

State of the Waterway 2015

Lone Star Harbor Safety Committee

Friday 06 February 2015



Steven W. Nerheim

Director, VTS Houston/Galveston

U.S. Department of
Homeland Security

**United States
Coast Guard**



Sector Houston-Galveston

U.S. Port Rankings - 2012

(Millions of short tons and % of change from 2011 ACOE data.)

1	Port of S Louisiana, LA	252.1	+2.3	15	Norfolk, VA	46.2	-2.4
2	Houston, TX	238.2	+0.2	16	Baltimore, MD	42.1	-6.2
3	New York, NY and NJ	132.0	-5.2	17	Pittsburg, PA	35.2	+3.9
4	New Orleans, LA	79.3	+2.8	18	St. Louis, MO and IL	35.0	-4.1
5	Beaumont, TX	78.5	+6.6	19	Duluth-Superior, MN and WI	34.7	-1.2
6	Long Beach, CA	77.4	-3.6	20	Savannah, GA	34.1	-3.7
7	Corpus Christi, TX	69.0	-2.2	21	Pascagoula, MS	33.8	-8.3
8	Los Angeles, CA	61.8	-4.9	22	Tampa, FL	31.7	+0.8
9	Baton Rouge, LA	60.0	+3.7	23	Port Arthur, TX	30.6	+1.1
10	Plaquemines, LA, Port of	58.3	+7.7	24	Newport News, VA	30.5	+21.1
11	Texas City, TX	56.7	-1.8	25	Philadelphia, PA	28.5	-6.8
12	Mobile, AL	54.9	-1.2	-----			
13	Lake Charles, LA	54.4	+0.2	31	Freeport, TX	22.1	-5.3
14	Huntington – Tristate	52.9	-9.6	47	Galveston, TX	11.6	-15.5

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U.S. Port Rankings – 2013

(Millions of short tons and % of change from 2012ACOE data.)

1	South Louisiana, LA, Port of	238.6	-5.3%	15	Huntington - Tristate	46.8	-11.5%
2	Houston, TX	229.2	-3.8%	16	Baltimore, MD	36.6	-13.1%
3	New York, NY and NJ	123.3	-6.6%	17	Duluth-Superior, MN and WI	36.5	5.2%
4	Beaumont, TX	94.4	20.2%	18	Port Arthur, TX	34.7	13.3%
5	Long Beach, CA	84.5	9.2%	19	St. Louis, MO and IL	33.6	-4.0%
6	New Orleans, LA	77.2	-2.8%	20	Pittsburgh, PA	32.7	-6.9%
7	Corpus Christi, TX	76.2	10.4%	21	Pascagoula, MS	32.4	-4.0%
8	Baton Rouge, LA	63.9	6.5%	22	Tampa, FL	32.4	2.4%
9	Los Angeles, CA	57.9	-6.3%	23	Savannah, GA	32.0	-6.3%
10	Plaquemines, LA, Port of	56.9	-2.4%	24	Newport News, VA	29.8	-2.4%
11	Lake Charles, LA	56.6	4.0%	25	Valdez, AK	28.2	1.0%
12	Mobile, AL	54.0	-1.6%	-----			
13	Texas City, TX	49.7	-12.4%	32	Freeport, TX	19.7	-10.7%
14	Norfolk Harbor, VA	48.9	5.8%	49	Galveston, TX	11.4	-1.8%

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VTS Movements - 2014

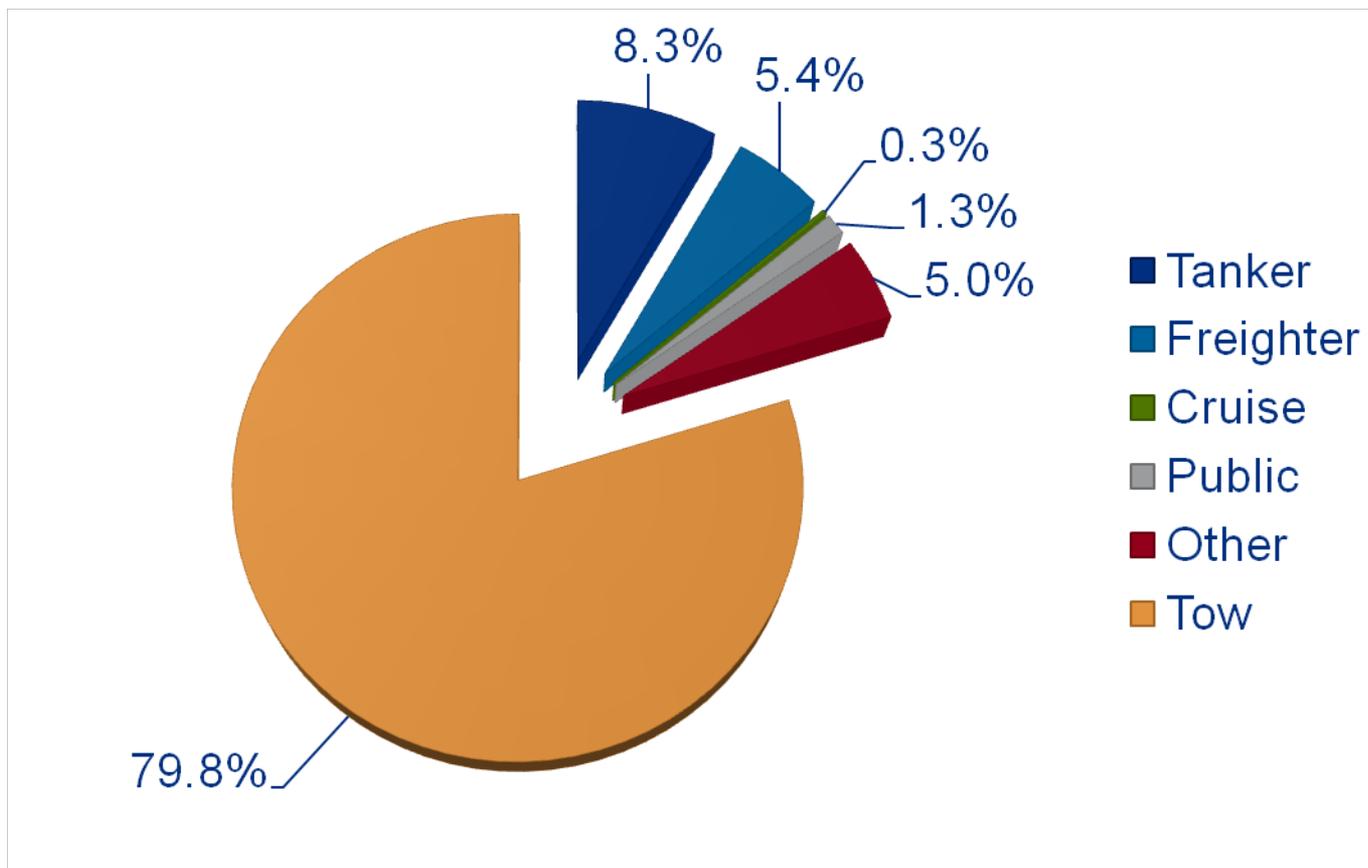
Tug/Tow	130,744	3.85%
Ships	22,866	1.72%
Other	8,169	-11.09%
Public	2,087	-6.79%
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Total Users	163,866	2.50%
Ferries	109,204	
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Total	273,070	

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Transit Summary - 2014



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Typical Day in the VTSA - 2014

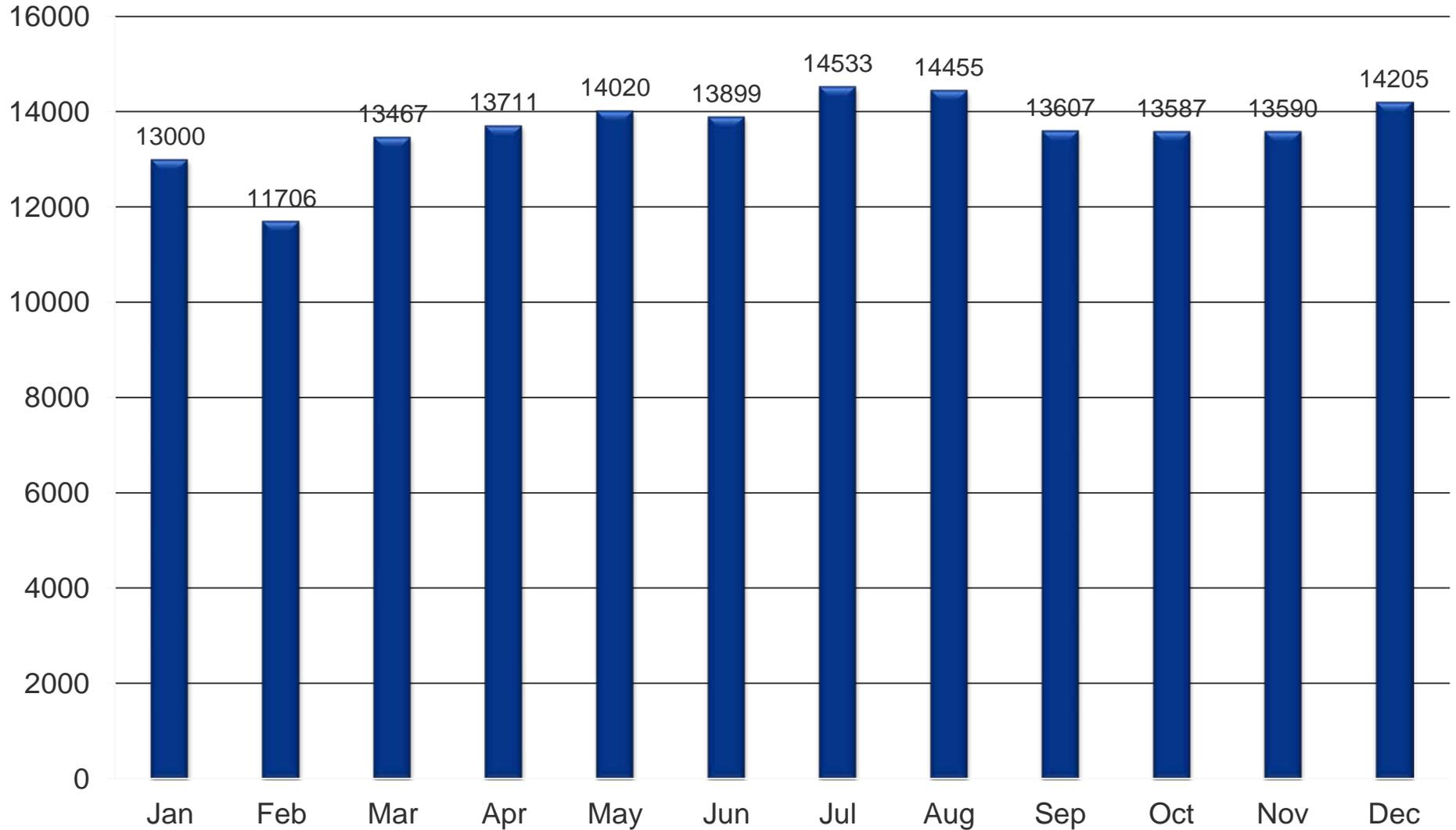
Average		High
37	Tanker Transits	54
24	Freighter Transits	45
1	Cruise Ship Transits	7
358	Tow Transits	464
6	Public Vessel Transits	34
299	Ferry Transits	504
22	OSV / Other Transits	52
74	Ships in Port	

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Monthly Transits - 2014

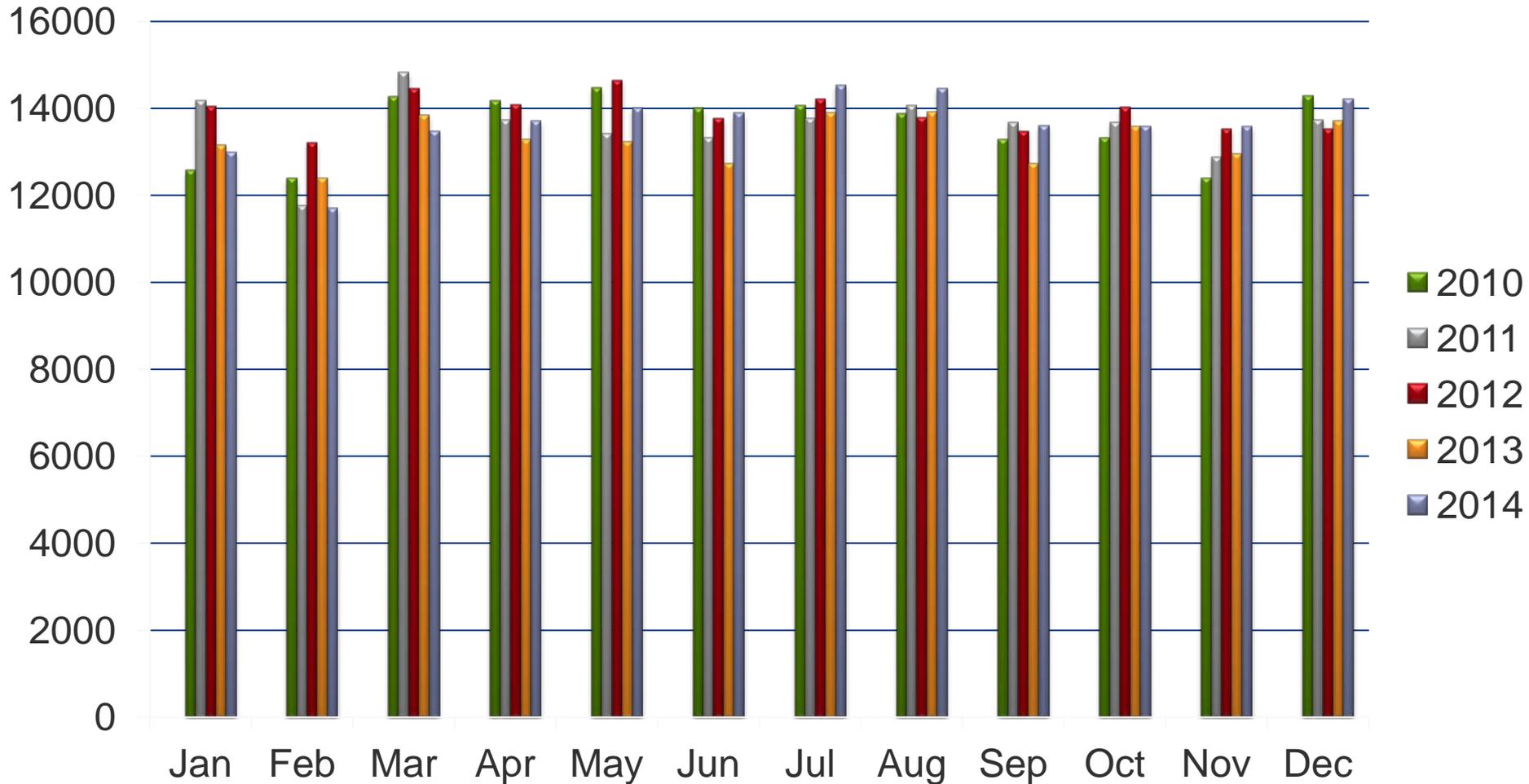


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Monthly Comparison: 2010 - 2014



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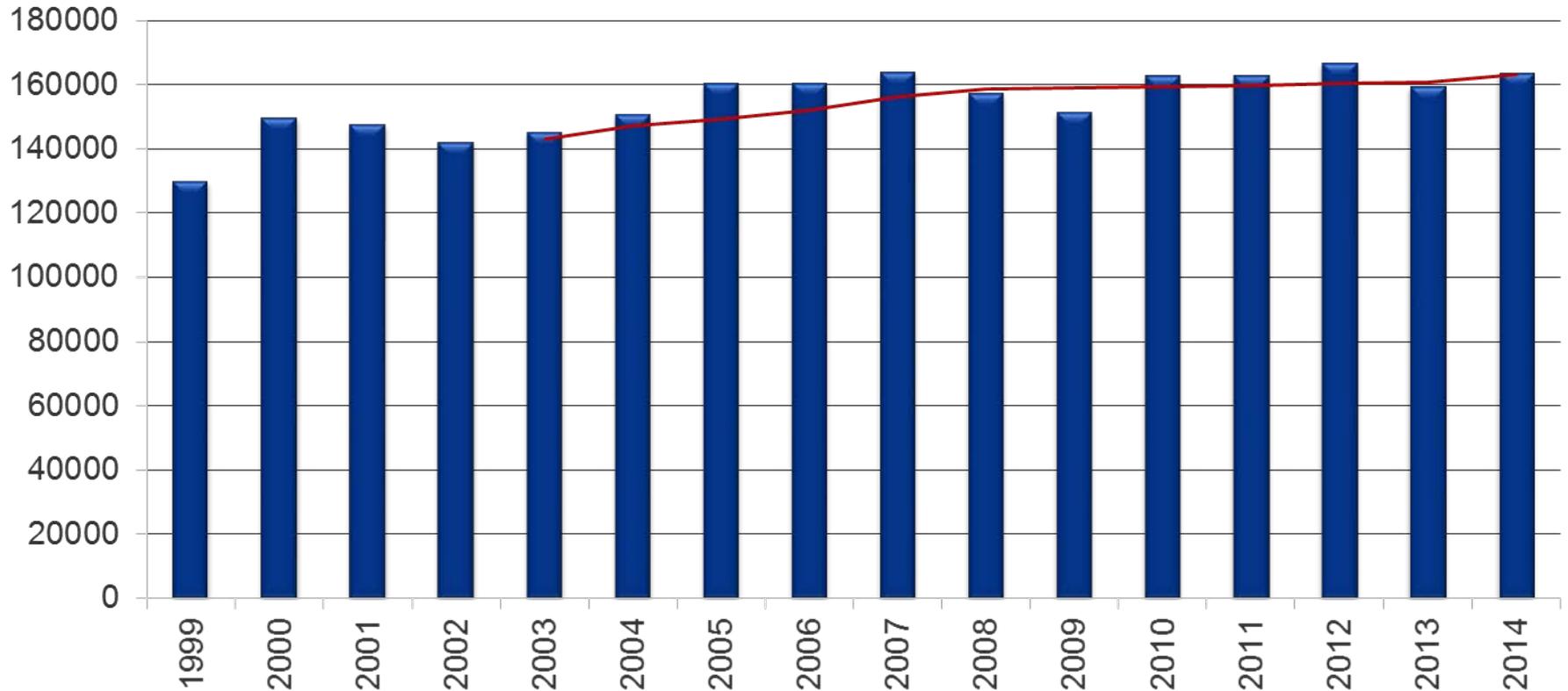
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1999 – 2014 Transits

10.93% increase over 15 years

Total Transits per Year



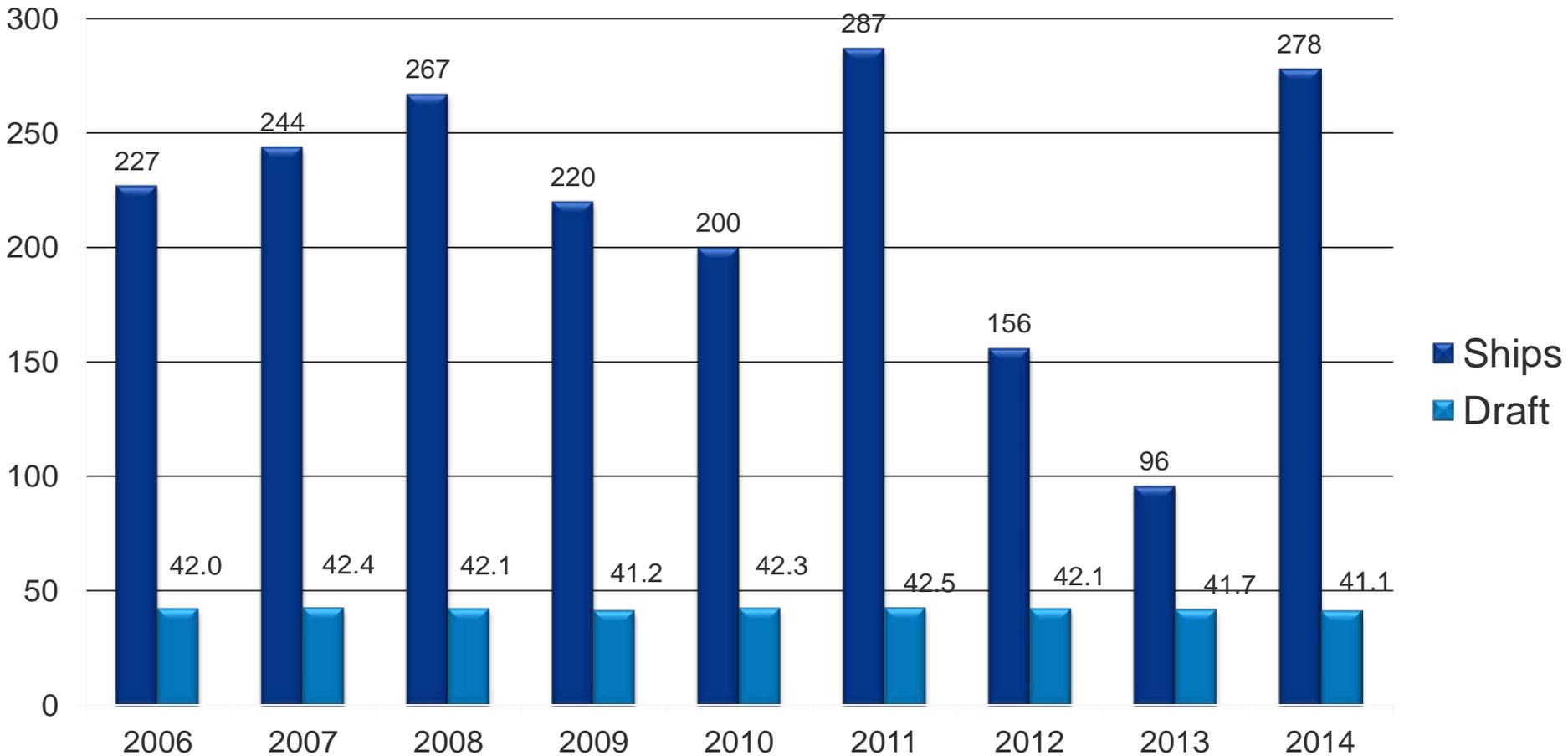
Trend line represents 5 year moving average.

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Deep Draft Tethered Movements



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Incident Summary - 2014

253 Incidents (264 for 2013) up -4.16%

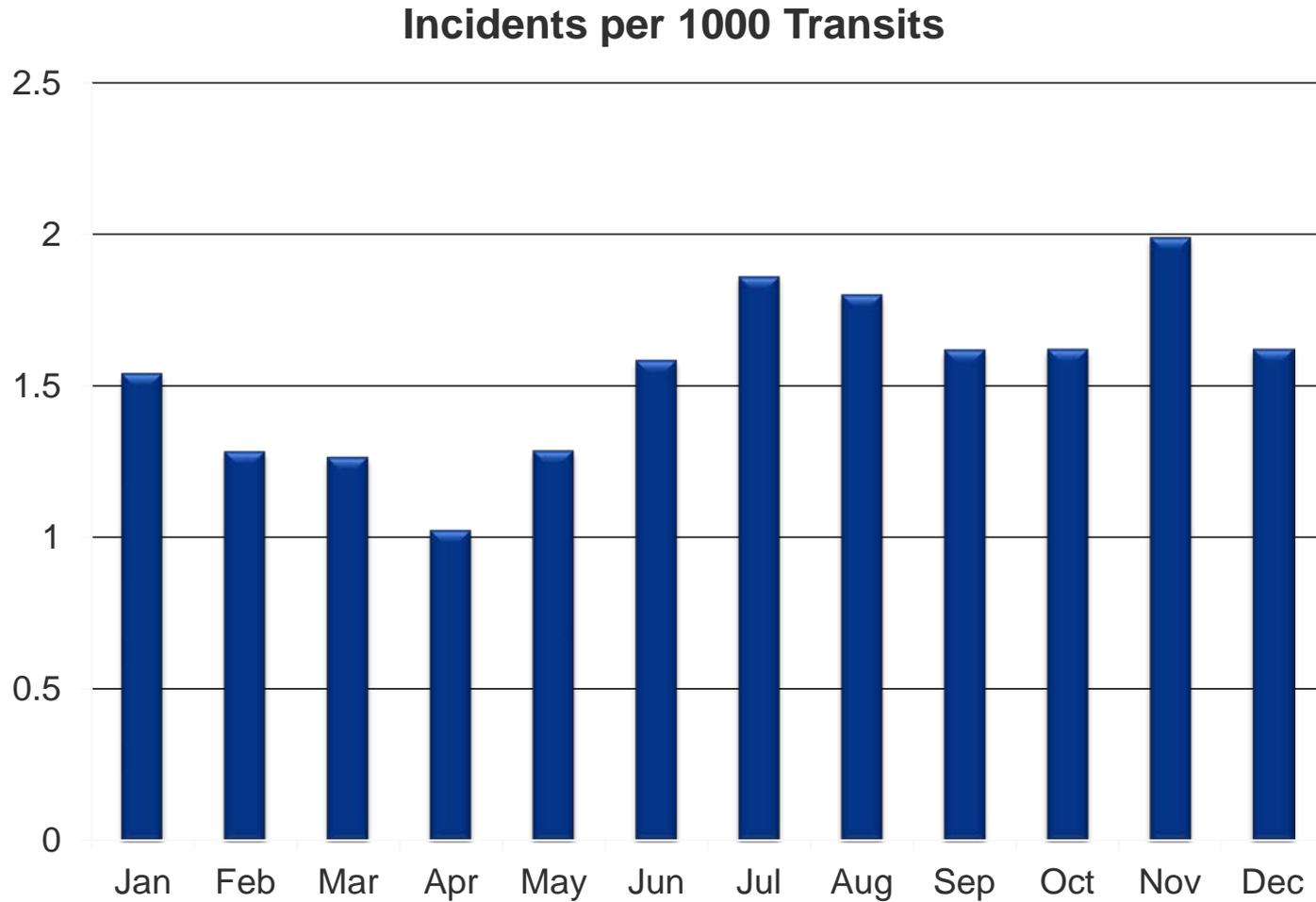
- 179 Vessel Casualties -16.35%
 - 30 Groundings 0.00%
 - 7 Collisions +16.67%
 - 5 Allisions +150.0%
 - 32 Other +150.0%
- Broken Face wires / coupling, Person in Water, Barges adrift, Pollution / Spill, Ammonia Release

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Incident to Transits Ratio - 2014



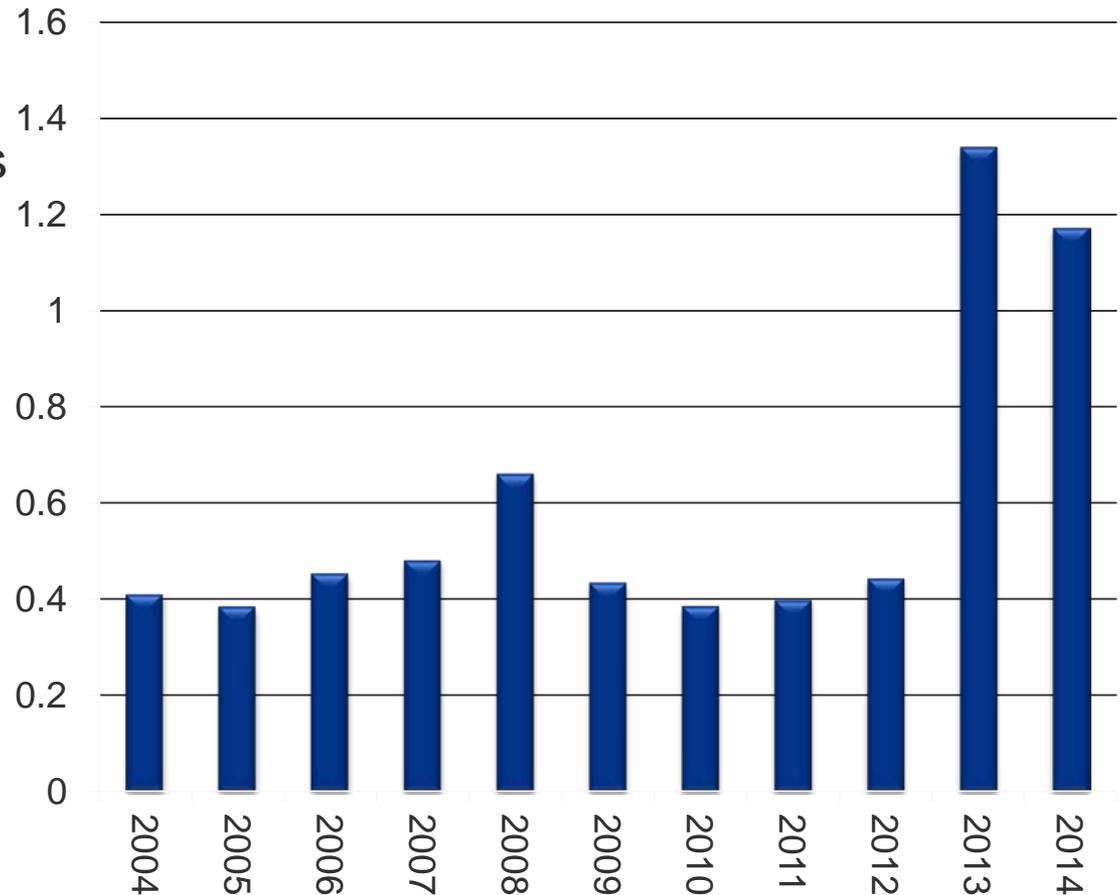
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Vessel Casualties - Year to Year

Vessel Casualties per 1000 Transits



179 Total Vessel Casualties

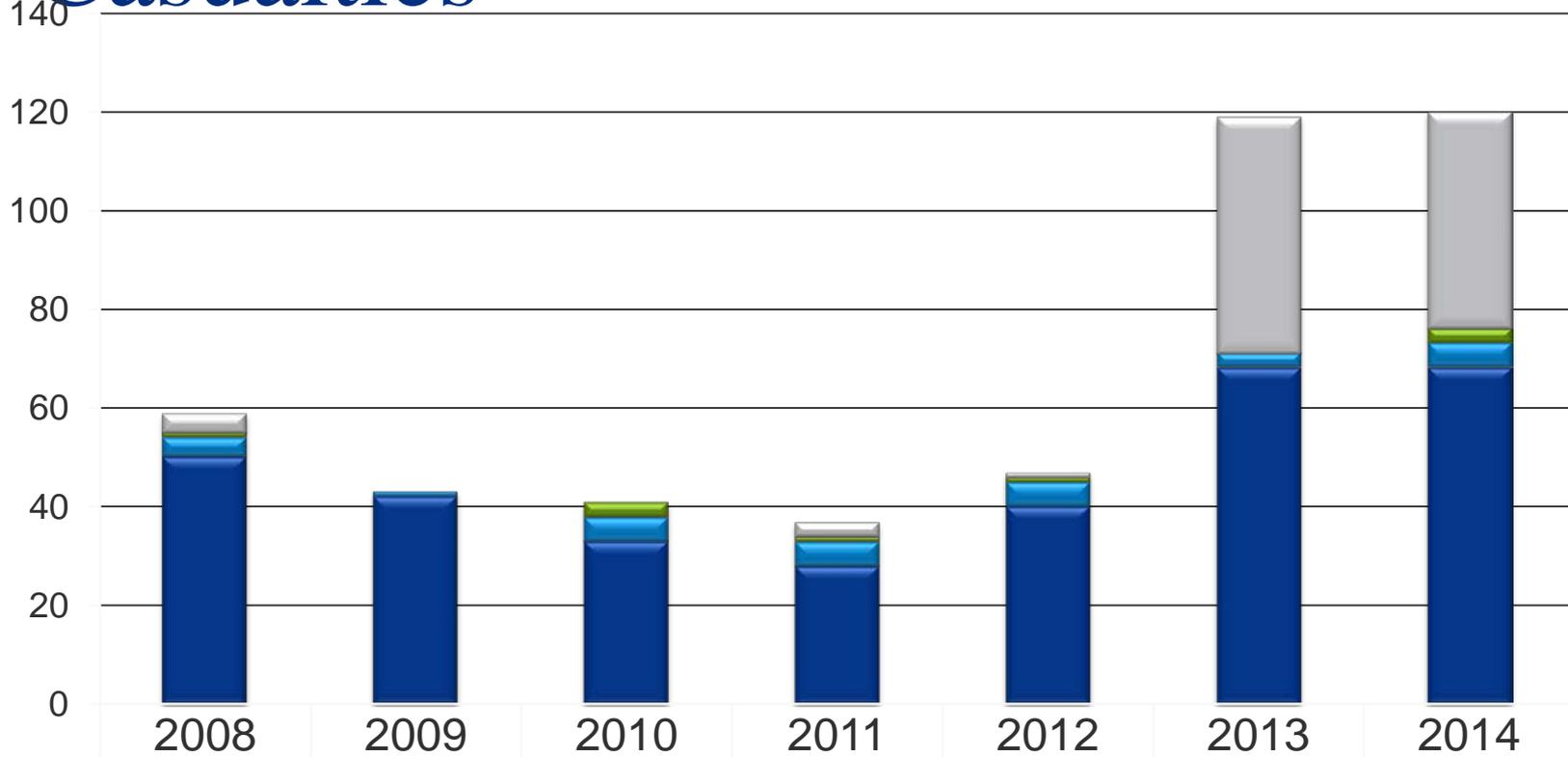
- 120 Ship
- 52 Tow
- 7 Other

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Ship Casualties



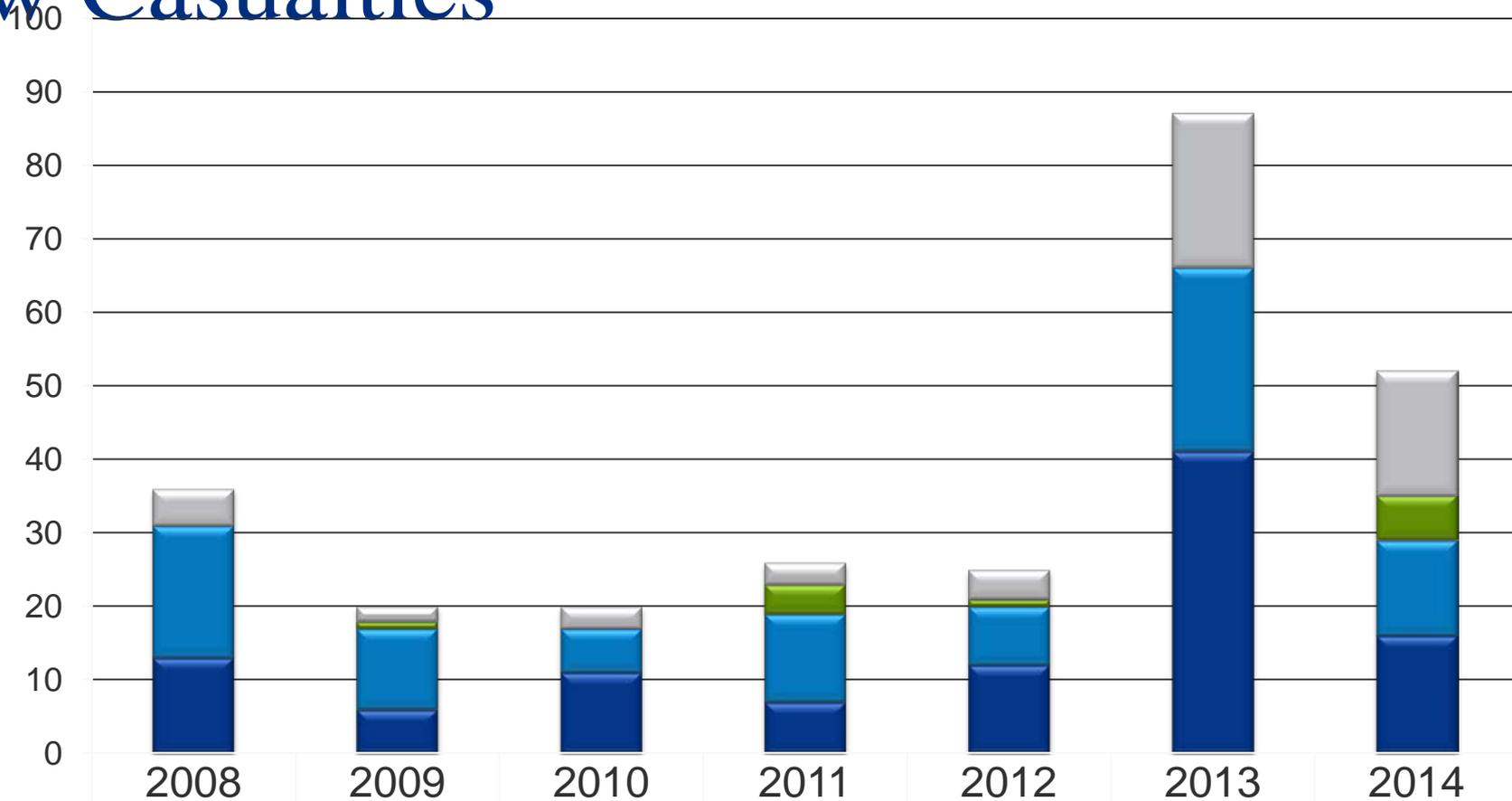
Other	4	0	0	3	1	48	44
Generator	1	0	3	1	1	0	3
Steer	4	1	5	5	5	3	5
Propulsion	50	42	33	28	40	68	68

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Tow Casualties



Other	5	2	3	3	4	21	17
Generator	0	1	0	4	1	0	6
Steer	18	11	6	12	8	25	13
Propulsion	13	6	11	7	12	41	16

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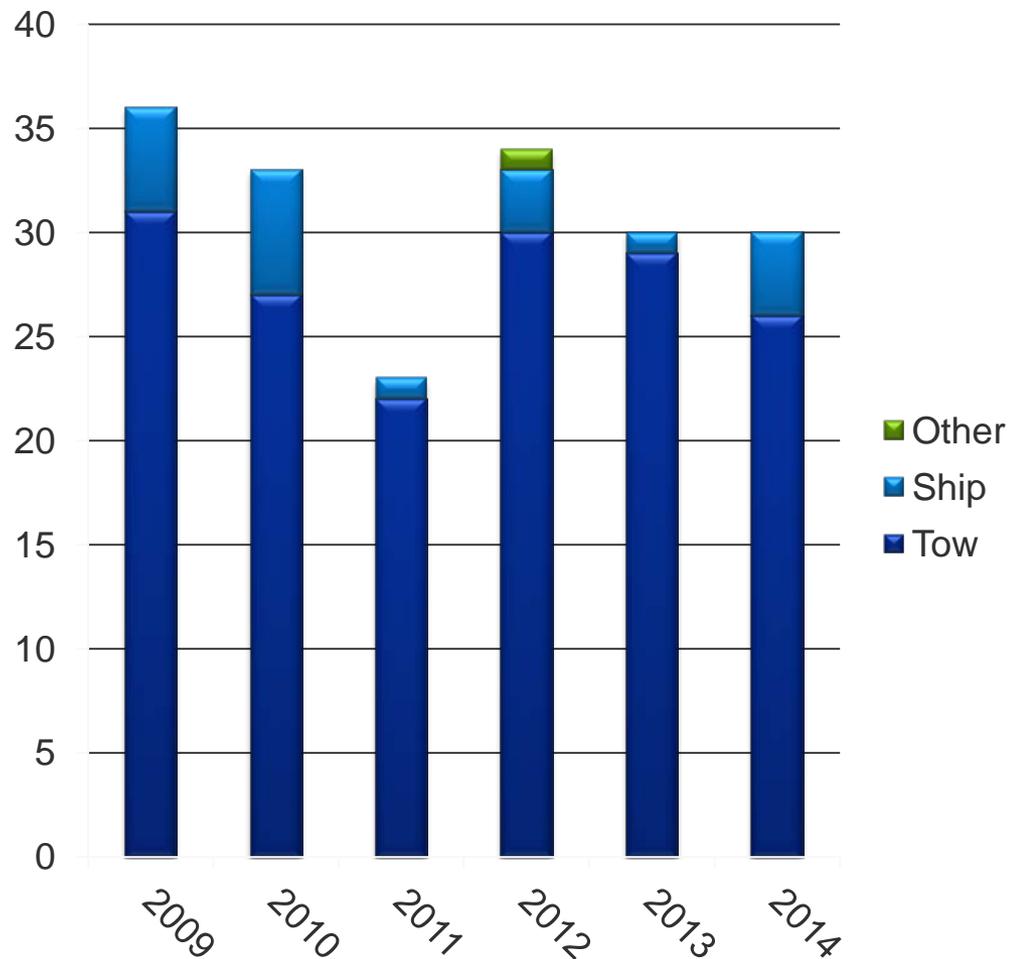
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Groundings – Year to Year

Reported causal factors:

- Current
- Wind
- Operator Error
- Surge by another vessel
- Weather
- Tide
- Unknown



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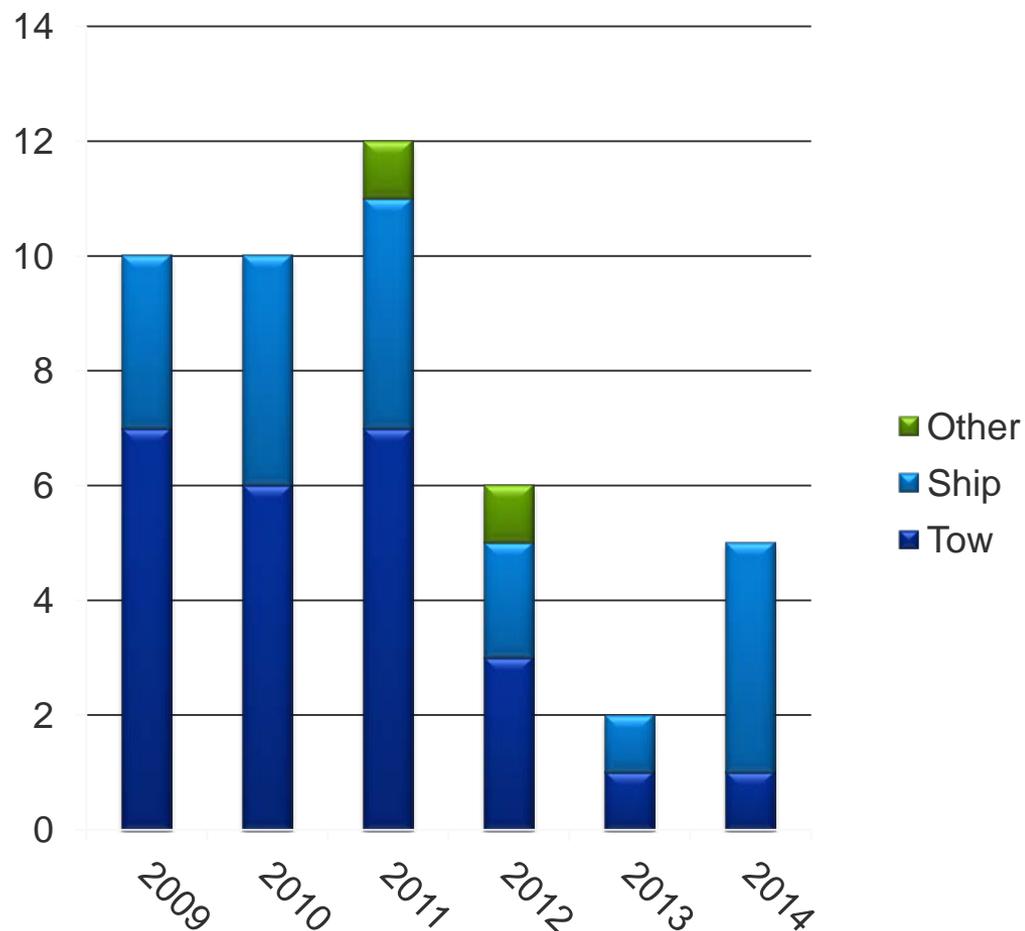
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Allisions

5 Allisions

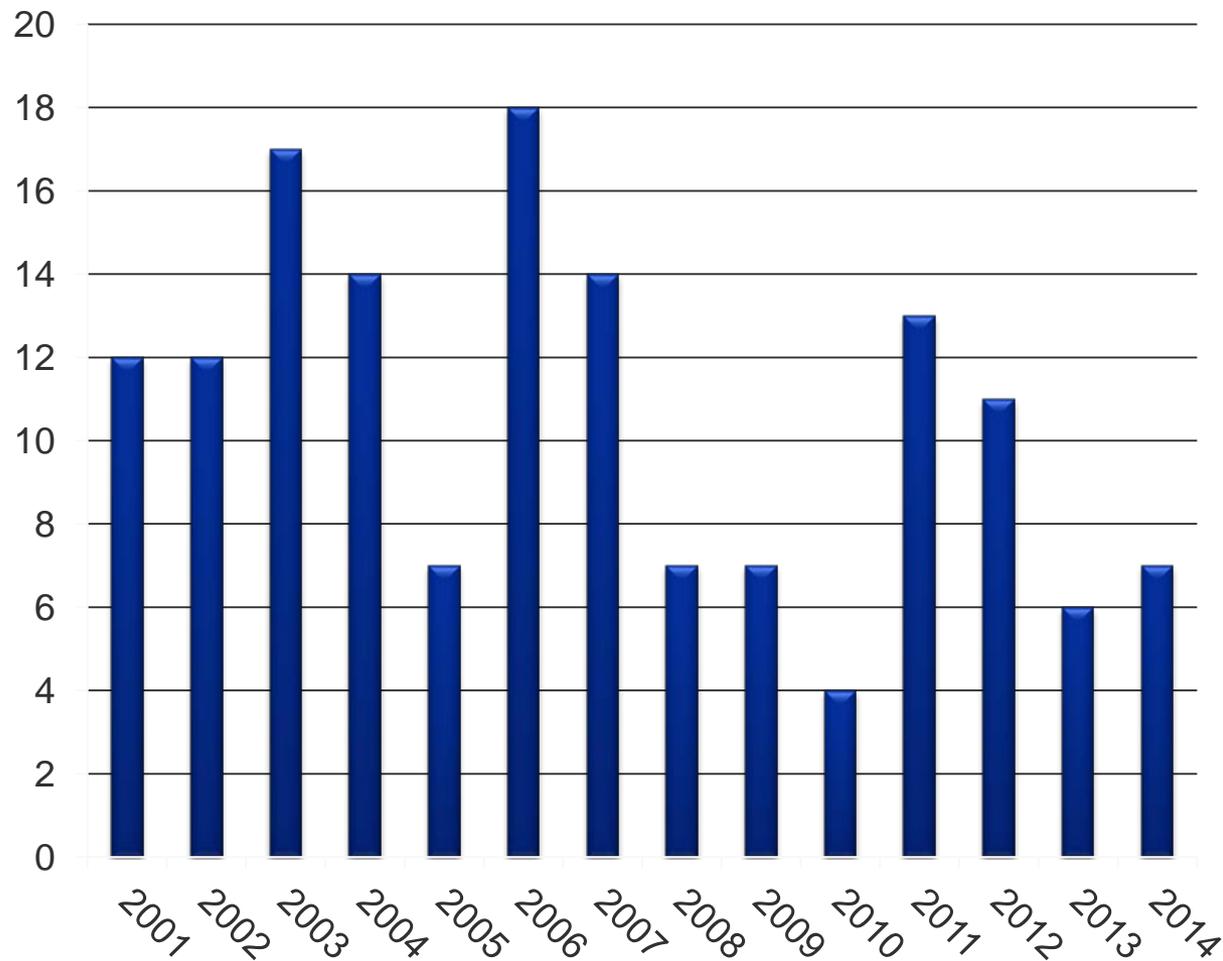
- 1 involving a tow
- 4 involving a ship



Collisions

7 Collisions

- 2 ship/tow
- 4 tow/tow
- 1 tow/dredge

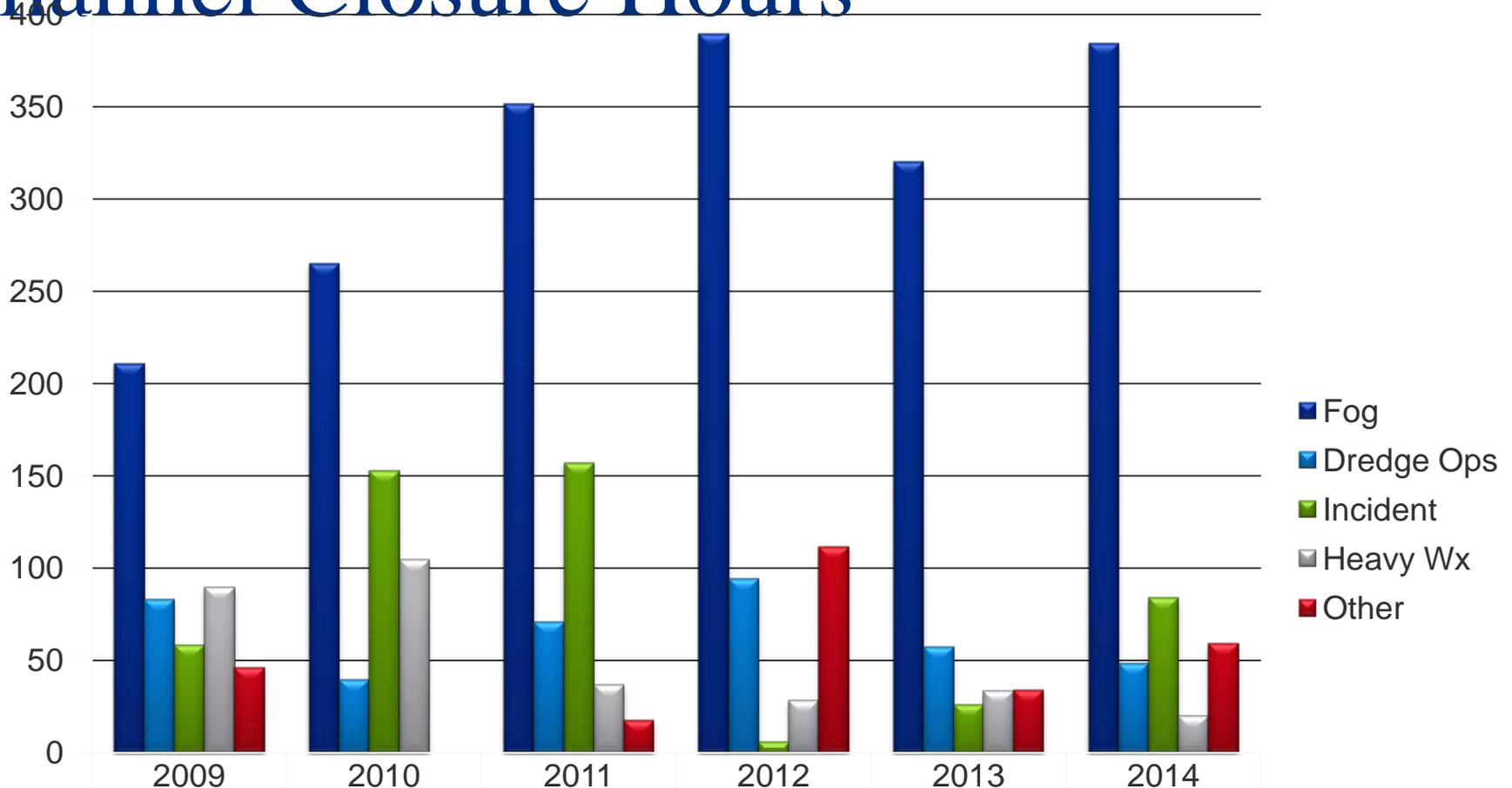


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Channel Closure Hours



Fog	210.65	265	351.5	389.55	319.96	384.1
Dredge Ops	83	39.5	70.5	94.15	57.36	48.33
Incident	58.4	152.5	157.2	5.5	26	83.88
Heavy Wx	89.5	104.5	36.8	28.1	33.1	20
Other	46	0	17.5	111.35	33.83	59.26

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Hotspots

- Grounding
- Allision
- Collision



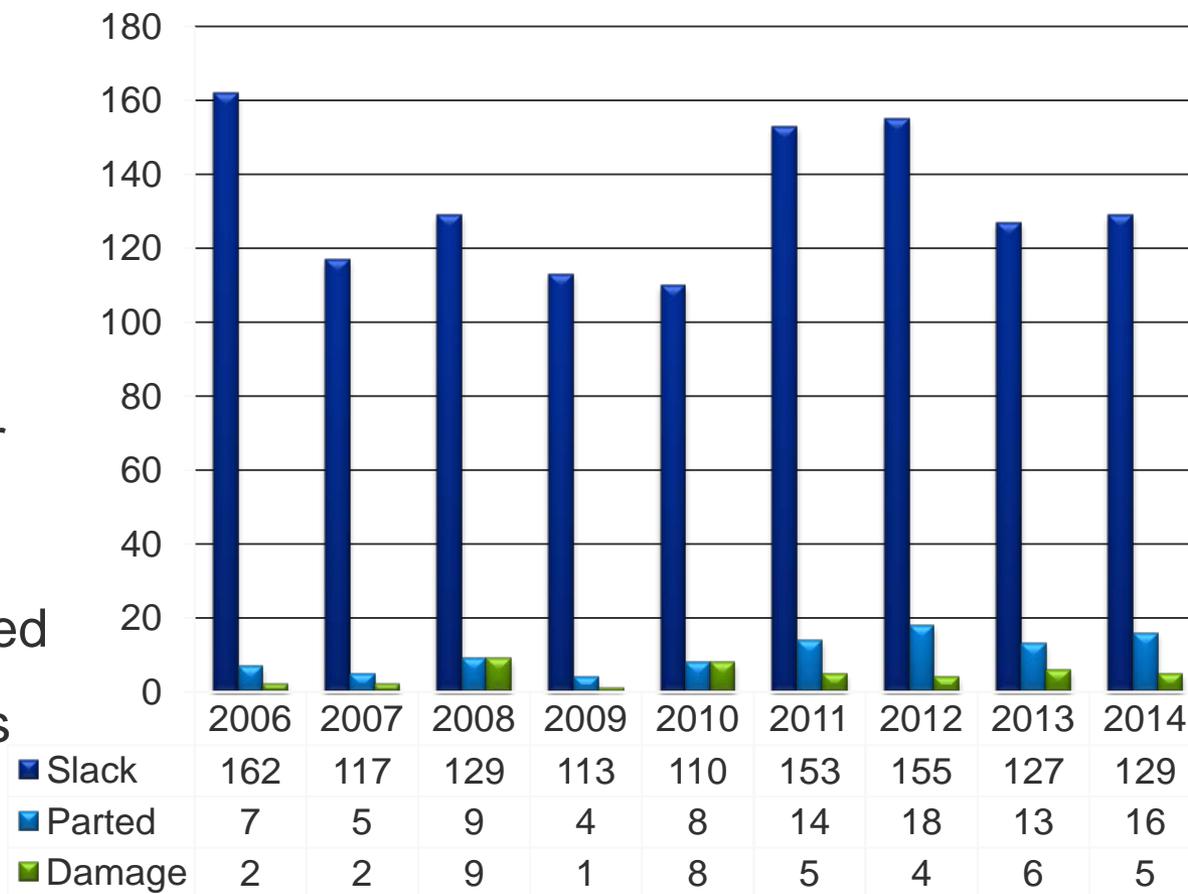
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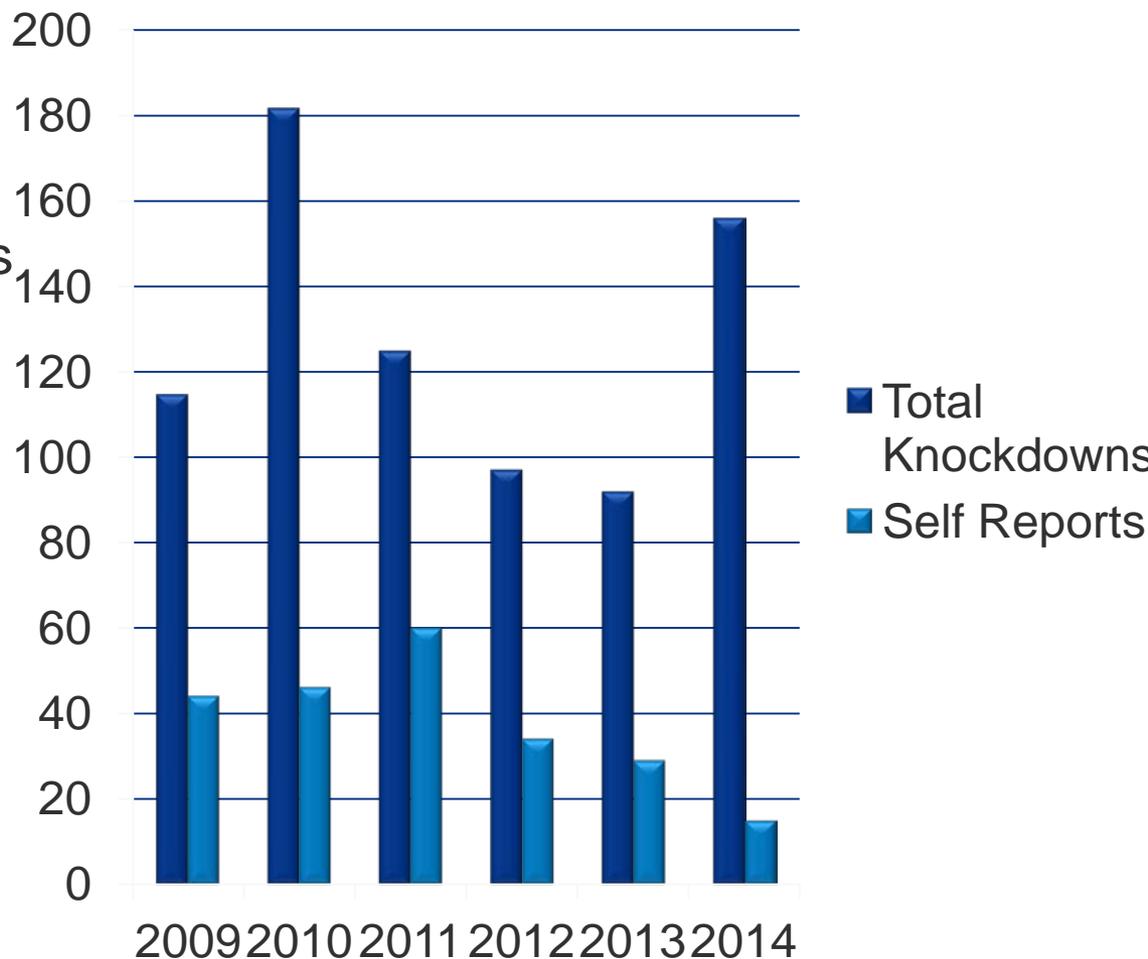
Reports of Unsafe Moorings (Slack Lines)

- Increase of 2.74%
- Average speed of vessel reported causing damage or parted lines 5.8 kts with no vessel speed greater than 6.8 kts

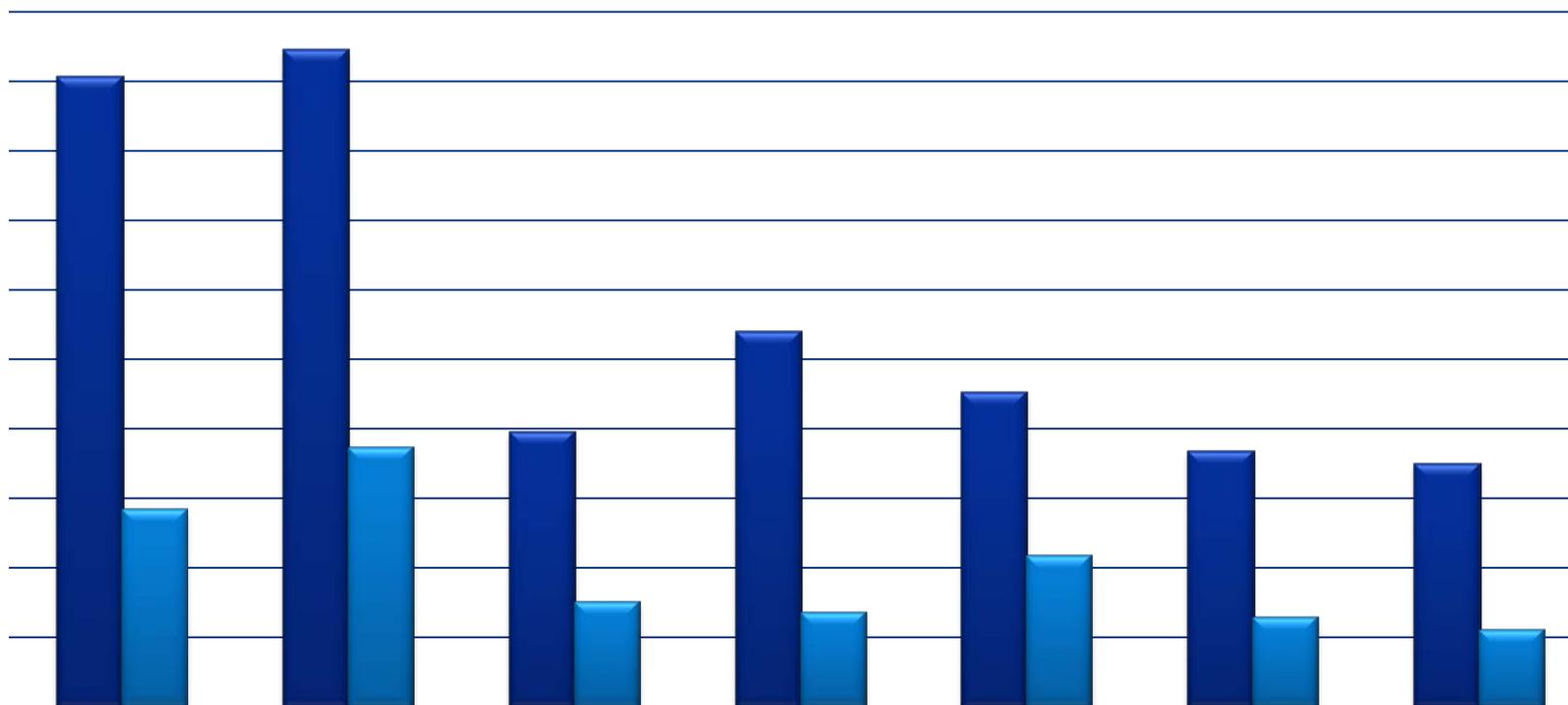


ATON Knockdowns - 2014

- 92 Total knockdowns
- 29 Self-reported knockdowns (31.5% of total knockdowns)
- Leading Causes:
 - 50% - Wind/Current
 - 40% - Traffic Density
 - 20% - Operator Error



ATON Cost / Recovered



	2007	2008	2009	2010	2011	2012	2013
■ Cost	\$453,537	\$473,256	\$197,685	\$269,906	\$226,125	\$184,300	\$174,800
■ Recovered	\$142,415	\$186,235	\$75,636	\$68,218	\$108,540	\$64,000	\$55,100

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Industry Involvement

- NavOps Committee
 - Fleeting
 - Vessel Casualty
 - Slack Line
 - COC Boarding Issues
- Waterways Safety
 - Lay Berth
 - Anchorage Drafts
 - Additional Anchorages
- Dredging Coordination
- Education and Outreach

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On the Horizon

- Evolving traffic (More vessels / larger vessels / different vessels)
- VTSA Re-design
- Changing workforce demographics

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Contacts

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