



Amphibious Vessel Casualties In Perspective

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Topics

- The Coast Guard's Database (MISLE)
- Coast Guard Uses Of Inspection/Casualty Data
- The Passenger Vessel Population
- Amphibious Vessel Casualties
- Amphibious Vessel Inspection Deficiencies

The CG MISLE System

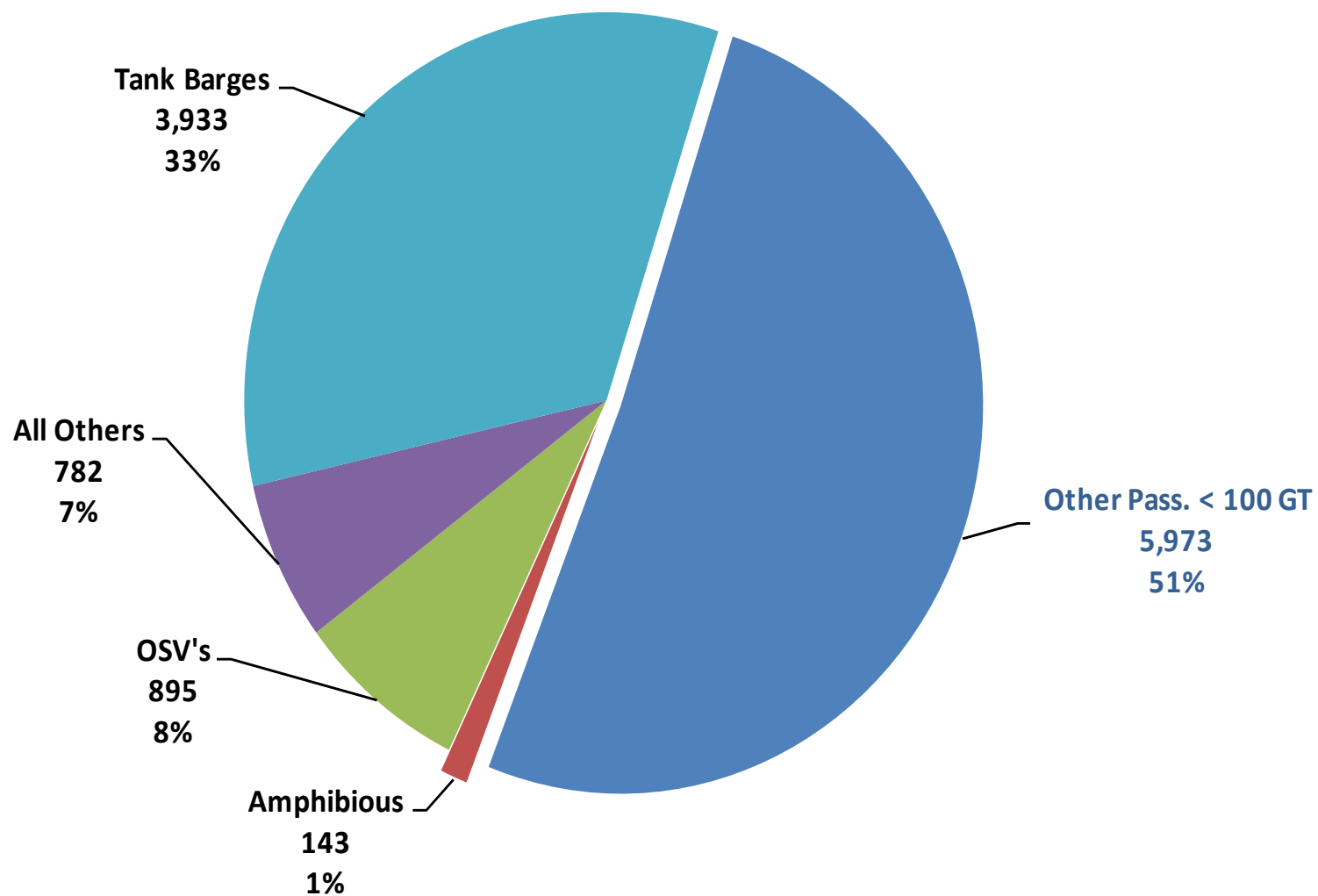
MISLE (Marine Information for Safety & Law Enforcement)

- Web-based, real-time, relational database
- 2002 – present
- Links vessels to CG activities, such as Inspections, Casualties and Search & Rescue
- Includes historic data from predecessor system (MSIS)

CG Uses Of Casualty Data

- Develop new & revised regulations
- Provide feedback to inspectors
- Provide feedback to industry, (Safety alerts)
- Advisory committees & partnerships, (PVA)
- Other agencies (MARAD, NIOSH, NOAA)
- Academia & Public uses. (Internet, FOIA)

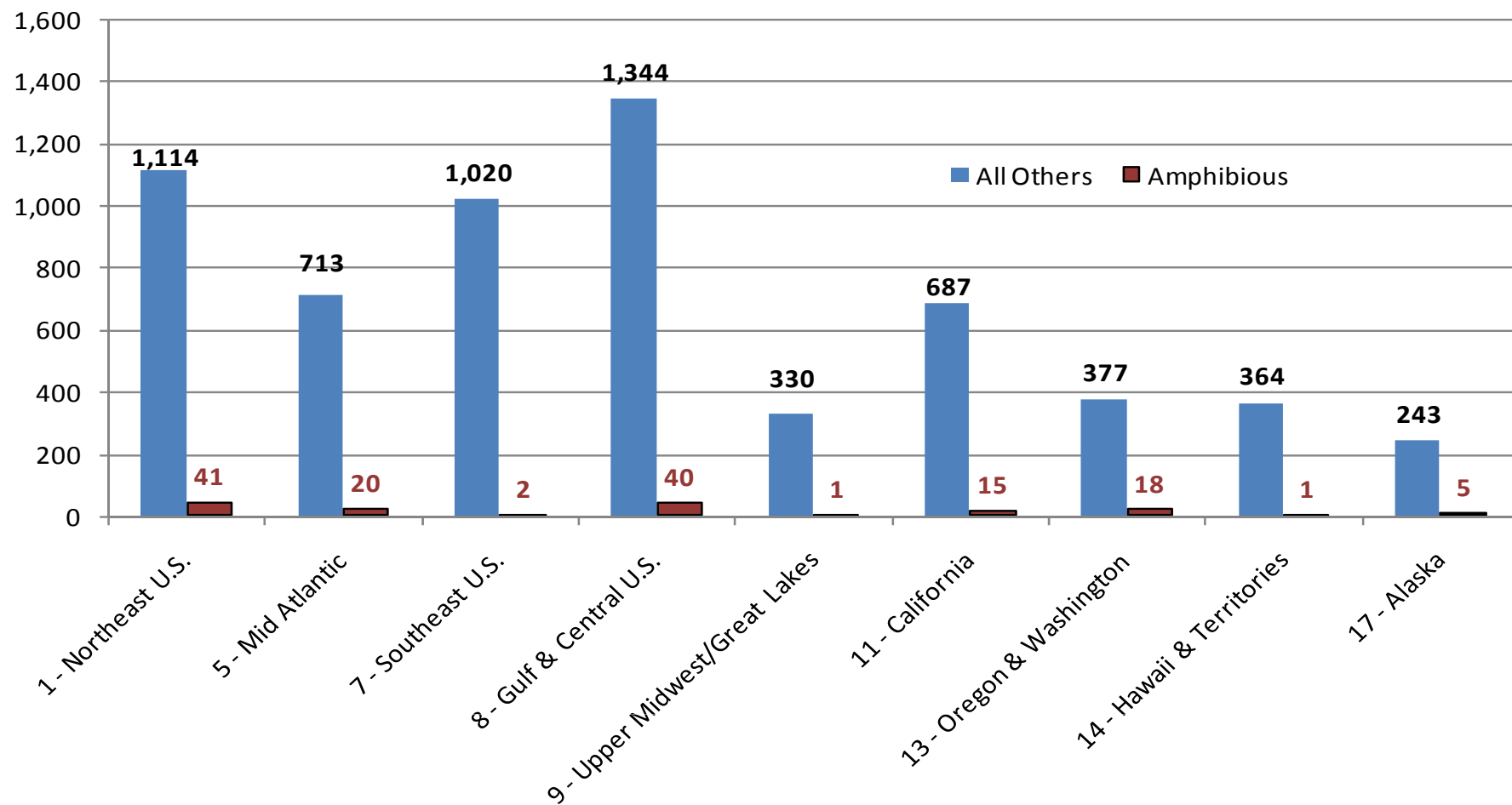
Inspected Vessels In The U. S.





Inspected Amphibious Vessels	
Vessel Type	Vessels
WWII DUKW-Stretch	45
WWII DUKW-Fleet	40
DUKW-Truck	29
Hydra-Terra	25
LARC	3
Trolley Boat	1
Total	143

Inspected Passenger Vessels (T & K) By Coast Guard District



Vessel Casualties

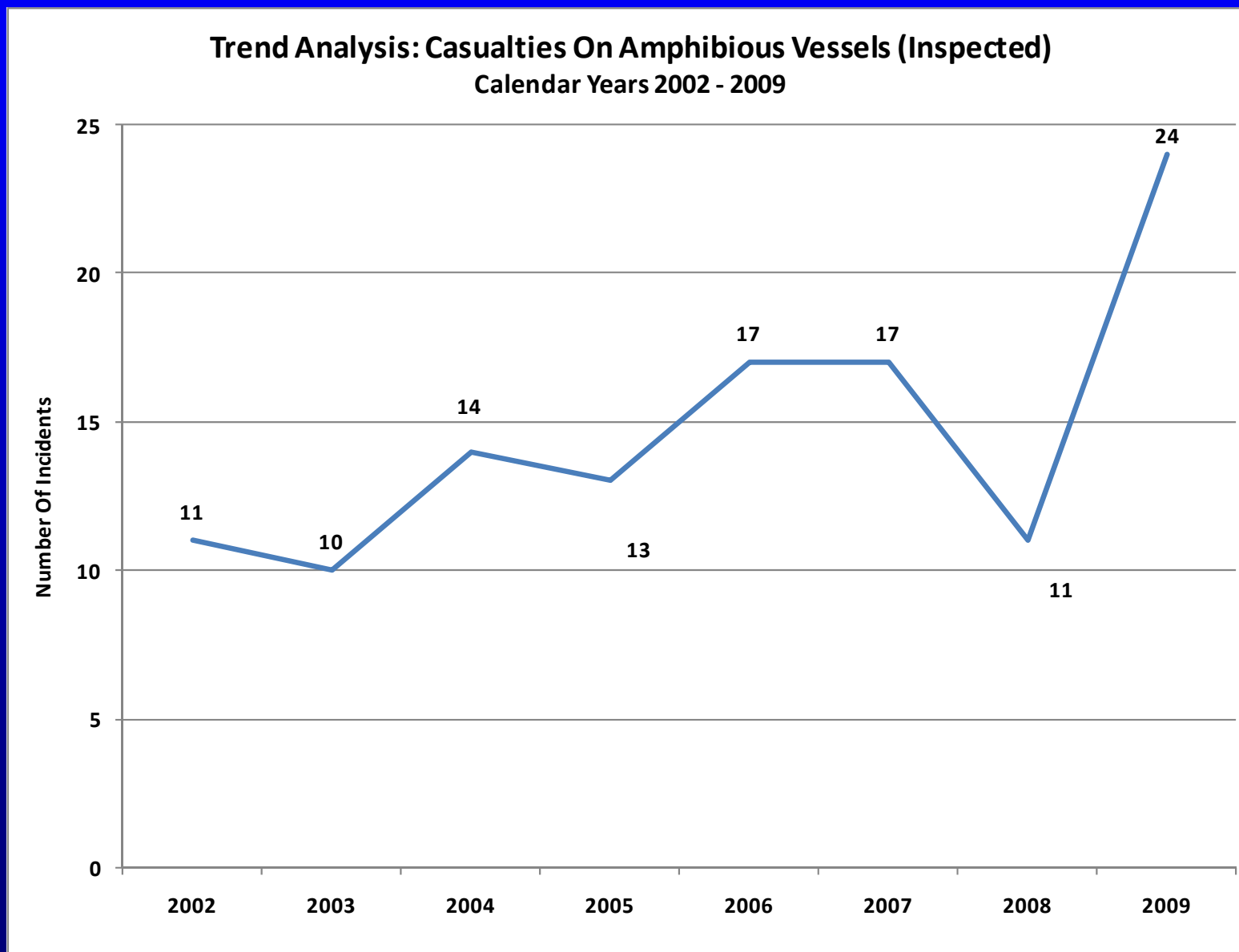
Casualties On All Amphibious Vessels 2002 - 2009	
Casualty Type	Total
Propulsion/Steering	87
Grounding	8
Allision	7
Collision	4
Fire	4
Material Failure	3
Flooding	2
Loss of Electrical Power	2
Grand Total	117

Casualties On WWII-Era Amphibious Vessels (DUKW's) 2002 - 2009	
Casualty Type	Incidents
Propulsion/Steering	53
Grounding	5
Fire	3
Allision	4
Collision	1
Loss of Electrical Power	1
Total	67

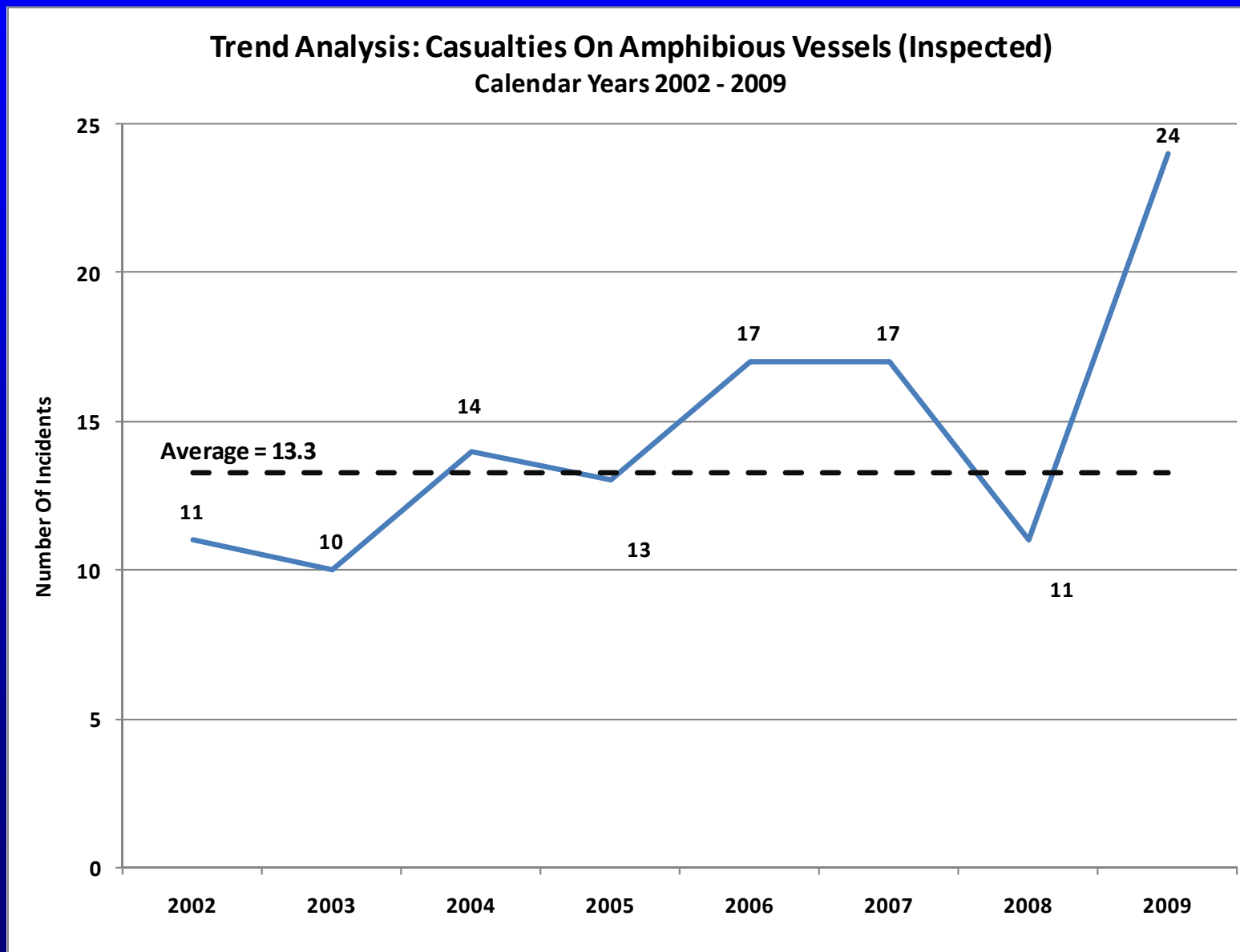
Vessel Casualty Rates

Casualty Rates, 2002 - 2009		
	Amphibious Vessels	Subchapter "T" Vessels*
Inspected Vessels	143	5450
Casualties ('02 - '09)	117	2148
Casualty Rate	0.8181	0.3942
Annual Casualty Rate	0.1022	0.049
Rate Per 100 Vessels	10.2	5
* Excluding Amphibious vessels.		

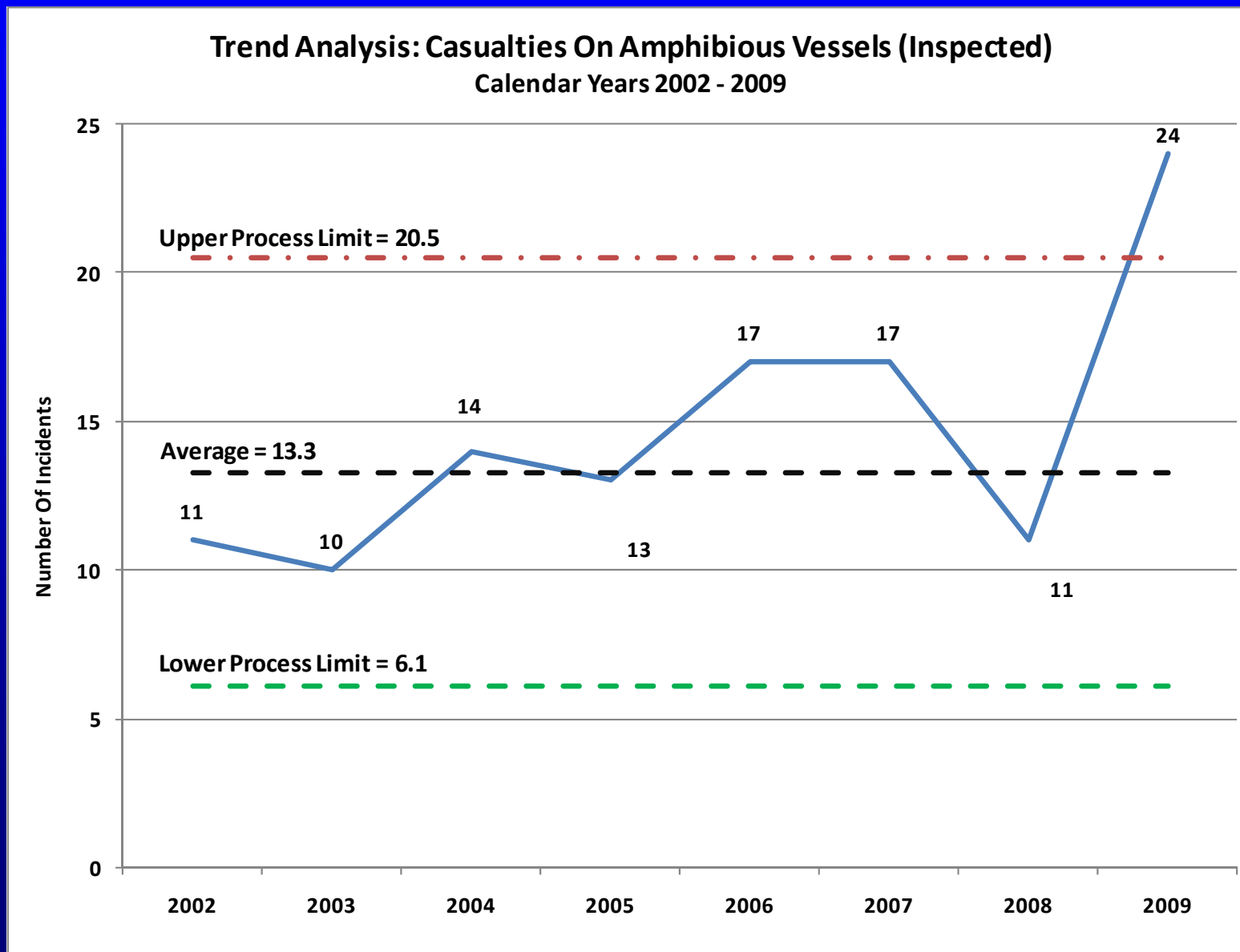
The Casualty Trend



The Casualty Trend



The Casualty Trend



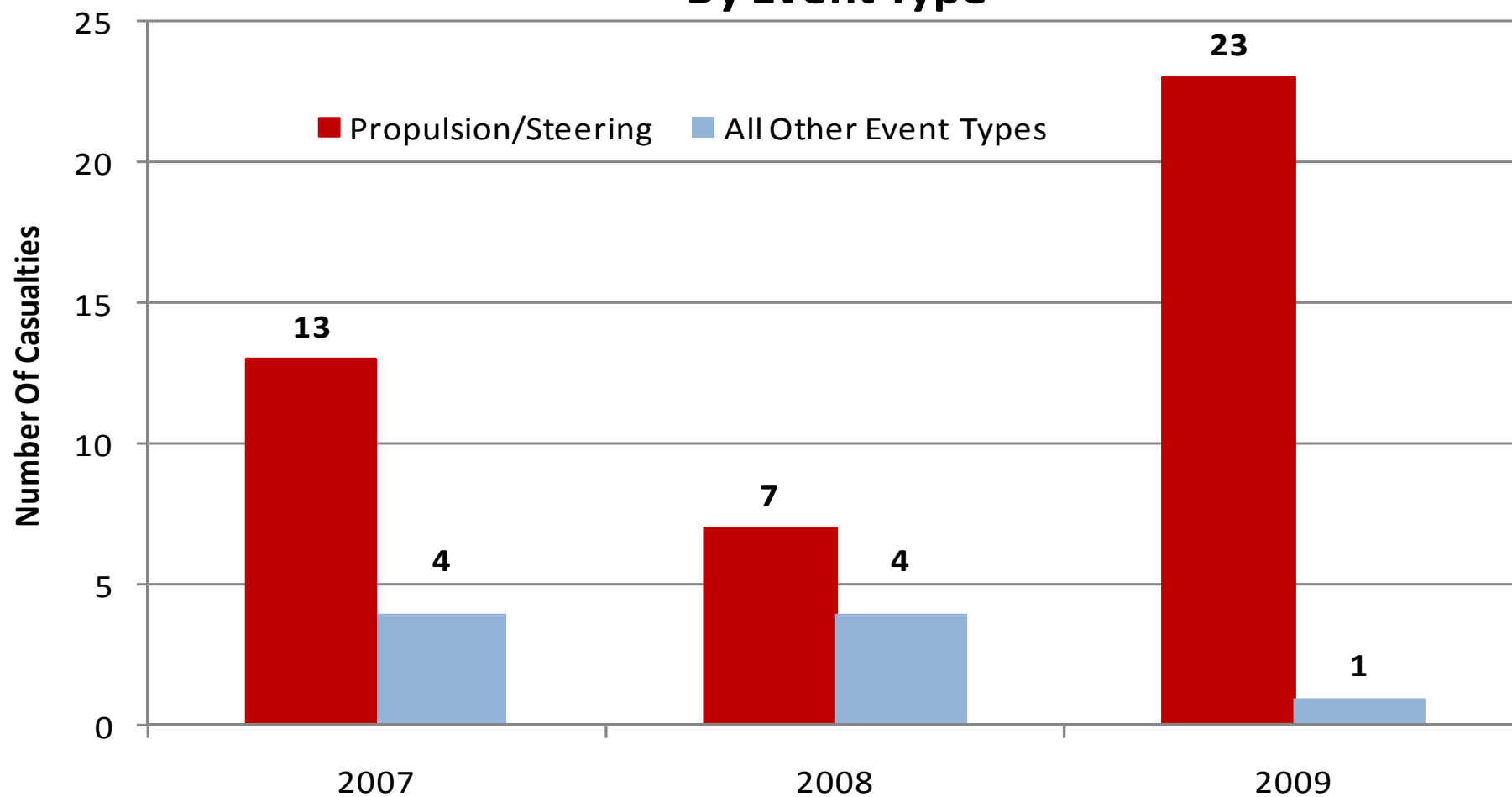
The Casualty Trend

What Changed?

- Propulsion/Steering Failures Increased.
- All other casualty types remained constant or decreased.

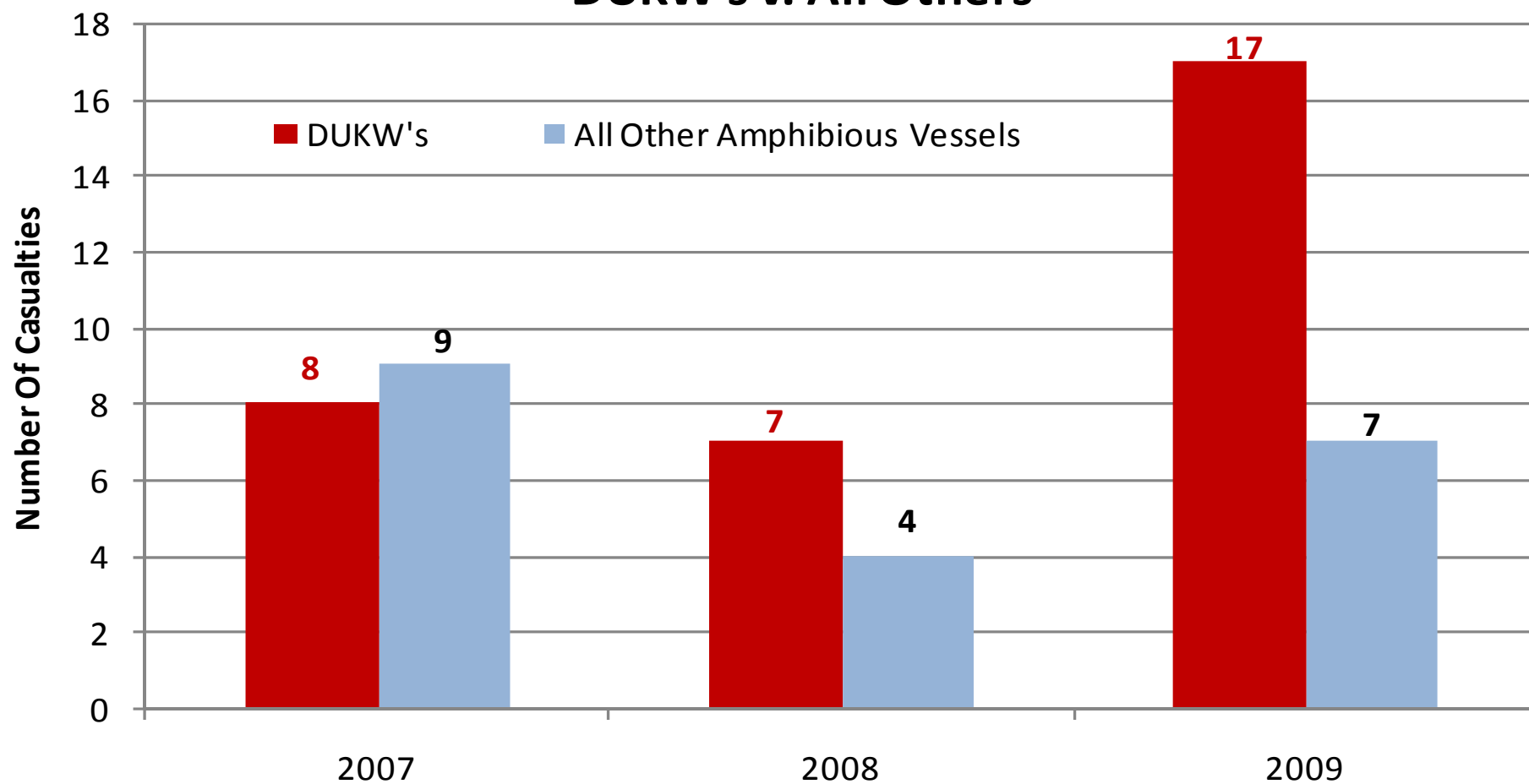
The Casualty Trend

**All Amphibious Vessel Casualties
By Event Type**



The Casualty Trend

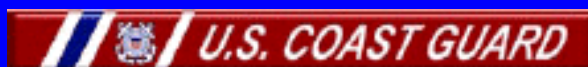
**Amphibious Vessel Casualties
DUKW's v. All Others**



The Casualty Trend, By Locale

Amphibious Vessel Casualties, By Year And CG Unit

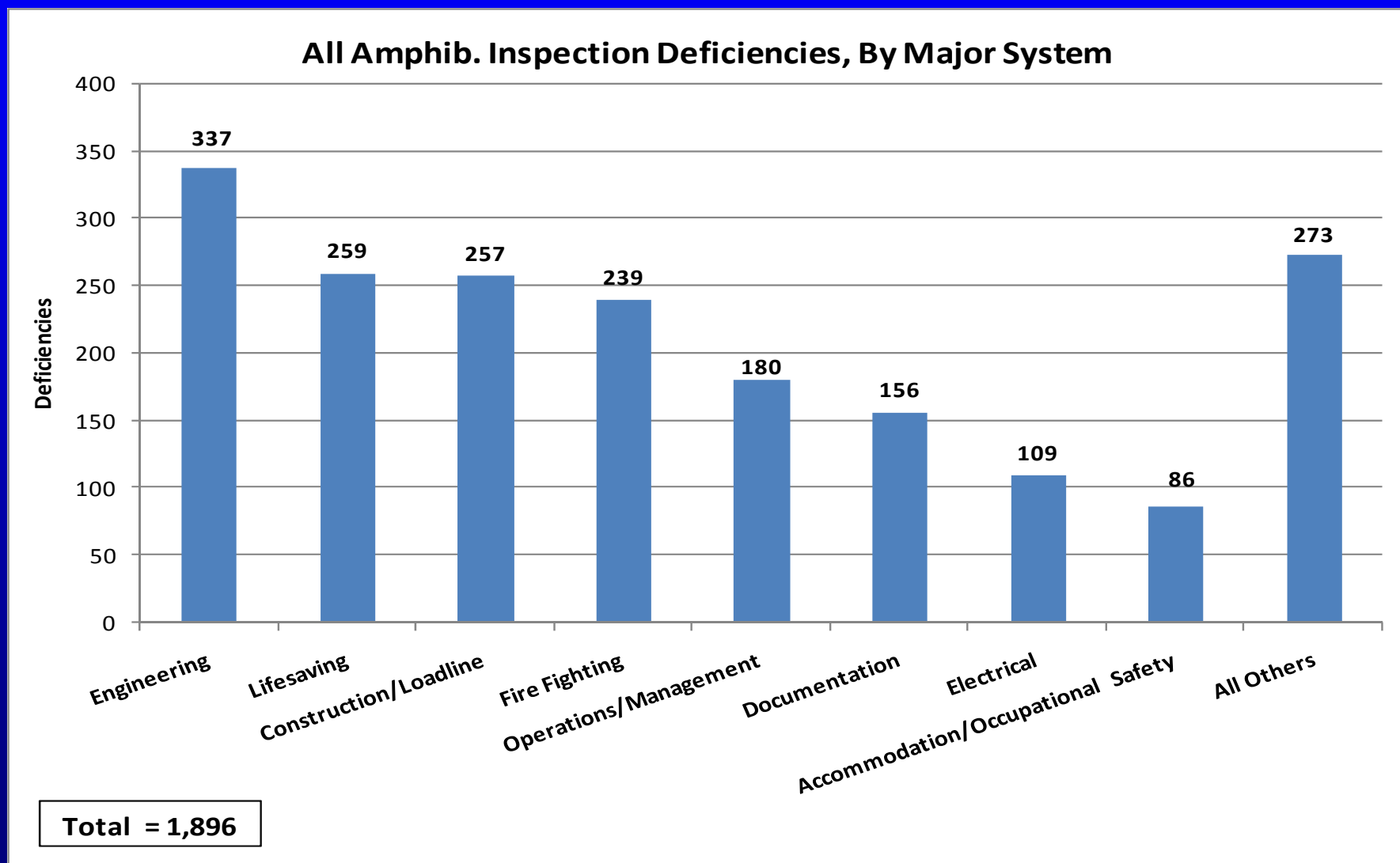
Dist	Unit	2002	2003	2004	2005	2006	2007	2008	2009	Total
1	Boston					1	1		1	3
1	Northern New England								1	1
1	NY City					1	2		3	6
5	Baltimore	1		6			1	2	3	13
5	Delaware Bay		2	2	6	3	2	4	9	28
7	Jacksonville				1					1
7	Miami			3	3	3	2			11
7	St. Petersburg	4				1				5
8	MSD Ft Smith			1		1	1			3
8	MSD Nashville							1	1	2
8	MSU Pittsburg								1	1
8	Upper Mississippi	4	1	1	1	1	4	1	3	16
11	San Diego	2	7		2	4	3	1	2	21
11	San Francisco					1		2		3
13	Portland, Or						1			1
17	MSD Ketchikan			1		1				2
	Total	11	10	14	13	17	17	11	24	117



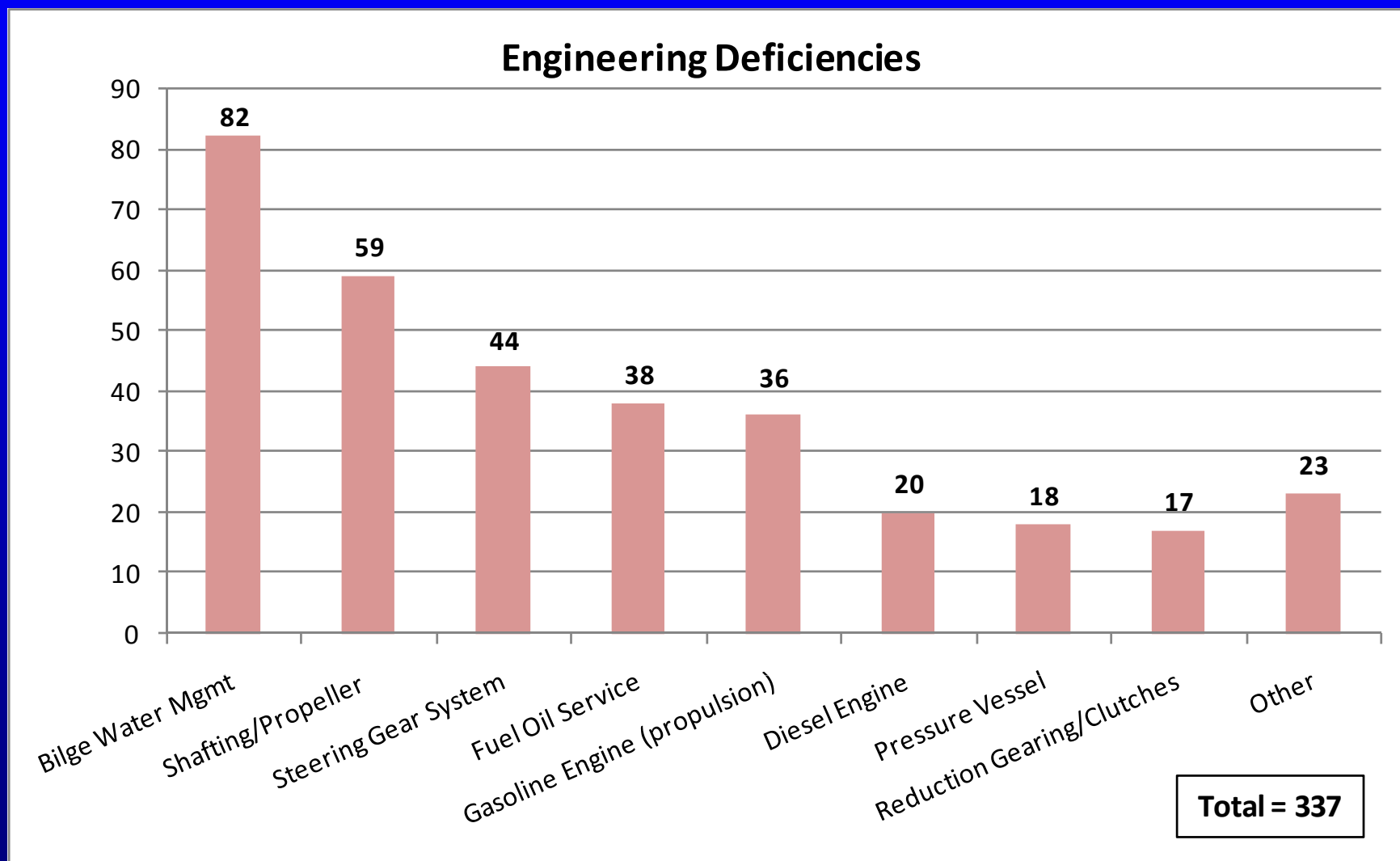
Equipment Failures on DUKW Vessels, By Year

	2002	2003	2004	2005	2006	2007	2008	2009		
	Steering									
Cable	2		1		1	1		3	8	13
Fitting/Linkage			1	1		1		2	5	
	Engine									
Ignition	1						1	1	3	9
Fuel Pump/Filter			1				1	1	3	
Radiator					1	1			2	
Alternator						1			1	
	Gear Boxes/Transmissions									
Hydraulics	2								2	26
Transmission/PTO	1				1	1	2	2	7	
Mounting bolts			1				1		2	
Shafts			2	1					3	
Engaging Mechanisms	1			3	2	1		5	12	
	Other									
Out of Fuel			1					2	3	5
Operator Error					1			1	2	
Annual Totals	7	0	7	5	6	6	5	17	53	

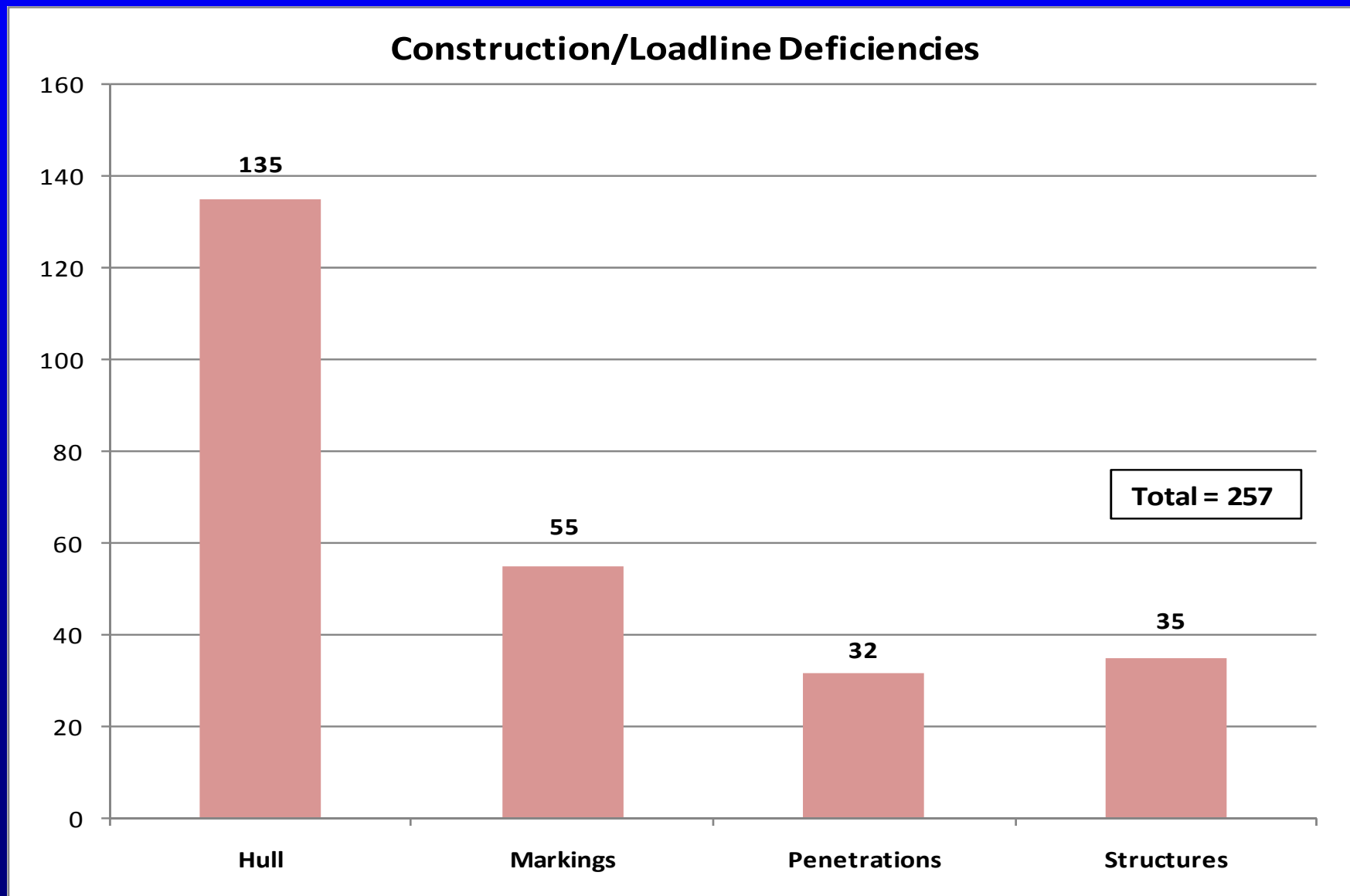
Inspection Deficiencies, 2005 - 2009



Inspection Deficiencies, 2005 - 2009



Inspection Deficiencies, 2005 - 2009



Questions/Discussion

- Data v. Information.





