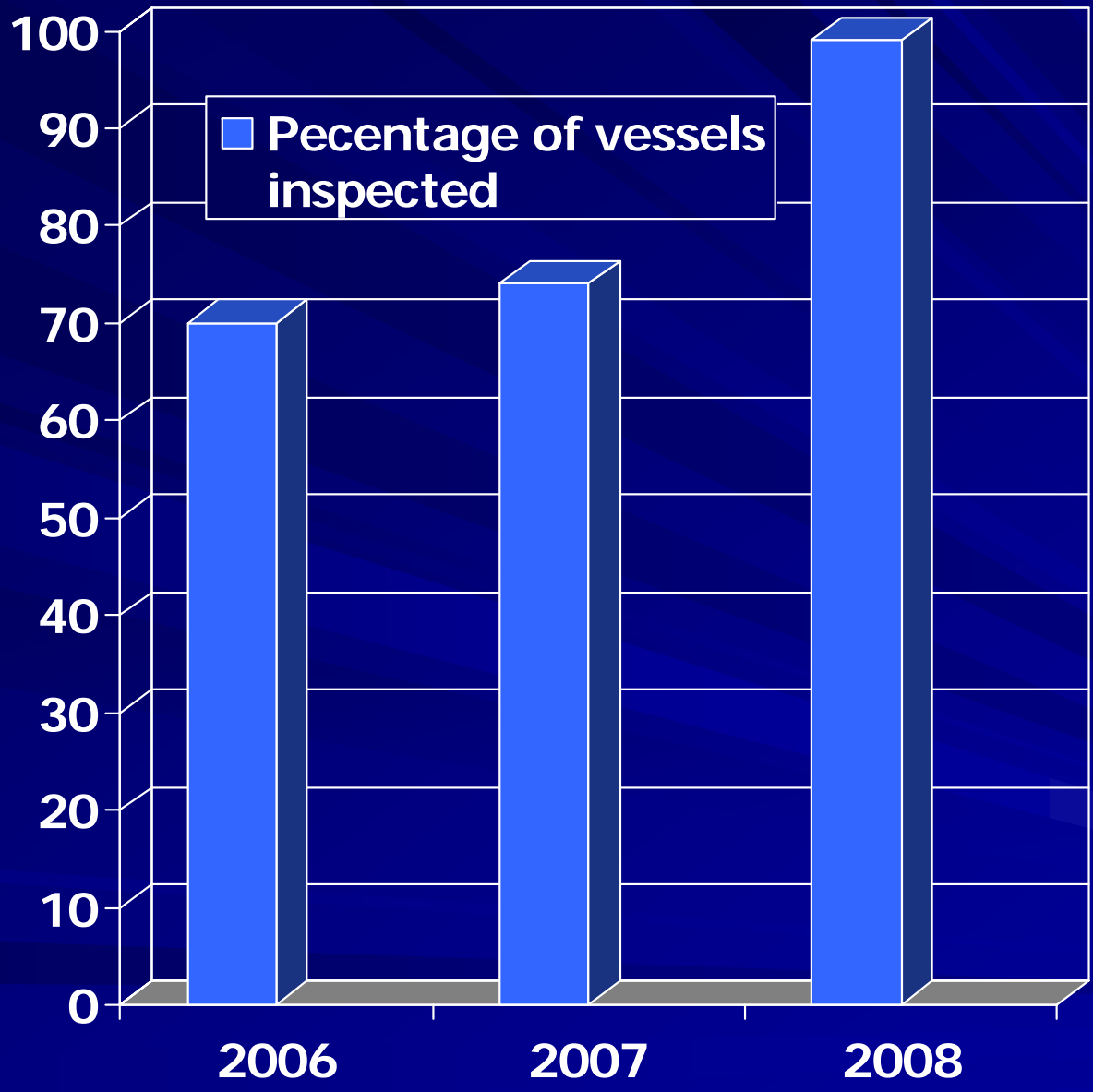
Sampling challenges



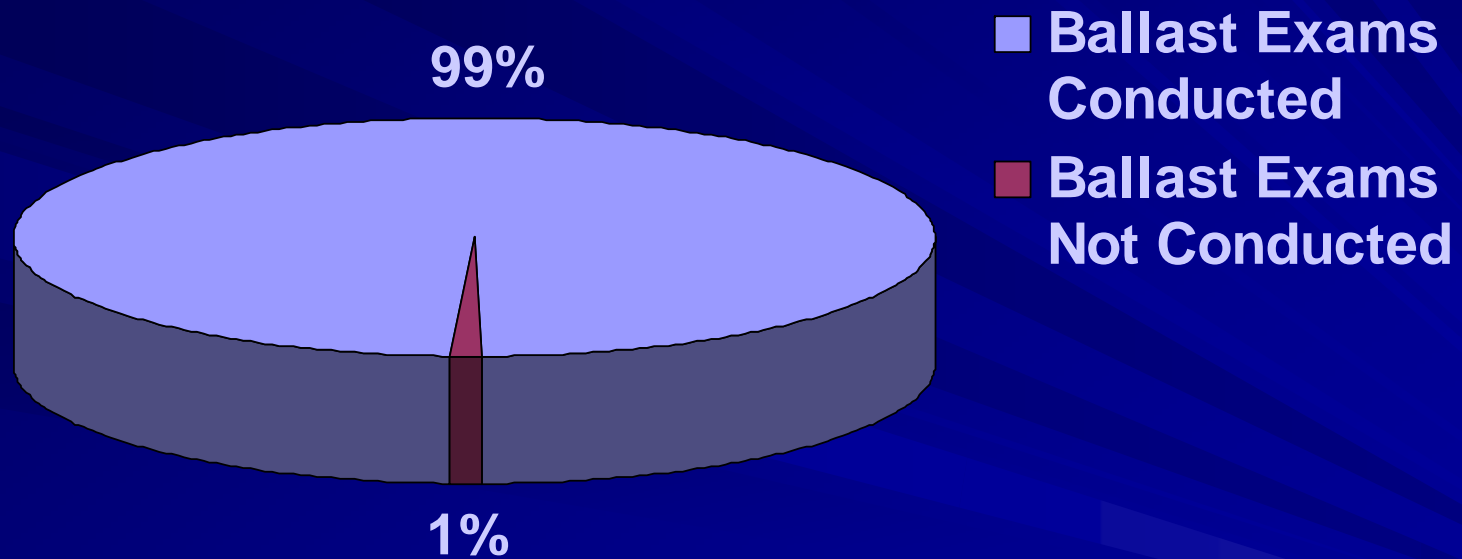
- Sounding tube design
 - Water trapped in bends
- Stratification
 - Salt and fresh water in tube
- Previous contents still in sounding tube

Post Exam

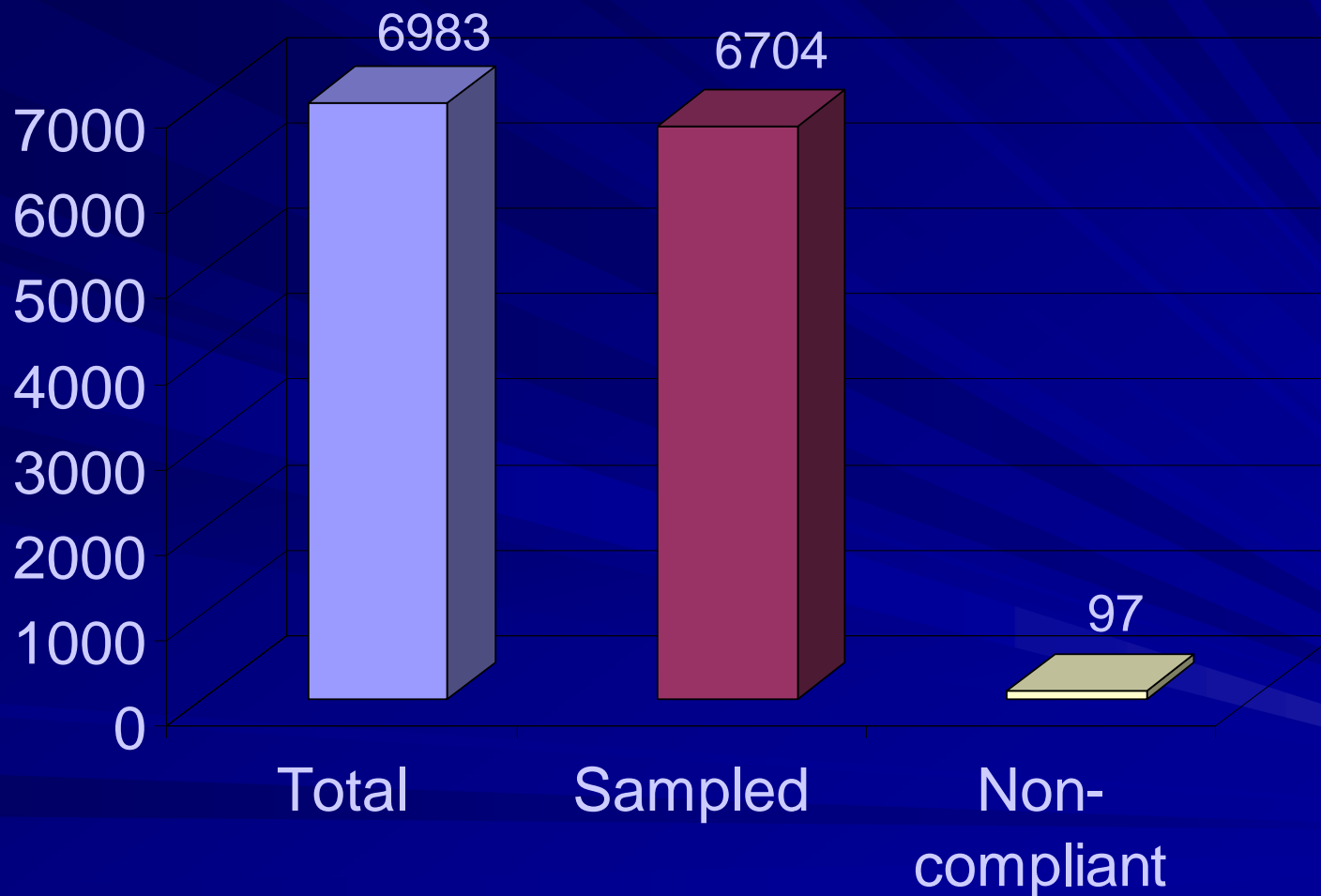
- Vessel compliance information and test results are entered into a joint database
- Vessels with deficiencies are noted and targeted for follow up exams
- Follow on ports engaged as necessary
- Vessels with retention letters have their ballast tanks re-examined prior to departing the St. Lawrence Seaway to verify compliance



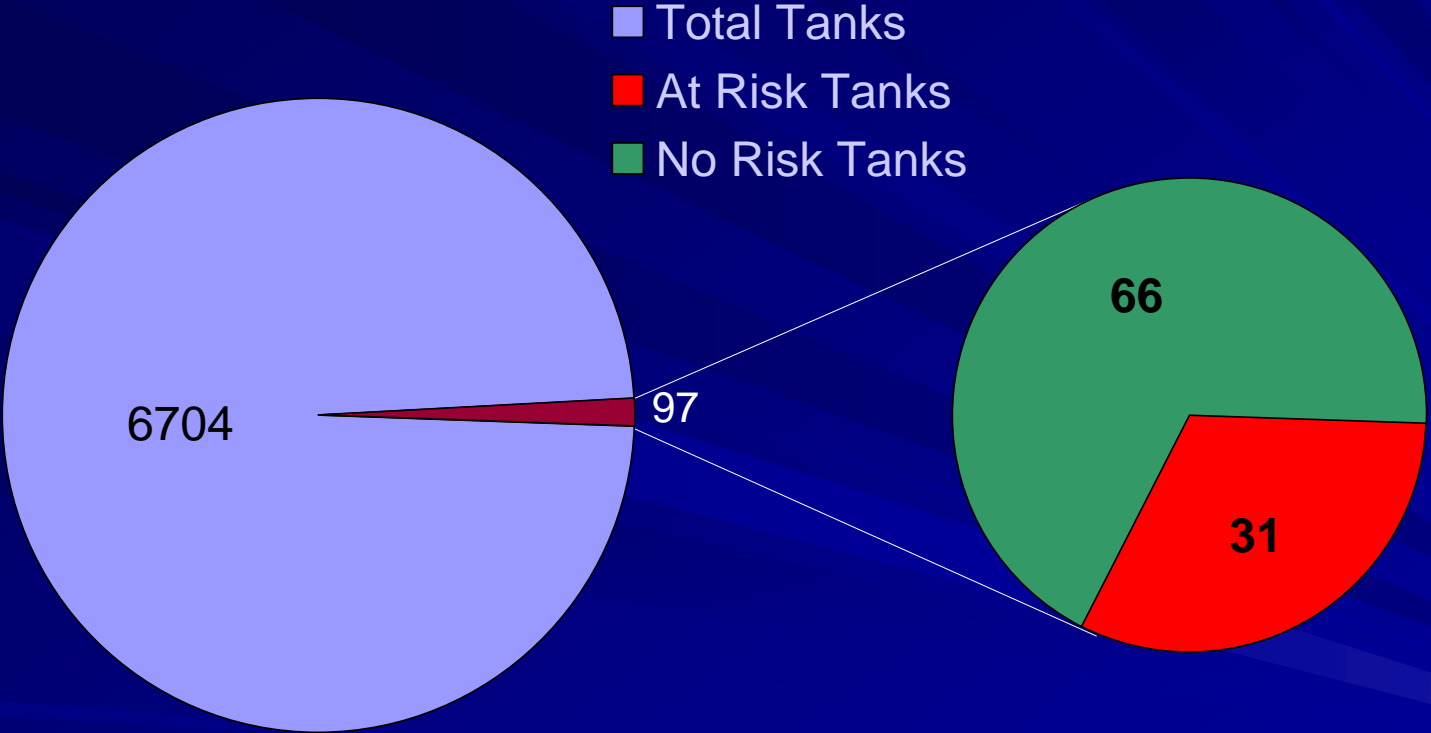
2008 Ballast Exams Completed on Foreign Vessel Transits Bound For Great Lakes System



2008 Ballast Tank Sampling Summary



2008 Ballast Tank Summary



2008 Results

- **318 Ships bound for Great Lakes examined**
- **100% ballast water reporting forms checked**
- **96% tanks sampled**
- **98.6% compliance rate**
- **100% of non compliant water retained on board**
- **10 USCG & 18 TCMS Letters of Warning**
- **1 USCG Notice of Violation (fine)**

Questions?