

**U.S. Department of Transportation  
Maritime Administration**



# **Vessel Calls Snapshot, 2010**



May 2011

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Policy and Plans

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Transportation



# U.S. Department of Transportation



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## Preface

The snapshot contains data on calls by oceangoing vessels of 10,000 deadweight (DWT) or greater at U.S. ports. Vessel capacities are expressed in terms of deadweight tons for all vessel types, twenty-foot equivalent units (TEU's) for containerships and cubic meters (CM) for gas carriers.





## Notes and Sources

### Notes

**Average capacity calculation:** A weighted average; sum of vessel calls weighted by vessel capacity divided by calls. For example, if 3 vessels made a total of 25 calls at U.S. ports. The total capacity calling was 750,000 DWT, the average capacity per call is  $750,000/25$  or 30,000 DWT; and similarly for TEU and CM capacities.

	Calls	DWT	Calls x DWT
Vessel A	10	25,000	250,000
Vessel B	5	20,000	100,000
Vessel C	10	40,000	400,000
Total	25		750,000

**Average age calculation:** The calculation for average age is the same as above substituting age of vessel in years for capacities.

### **Capacity (Size)**

Throughout the report, average vessel size is the sum of vessel calls weighted by vessel deadweight (DWT) divided by calls (See example below.). DWT is the total weight (metric tons) of cargo, fuel, fresh water, stores and crew which a ship can carry when immersed to its load line. For containerships and gas carriers, capacities are also expressed in twenty-foot equivalent units, (TEU) and cubic meters (CM), respectively. A TEU is a nominal unit of measure equivalent to a 20' x 8' x 8' shipping container.

### **Coastal Regions**

**North Atlantic (N. Atl.)** – All ports from Eastport, ME to Baltimore MD.

**South Atlantic (S. Atl.)** – All ports from Alexandria, VA to Miami, FL.

## Notes and Sources

### **Puerto Rico (PR)**

**U.S. Gulf (USG)** – All ports from Key West, FL to Brownsville, TX.

**Pacific Northwest (PNW)** – All U.S. ports from Barrow, AK to Coos Bay, OR.

**Pacific Southwest (PSW)** – All ports from Crockett, CA to San Diego, CA and all Hawaiian ports.

### **Jones Act Fleet**

Vessels built in the U.S. and registered under U.S.-flag; or vessels reconstructed in the U.S. and registered under U.S.-flag; or foreign-built vessels forfeited for violation of U.S. law and registered under U.S.-flag. These vessels have unrestricted coastwise trading privileges.

**Percent change calculation:**  $(\text{value}_{2010} - \text{value}_{2005}) / \text{value}_{2005} \times 100$ .

### **Vessel Types**

The vessel categories included in this report are:

**Tanker** – Petroleum tankers and chemical tankers.

**Product:** 10,000–69,999 DWT.

**Crude:**  $\geq 70,000$  DWT.

**Container** – Fully-cellular containerships, and refrigerated container carriers.

**Dry Bulk Carrier** – Bulk vessels, bulk containerships, cement carriers, ore carriers, and wood-chip carriers.

**Ro-Ro** – Roll-on/roll-off vessels, ro-ro containerships, and vehicle carriers.

## Notes and Sources

**Gas Carrier** – LNG carriers, LNG/LPG carriers, and LPG carriers.

**Combination Carrier (Combo)** – Ore/bulk/oil carriers and bulk/oil carriers.

**General Cargo** – General cargo carriers, partial containerships, refrigerated ships, barge carriers, and livestock carriers.

### Sources

Lloyd's Marine Intelligence Unit, Vessel Movements Data Files, 2005-2010, London: Lloyd's Marine Intelligence Unit, 2005-2010. This source contains data for vessel port calls, ports and active fleets.

Lloyd's Marine Intelligence Unit, Seasearcher, London: Lloyd's Marine Intelligence Unit, 2011. This source contains data for vessel port calls, ports and active fleets.

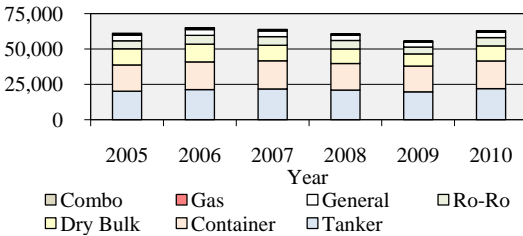
Clarkson Research Studies, Clarkson's Vessel Registers, London: Clarkson Research Studies, January 2011. This source contains data on the characteristics of the world merchant fleets.



# Vessel Calls

In 2010, 7,579 oceangoing vessels made 62,747 calls at U.S. ports. Vessel calls were up 3 percent from five years earlier, but 13 percent from the year before. The recovery was spread over all of the major vessel types. Of the 2010 calls, 35 percent were by tankers, 31 percent were by containerships, 17 percent were by dry bulk vessels, 9 percent were by RO-ROs, and 6 percent were by general cargo ships. In 2010, 97 percent of the tanker calls were by double-hull tankers, up from 78 percent five years earlier.

Vessel Calls at U.S. Ports, 2005-2010

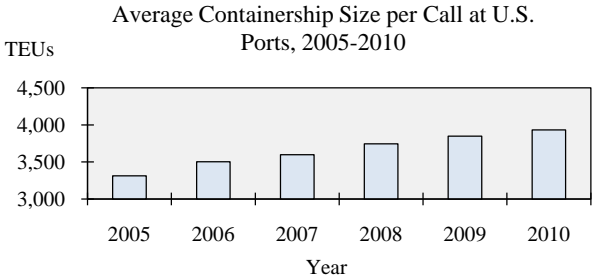


Vessel Calls at U.S. Ports, 2005-2010

Type	2005	2006	2007	2008	2009	2010	% Ch 2005-10
Tanker	20,118	21,231	21,724	20,907	19,641	21,944	9.1
D/Hull	15,869	17,747	19,026	19,036	18,631	21,265	34.0
Product	12,217	13,282	13,277	12,662	11,815	13,257	8.5
D/Hull	8,799	10,252	10,811	10,952	10,887	12,622	43.4
Crude	7,901	7,949	8,447	8,245	7,826	8,687	9.9
D/Hull	7,070	7,495	8,215	8,084	7,744	8,644	22.3
Container	18,542	19,591	19,863	18,735	18,206	19,530	5.3
Dry Bulk	11,406	12,508	11,040	10,363	8,587	10,716	-6.0
Ro-Ro	5,663	6,318	6,077	5,964	4,951	5,849	3.3
Vehicle	3,652	4,182	4,084	4,102	3,336	4,100	12.3
Gas	969	961	917	769	704	813	-16.1
LNG	203	213	202	171	201	202	-0.5
Combo	414	334	235	180	135	168	-59.4
General	3,935	4,054	3,948	3,660	3,336	3,727	-5.3
All Types	61,047	64,997	63,804	60,578	55,560	62,747	2.8

## Vessel Calls

In 2010, the average vessel size per call at U.S. ports was 53,592 DWT, up 7 percent from five years before. The average size of containerships increased by 19 percent in terms of TEU capacity (15 percent in terms of DWT) as carriers expanded the deployment of post-panamax (5,000+ TEU) containerships in U.S. trades.



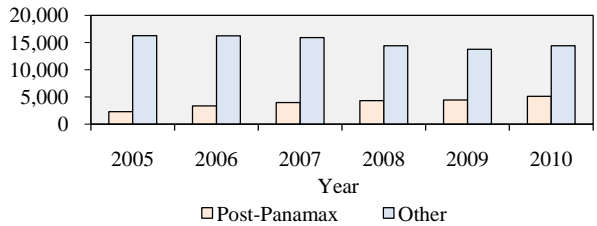
Average Vessel Size per Call at U.S. Ports, 2005-2010  
(DWT unless otherwise specified)

Type	2005	2006	2007	2008	2009	2010	% Ch. 2005-10
Tanker	72,056	71,831	72,222	72,281	72,066	71,131	-1.3
D/Hull	76,240	75,891	76,408	75,034	73,623	72,081	-5.5
Product	37,956	37,669	36,699	36,661	37,345	37,275	-1.8
D/Hull	37,799	37,934	36,994	36,936	37,303	37,195	-1.6
Crude	124,784	128,913	128,058	126,984	124,486	122,798	-1.6
D/Hull	124,083	127,811	128,278	126,648	124,685	123,018	-0.9
Container (TEU)	44,593	46,598	47,720	49,213	50,202	51,263	15.0
DWT	3,314	3,502	3,597	3,744	3,848	3,932	18.6
Dry Bulk	43,276	44,746	45,270	47,306	48,081	50,298	16.2
Ro-Ro	19,838	19,751	19,635	20,153	20,628	20,577	3.7
Vehicle	18,506	18,801	18,585	18,896	19,203	19,261	4.1
Gas (CM)	41,411	40,738	40,462	40,755	44,487	43,092	4.1
DWT	61,410	60,037	59,369	60,159	66,986	64,433	4.9
LNG (CM)	70,374	70,962	73,703	70,097	74,465	74,445	5.8
DWT	128,504	130,006	134,832	128,834	135,895	137,028	6.6
Combo	87,151	86,344	93,617	97,607	102,154	109,238	25.3
General	25,101	25,446	25,572	24,585	23,689	23,598	-6.0
All Types	50,083	50,672	51,658	52,535	53,430	53,592	7.0

# Vessel Calls

Over the last five years, calls by containerships of 5,000 TEU or greater, which are largely post-panamax class, increased by 124 percent while the number of 5,000+ TEU containerships deployed in U.S. trades increased by 105 percent. In 2010, 5,000+ TEU containerships accounted for 26 percent of containership calls at U.S. ports, up from 12 percent five years before.

Containership Calls at U.S. Ports, Post-Panamax and Other, 2005-2010

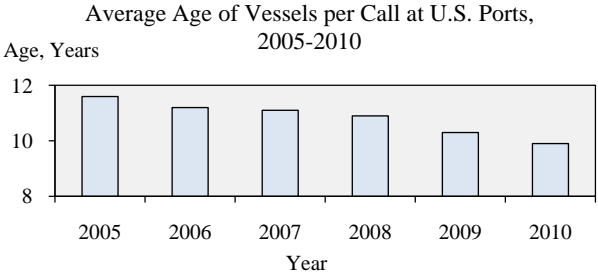


Containership Calls at U.S. Ports by Size, 2005-2010

Vessel Size, TEUs	2005	2006	2007	2008	2009	2010
<b>Calls</b>						
< 2,000	3,994	4,146	3,904	3,493	3,290	3,709
2,000-2,999	4,410	3,986	4,099	3,347	2,677	2,761
3,000-3,999	3,624	3,333	2,866	2,460	2,500	2,053
4,000-4,999	4,226	4,782	5,033	5,121	5,305	5,881
> 4,999	2,288	3,344	3,961	4,314	4,434	5,126
<b>Total</b>	<b>18,542</b>	<b>19,591</b>	<b>19,863</b>	<b>18,735</b>	<b>18,206</b>	<b>19,530</b>
<b>Vessels</b>						
< 2,000	207	212	196	196	179	178
2,000-2,999	259	257	230	219	220	206
3,000-3,999	189	177	166	141	147	130
4,000-4,999	234	258	271	284	306	315
> 4,999	193	260	277	326	366	396
<b>Total</b>	<b>1,082</b>	<b>1,164</b>	<b>1,140</b>	<b>1,166</b>	<b>1,218</b>	<b>1,225</b>

# Vessel Calls

In 2010, the average age of vessels calling at U.S. ports was 9.9 years, down from 11.6 years in 2005. The 5-year decline in average age reflects the replacement of vessels built during the shipbuilding boom of the late 1970's.



Average Age of Vessels per Call at U.S. Ports, 2005-2010  
(Years Old)

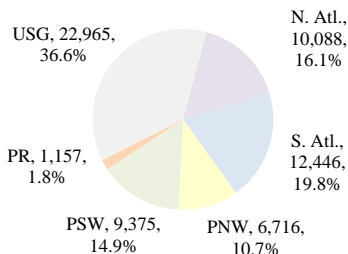
Type	2005	2006	2007	2008	2009	2010
Tanker	10.1	9.5	9.2	8.8	8.3	7.9
D/Hull	7.1	7.0	7.4	7.4	7.5	7.3
Product	11.3	10.6	10.2	9.5	8.7	7.7
D/Hull	7.4	7.3	7.5	7.3	7.3	6.8
Crude	8.3	7.6	7.5	7.6	7.8	8.1
D/Hull	6.6	6.7	7.2	7.4	7.6	8.0
Container	10.6	10.2	10.0	10.1	10.1	10.2
Dry Bulk	12.4	12.2	12.8	12.8	12.2	11.0
Ro-Ro	16.6	16.8	16.7	15.9	13.6	12.7
Vehicle	14.8	14.4	14.2	13.7	9.6	9.0
Gas	12.3	11.7	11.2	12.8	10.2	9.4
LNG	9.1	9.8	7.1	12.7	8.8	10.8
Combo	11.3	12.9	12.5	12.0	12.3	12.2
General	13.6	13.4	13.5	13.5	13.2	13.2
All Types	11.6	11.2	11.1	10.9	10.3	9.9



## Vessel Calls

In 2010, Gulf ports accounted for 37 percent of U.S. vessel calls, up from 31 percent five years earlier. The Gulf share of U.S. vessel calls increased for all major vessel types.

Vessel Calls at U.S. Ports by Coast, 2010



Vessel Calls at U.S. Ports by Coast, 2005 and 2010  
(Percent of Calls)

Type	N. Atl.	S. Atl.	PNW	PSW	PR	USG	Total
<b>2005</b>							
Tanker	19.3	8.1	8.4	10.9	1.3	52.1	100.0
Container	17.7	34.2	10.2	27.8	2.6	7.4	100.0
Dry Bulk	14.1	11.0	20.7	13.4	0.6	40.1	100.0
Ro-Ro	28.0	29.7	10.8	21.8	3.8	6.0	100.0
Gas	18.0	7.1	9.6	5.3	2.5	57.6	100.0
Combo	31.2	14.0	1.2	3.1	1.9	48.6	100.0
General	21.2	17.4	7.4	18.9	5.7	29.5	100.0
All Types	18.8	19.2	11.4	17.9	2.1	30.6	100.0
<b>2010</b>							
Tanker	14.0	6.9	6.5	11.1	1.1	60.4	100.0
Container	17.1	37.4	8.4	24.8	2.3	9.9	100.0
Dry Bulk	9.7	10.3	25.5	7.6	0.6	46.3	100.0
Ro-Ro	30.9	31.0	9.7	15.4	3.5	9.5	100.0
Gas	15.7	5.0	2.7	3.1	2.7	70.7	100.0
Combo	16.7	17.3	0.6	3.6	0.0	61.9	100.0
General	17.9	17.1	8.9	9.5	4.8	41.9	100.0
All Types	16.1	19.8	10.7	14.9	1.8	36.6	100.0

## Vessel Calls

In 2010, the top 10 U.S. ports accounted for 58 percent of oceangoing vessel calls. Houston was largest for tanker calls; LA/LB was largest for containership calls, and New Orleans was largest for dry bulk calls.

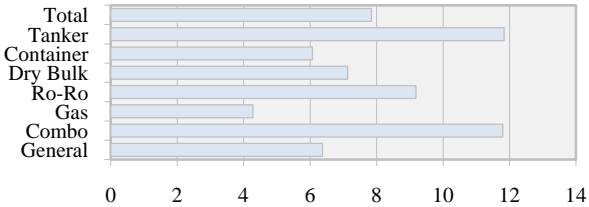
### Vessel Calls at U.S. Ports, Top Ten Ports, 2010

<b>Tanker</b>		<b>Container</b>		<b>Dry Bulk</b>	
Houston	4,236	LA/LB	2,610	New Orleans	2,646
New Orleans	1,930	New York	2,421	Columbia R.	2,031
New York	1,302	Virginia Ports	1,908	Virginia Ports	692
Texas City	1,135	Savannah	1,819	Houston	623
LA/LB	1,040	San Francisco	1,741	Baltimore	471
Philadelphia	802	Charleston	1,266	San Francisco	386
Corpus Christi	792	Houston	1,012	LA/LB	364
Port Arthur	771	Port	834	Mobile	337
San Francisco	694	Miami	767	Tacoma	253
Gal. Lightering	591	Seattle	749	Tampa	251
Top 10	13,293	Top 10	15,127	Top 10	8,054
All Ports	21,944	All Ports	19,530	All Ports	10,716
<b>Ro-Ro</b>		<b>Gas</b>		<b>General</b>	
Baltimore	902	Houston	182	Houston	424
Jacksonville	659	New Orleans	105	New Orleans	419
New York	529	Tampa	78	Philadelphia	416
Brunswick	296	Boston	66	Columbia	214
Tacoma	286	Freeport	49	LA/LB	182
LA/Long	272	Elba Island	37	San Juan, PR	173
Charleston	264	Point Comfort	37	Mobile	164
Philadelphia	204	Pascagoula	34	Port Arthur	142
San Juan, PR	203	Philadelphia	26	Jacksonville	123
Miami	201	Port Arthur	25	Baltimore	121
Top 10	3,816	Top 10	639	Top 10	2,378
All Ports	5,849	All Ports	813	All Ports	3,727
<b>Combo</b>		<b>All Types</b>			
Houston	32	Houston	6,698		
Virginia Ports	27	New Orleans	5,544		
Corpus Christi	22	New York	4,534		
Mobile	20	LA/LB	4,469		
New Orleans	18	Virginia Ports	3,021		
Baltimore	16	San Francisco	2,997		
New York	8	Columbia R.	2,635		
Honolulu	4	Savannah	2,406		
LOOP	4	Philadelphia	2,022		
Portland, ME	3	Baltimore	2,011		
Top 10	154	Top 10	36,337		
All Ports	168	All Ports	62,747		

## Vessel Calls

In 2010, U.S. ports accounted for nearly 8 percent of global vessel calls. The U.S. ranked second in terms of overall calls. Tanker calls at U.S. ports accounted for nearly 12 percent of global tanker calls.

U.S. Share of Global Vessel Calls  
by Vessel Type, 2010  
(Percent of Calls)



Global Vessel Calls by Country, 2010

Country	Tanker	Cont.	Dry				Combo	Gen.	Total
			Bulk	Ro-Ro	Gas				
China	6,476	54,372	14,886	1,536	414	111	4,257	82,052	
U.S.	21,944	19,530	10,716	5,849	813	168	3,727	62,747	
Japan	4,345	23,299	11,134	6,405	2,003	40	5,335	52,561	
Singapore	10,682	15,264	11,387	1,815	791	139	2,444	42,522	
S. Korea	5,497	15,096	6,726	3,105	993	60	2,458	33,935	
Brazil	6,487	9,921	8,264	1,061	239	98	2,201	28,271	
Taiwan	2,957	13,884	4,570	157	400	24	1,020	23,012	
Italy	6,991	8,098	1,858	3,785	366	20	1,335	22,453	
Australia	2,787	4,048	10,855	1,945	419	42	1,538	21,634	
India	7,659	4,507	6,689	255	829	37	1,465	21,441	
Top 10	75,825	168,019	87,085	25,913	7,267	739	25,780	390,628	
Other	109,539	153,669	63,245	37,760	11,740	685	32,711	409,349	
Total	185,364	321,688	150,330	63,673	19,007	1,424	58,491	799,977	

## Vessel Calls

In 2010, U.S.-flag vessels accounted for 11 percent of calls (all flags) at U.S. ports, down from 13 percent five years earlier. Jones Act vessels accounted for 70 percent of U.S-flag calls, down from 80 percent in 2005. Of the U.S.-flag calls, 42 percent were by tankers, 39 percent were by containerships, and 16 percent were by Ro-Ro vessels.

Vessel Calls at U.S. Ports, U.S.-flag and Jones Act Fleets, 2005-2010

Vessel Type	2005	2006	2007	2008	2009	2010	% Ch. 2005-10
<b>U.S.-Flag</b>							
Tanker	3,676	3,421	3,581	3,378	3,222	3,033	-17.5
D/Hull	2,012	2,190	2,669	2,686	2,745	2,702	34.3
Product	2,532	2,455	2,527	2,440	2,388	2,274	-10.2
D/Hull	1,372	1,474	1,665	1,799	1,919	1,943	41.6
Crude	1,144	966	1,054	938	834	759	-33.7
D/Hull	640	716	1,004	887	826	759	18.6
Container	2,605	2,465	2,557	2,477	2,668	2,820	8.3
Dry Bulk	131	77	99	97	102	125	-4.6
Ro-Ro	1,238	1,364	1,243	1,152	909	1,176	-5.0
Vehicle	451	565	484	496	391	572	26.8
Combo	0	0	0	0	1	0	na
General	95	53	37	44	20	46	-51.6
All Types	7,745	7,380	7,517	7,148	6,922	7,200	-7.0
<b>Jones Act</b>							
Tanker	3,662	3,386	3,545	3,351	3,191	3,004	-18.0
D/Hull	1,998	2,155	2,633	2,659	2,714	2,678	34.0
Product	2,518	2,420	2,491	2,413	2,357	2,245	-10.8
D/Hull	1,358	1,439	1,629	1,772	1,888	1,919	41.3
Crude	1,144	966	1,054	938	834	759	-33.7
D/Hull	640	716	1,004	887	826	759	18.6
Container	1,579	1,490	1,417	1,275	1,272	1,254	-20.6
Dry Bulk	72	38	63	55	59	82	13.9
Ro-Ro	856	868	842	735	579	683	-20.2
Vehicle	97	113	120	109	102	131	35.1
Combo	0	0	0	0	1	0	na
General	63	25	14	17	4	17	-73.0
All Types	6,232	5,807	5,881	5,433	5,106	5,040	-19.1

## Vessel Calls

Over the last five years the average age of U.S.-flag vessels per call fell from 19.6 years to 16.7 years as many of vessels built during the shipbuilding boom of the late 1970's were replaced. Despite the upgrades, the average age of U.S.-flag vessels per call was much greater than that for foreign-flag vessels (9.0 years).

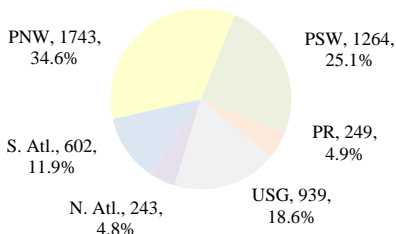
Average Age of Vessels per Call at U.S. Ports, U.S.-Flag and Jones Act Fleets, 2005-2010  
(Years Old)

Type	2005	2006	2007	2008	2009	2010
<b>U.S.-Flag</b>						
Tanker	18.9	17.9	17.1	16.2	15.1	13.7
D/Hull	14.8	14.5	14.9	13.9	13.2	12.0
Product	19.8	19.8	19.8	18.4	16.9	14.8
D/Hull	17.1	17.5	17.8	16	14.7	12.6
Crude	17	12.8	10.7	10.2	9.9	10.5
D/Hull	9.9	8.4	10	9.6	9.8	10.5
Container	20.8	21.3	20.2	19.2	18.5	19.0
Dry Bulk	19.9	21.8	23.8	24.4	25.1	26.5
Ro-Ro	18.3	19.1	19.7	18.4	18.3	17.6
Vehicle	9.7	10.6	11.8	10.8	11.2	10.7
Combo	na	na	na	na	22.0	na
General	27.5	30.3	30.3	31.8	27.2	25.2
All Types	19.6	19.4	18.8	17.8	17.0	16.7
<b>Jones Act</b>						
Tanker	19.0	18.0	17.2	16.2	15.1	13.7
D/Hull	14.8	14.6	15.0	14.0	13.2	12.0
Product	19.8	20.0	20.0	18.6	17.0	14.8
D/Hull	17.2	17.7	18.0	16.2	14.8	12.6
Crude	17.0	12.8	10.7	10.2	9.9	10.5
D/Hull	9.9	8.4	10.0	9.6	9.8	10.5
Container	24.6	25.9	27.0	26.5	27.6	28.6
Dry Bulk	24.4	25.5	26.8	28.1	28.7	28.8
Ro-Ro	20.4	21.9	22.0	20.8	19.7	19.8
Vehicle	0.1	1.1	6.1	3.3	3.7	4.1
Combo	na	na	na	na	22.0	na
General	30.0	35.9	38.8	41.4	30.3	18.6
All Types	20.8	20.7	20.4	19.4	18.9	18.5

## Vessel Calls

In 2010, South Atlantic ports accounted for 12 percent of the calls by Jones Act vessels, up from 9 percent 5 years before. South Atlantic shares increased for every vessel type.

Jones-Act Vessel Calls at U.S. Ports  
by Coast, 2010



Jones-Act Vessel Calls by Coast, 2005 and 2010  
(Percent of Calls)

Type	N. Atl.	S. Atl.	PNW	PSW	PR	USG	Total
<b>2005</b>							
Tanker	9.1	7.9	36.1	17.5	0.3	29.1	100.0
Container	3.4	7.7	31.3	40.7	13.7	3.2	100.0
Dry Bulk	41.7	22.2	5.6	0.0	0.0	30.6	100.0
Ro-Ro	0.6	16.1	23.7	47.0	11.8	0.8	100.0
General	0.0	3.2	23.8	34.9	0.0	38.1	100.0
All Types	6.8	9.1	32.7	27.4	5.3	18.7	100.0
<b>2010</b>							
Tanker	4.6	10.5	36.6	19.4	0.1	28.8	100.0
Container	4.3	8.1	35.7	39.2	10.3	2.4	100.0
Dry Bulk	7.3	61.0	0.0	3.7	0.0	28.0	100.0
Ro-Ro	6.4	19.0	28.6	26.2	17.3	2.5	100.0
General	5.9	29.4	11.8	35.3	0.0	17.6	100.0
All Types	4.8	11.9	34.6	25.1	4.9	18.6	100.0

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