



Grain Transportation Report

A weekly publication of the Transportation and Marketing Programs/Transportation Services Division
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Aug. 1, 2013

WEEKLY HIGHLIGHTS

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STB Revises Relief Caps in Small and Medium-sized Rate Cases

On July 23, the Surface Transportation Board (STB) removed the \$5 million limitation on rate relief for medium-sized rate disputes and increased the maximum rate relief from \$1 to \$4 million over a 5-year period for smaller disputes. In addition, the STB set the interest rate on reparations that railroads must pay to shippers for charging unreasonable rates at the U.S. prime rate.

Total Grain Inspections Down Slightly

For the week ending July 25, total inspections of grain (corn, wheat, and soybeans) for export from the major export regions reached .986 million metric tons (mmt), down 1 percent from the previous week and 34 percent below last year at this time. Wheat and corn inspections increased respectively 6 and 10 percent from the past week, but soybeans dropped 68 percent. Wheat inspections also continued above the 3-year average. Outstanding (unshipped) export sales of wheat continued above 8 mmt, 5 percent above the 4-week running average. Japan recently joined South Korea in lifting a 2-month ban on imports of white wheat from Oregon and Washington state.

July Wheat Exports on the Rise through the Atlantic Port Region

USDA in July projected 2013/14 U.S. wheat exports to reach 1,075 million bushels, 6.5 percent higher than the previous year, pushed up by increased demand in China. U.S. wheat exports during July, however, have surged significantly, especially through the Atlantic port region. Atlantic grain export inspections in July were 229 percent higher than last year and almost 300 percent higher than the 3-year average. Higher Southeast wheat production is probably moving to the Southeast ports for export. The July rail grain deliveries to the South Atlantic and East Gulf port region were 123 percent higher than last year and 292 percent higher than the 3-year average. According to the USDA June 28 acreage report, farmers in Alabama, Georgia, Florida, and South Carolina increased plantings of wheat by 27 percent from the previous year and by 53 percent from the 3-year average. Corn planted acreage in these States also increased 17 percent from the previous year and by 21 percent from the 3-year average.

Mississippi River Levels Dropping

As of August 1, the Mississippi River gage at St. Louis, MO, was 7.0 feet, which was a significant change from the mid-year high water conditions when levels crested at 40.5 feet. The July average river level for St. Louis was 17.8 feet, 18 percent higher than the 10-year average. However, the National Weather Service forecasts August St. Louis river levels are expected to drop to 1.5 feet by August 14. The year began with drought conditions that lowered the St. Louis gage to -4.4 feet in January. The combination of drought and flooding along with lower export demand has reduced year-to-date grain barge movements by 35 percent compared to last year (see Table 10). August 1 will mark the 20th anniversary of the highest crest ever recorded on the Mississippi River at St. Louis, when the river reached 49.6 feet.

Snapshots by Sector

Rail

U.S. railroads originated 16,090 **carloads of grain** during the week ending July 20, down 1 percent from last week, 8 percent from last year, and 15 percent from the 3-year average.

During the week ending July 25, average August non-shuttle **secondary railcar bids/offers per car** were \$4 above tariff, up \$4 from last week and \$125.50 higher than last year. Average shuttle bids/offers were \$138 below tariff, up \$8 from last week and \$143.50 higher than last year.

Barge

During the week ending July 27, **barge grain movements** totaled 441,151 tons, 28 percent higher than the previous week but 40.7 percent lower than the same period last year.

During the week ending July 27, 283 grain barges **moved down river**, up 28 percent from last week; 329 grain barges were **unloaded in New Orleans**, up 4.4 percent from the previous week.

Ocean

During the week ending July 25, 20 **ocean-going grain vessels** were loaded in the Gulf, down 46 percent from the same period last year. Forty-six vessels are expected to be loaded within the next 10 days, up 5 percent from the same period last year.

During the week ending July 26, the ocean freight rate for shipping bulk grain from the Gulf to Japan was \$46 per mt, 1 percent less than the previous week. The cost of shipping from the Pacific Northwest to Japan was \$24 per mt, 3 percent less than the previous week.

Fuel

During the week ending July 29, U.S. average **diesel fuel prices**, at \$3.92 per gallon, were up 1 cent from the previous week and 12 cents higher than the same week last year.

Feature Article/Calendar

The Shift to Larger Railcars

Summary

Larger railcars (C-114 covered hopper cars) for grain shipments saw increased use beginning in 1994 because of their decreased operating costs. Major railroads received the majority of the cost savings, but shippers also experienced savings. As their use has increased, the amount of grain shipped in smaller railcars (C-113 covered hopper cars) has decreased. This shift has changed the dynamics of railroad economics, including track and bridge upgrades necessary to handle heavier cars and the associated costs. Short line and regional railroads are at a disadvantage compared to major railroads because they have fewer financial resources available for rail line upgrading. Nevertheless, they have been systematically upgrading their track for the movement of C-114 hopper cars. Some researchers have advocated more State funding be directed to rail branch line upgrades. This would help reduce the damage to roads caused by farmers trucking grain to the more distant main-line elevators.

The Shift to Larger Grain Cars¹

Using larger hopper cars reduces costs for railroads. C-114 hopper cars, which weigh 286,000 pounds when loaded, can hold 10 percent more grain than C-113 hopper cars, which weigh 263,000 pounds when loaded. This means that fewer cars are needed to move the same volume of grain, resulting in labor and capital efficiencies. The larger C-114 railcar volume also reduces the number of rail cars in use, resulting in reduced rail congestion and fewer cars requiring repair and eventual replacement. The better load-to-weight ratio of the empty railcar also makes the larger cars more efficient in fuel usage and locomotive power than smaller railcars.²

The shift to C-114 covered hoppers occurred quite rapidly. In 1994, C-114 railcars moved 3.3 million tons (2.4 percent) of grain and oilseeds; this increased to 100 million tons (68.6 percent) by 2011 (Figures 1, 2). Over this period, tonnages shipped in larger railcars increased steadily, while use of C-113 hopper cars decreased. Grain tonnages and percentages hauled in the larger cars have been increasing since 1994, with only a small exception in 2003 and 2004. The dip in C-114 tonnages during 2003 and 2004 shown in Figure 1 could be due to rail congestion and lower grain exports. Rail congestion affects the quickly-turning C-114 cars, which are normally used in shuttle movements, more than C-113 cars, which are more widely used in carload movements.

Figure 1: Grain Tonnages Moved by Type of Covered Hopper Railcar

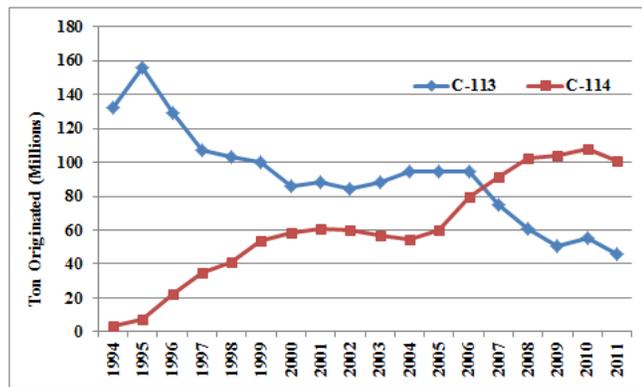
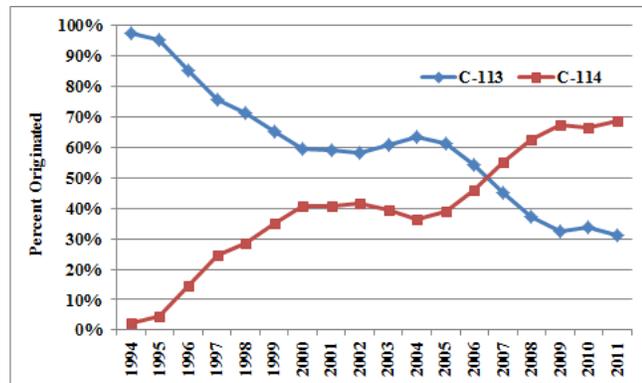


Figure 2: Percentage of Grain Moved by Type of Covered Hopper Railcar



¹ The findings and data presented in this paper come from a USDA analysis of the Surface Transportation Board's Confidential Waybill Sample. Total tonnage shipped by C-113 and C-114 covered hopper cars were aggregated for each year from 1994-2011.

² Babcock, Michael W. and James Sanderson, *The Impact of Jumbo Covered Hopper Cars on Kansas Shortline Railroads*, K-Tran report No. KSU-04-3, September 2004, and Bitzan, John D. and Denver D. Tolliver, *Heavier Loading Rail Cars*, Mountain-Plains Consortium Report No. 01-127.4, October 2001.

Cost of Upgrading Rail Lines

Short line and regional railroads serving grain producers are affected more by the shift to larger railcars than major railroads because they have fewer financial resources to upgrade their rail lines. In 2011, short line and regional railroads operated 43,131 miles of the U.S. rail network and had \$4 billion in revenue.¹ In contrast, major railroads operated more than 95,387 miles and had revenues of \$65 billion during 2011. The major railroads averaged \$681,434 in revenue per route mile in 2011, while short line and regional railroads averaged only \$92,741.²

The cost of upgrading the track of smaller railroads to handle larger railcars varies. In a study completed in 2000, the cost of upgrading railroad tracks and bridges was estimated to be \$6.8 billion—more than \$137,000 per mile.³ In 2001, a Washington State study estimated that upgrading branch lines to handle heavier railcars would cost \$250,000 to \$300,000 per mile, exclusive of bridge rehabilitation costs.⁴ A 1998 Iowa report concluded it would cost \$250,000 per mile to upgrade branch lines to handle larger railcars.⁵ However, many short lines concluded that using C-114 hopper cars would result in savings greater than the costs of upgrading the lines due to the decreased crew and equipment costs associated with the larger railcars. In 2002, 18,091 route miles, or 39 percent, of short line route miles, were capable of handling C-114 hoppers; by 2010, 30,009 route miles, or 57 percent, of short line route miles were able to handle them.⁶

Some researchers and analysts have suggested that movement to heavier rail hopper cars has a public policy dimension. It has been suggested that in order to bring the savings from larger cars to more farmers and to reduce the costs of rural road maintenance caused by increased farmer trucking of grain, States should consider subsidizing rural branch lines upgrades. They argue that public subsidies could be justified if they reduce total costs, both public and private.

Conclusion

Since 1994, the use of C-114 hopper cars has increased steadily while the use of C-113 hopper cars has declined. Although several older studies concluded that the shift to larger railcars would result in the abandonment of some route miles by short line railroads⁷, this has not happened. In fact, the ability of short line railroads and bridges to handle larger C-114 hopper cars has gradually increased. Although the costs of upgrades are high, the possible benefits are even greater. These upgrades are occurring at a slower pace among short line railroads, but they are occurring nonetheless. Some researchers have stated that public subsidies may be needed to assist in upgrading rail branch lines. Marvin.Prater@ams.usda.gov

¹ AAR, *Railroad Facts*, 2012 edition.

² Ibid.

³ Zeta-Tech Associates, Inc., *An Estimation of the Investment in Track and Structures Needed to Handle 286,000 lb. Rail Cars*,” May 26, 2000.

⁴ Casavant, Ken, and Denver Tolliver, for the Washington State Department of Transportation, *Impact of Heavy Axle Loads on Light-Density Lines in the State of Washington*, March 2001.

⁵ Iowa Department of Transportation, *286,000# Upgrading Report for Iowa Branchlines*, July 1998.

⁶ ASLRRRA, *Short Line and Regional Railroad Facts and Figures*, 2012 edition.

⁷ Martens, Bobby Joel, *An Economic Analysis of Heavy Axle Loads: The Effects on Short Line Railroads and the Tradeoffs Associated With Heavy Cars*, a thesis, North Dakota State University, March 1999 and Casavant, Ken and Denver Tolliver, op cit.

Grain Transportation Indicators

Table 1
Grain Transport Cost Indicators¹

Week ending	Truck	Rail		Barge	Ocean	
		Unit Train	Shuttle		Gulf	Pacific
07/31/13	263	234	202	143	206	170
07/24/13	262	234	202	147	208	176

¹Indicator: Base year 2000 = 100; Weekly updates include truck = diesel (\$/gallon); rail = near-month secondary rail market bid and monthly tariff rate with fuel surcharge (\$/car); barge = Illinois River barge rate (index = percent of tariff rate); and ocean = routes to Japan (\$/metric ton)

Source: Transportation & Marketing Programs/AMS/USDA

Table 2
Market Update: U.S. Origins to Export Position Price Spreads (\$/bushel)

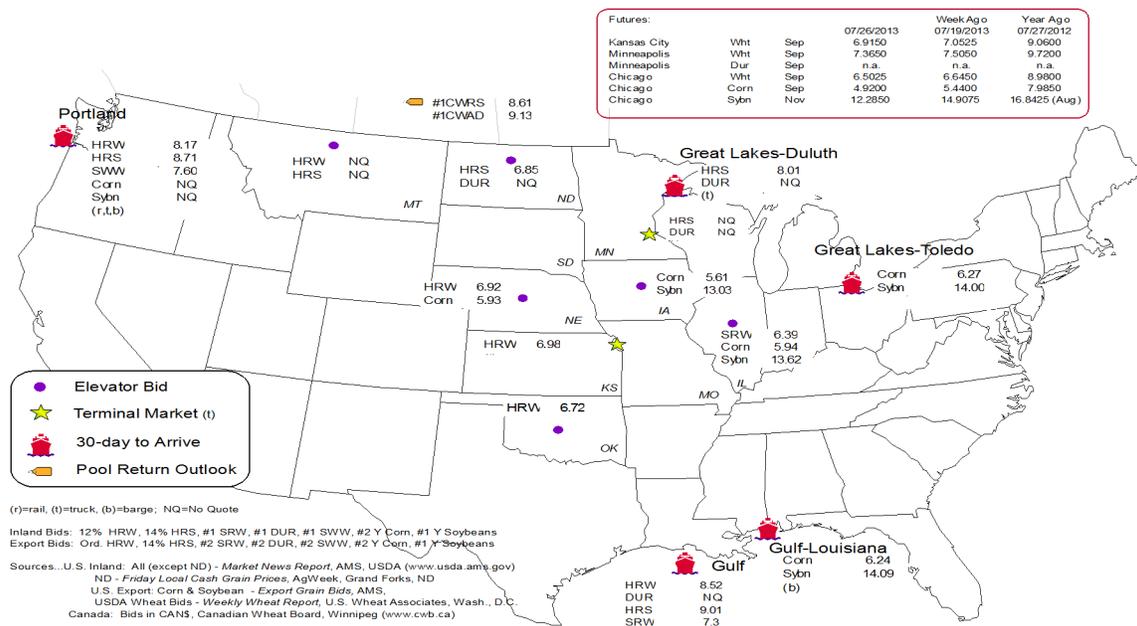
Commodity	Origin--Destination	7/26/2013	7/19/2013
Corn	IL--Gulf	-0.30	-0.48
Corn	NE--Gulf	-0.31	-0.31
Soybean	IA--Gulf	-1.06	-0.73
HRW	KS--Gulf	-1.54	-1.54
HRS	ND--Portland	-1.86	-1.78

Note: nq = no quote

Source: Transportation & Marketing Programs/AMS/USDA

The **grain bid summary** illustrates the market relationships for commodities. Positive and negative adjustments in differential between terminal and futures markets, and the relationship to inland market points, are indicators of changes in fundamental market supply and demand. The map may be used to monitor market and time differentials.

Figure 1
Grain bid Summary



Rail Transportation

Table 3

Rail Deliveries to Port (carloads)¹

Week ending	Mississippi		Pacific	Atlantic &	Total	Week ending	Cross-Border Mexico ³
	Gulf	Texas Gulf	Northwest	East Gulf			
07/24/2013 ^p	114	398	789	237	1,538	07/20/13	1,213
07/17/2013 ^r	137	1,357	668	158	2,320	07/13/13	1,737
2013 YTD ^r	9,871	35,926	74,747	9,903	130,447	2013 YTD	35,423
2012 YTD ^r	4,823	22,686	119,073	11,035	157,617	2012 YTD	60,645
2013 YTD as % of 2012 YTD	205	158	63	90	83	% change YTD	58
Last 4 weeks as % of 2012 ²	79	174	33	102	61	Last 4wks % 2012	99
Last 4 weeks as % of 4-year avg. ²	106	130	30	77	54	Last 4wks % 4 yr	89
Total 2012	22,604	40,780	199,419	34,562	287,462	Total 2012	92,008
Total 2011	27,358	77,515	191,187	24,088	320,148	Total 2011	97,118

¹ Data is incomplete as it is voluntarily provided

² Compared with same 4-weeks in 2012 and prior 4-year average.

³ Cross-border weekly data is approximately 15 percent below the Association of American Railroads reported weekly carloads received by Mexican railroads to reflect switching between KCSM and FerroMex.

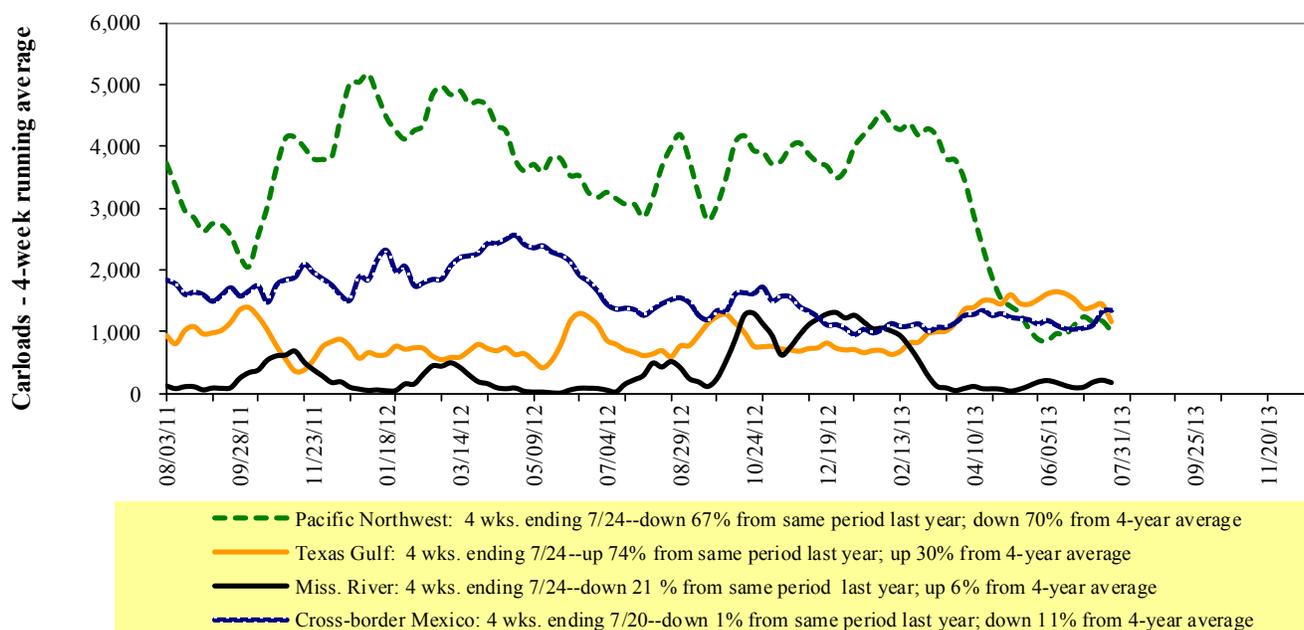
YTD = year-to-date; p = preliminary data; r = revised data; YTD PNW carloads includes revisions back to August 2011 ; n/a = not available

Source: Transportation & Marketing Programs/AMS/USDA

Railroads originate approximately 29 percent of U.S. grain shipments. Trends in these loadings are indicative of market conditions and expectations.

Figure 2

Rail Deliveries to Port



Source: Transportation & Marketing Programs/AMS/USDA

Table 4

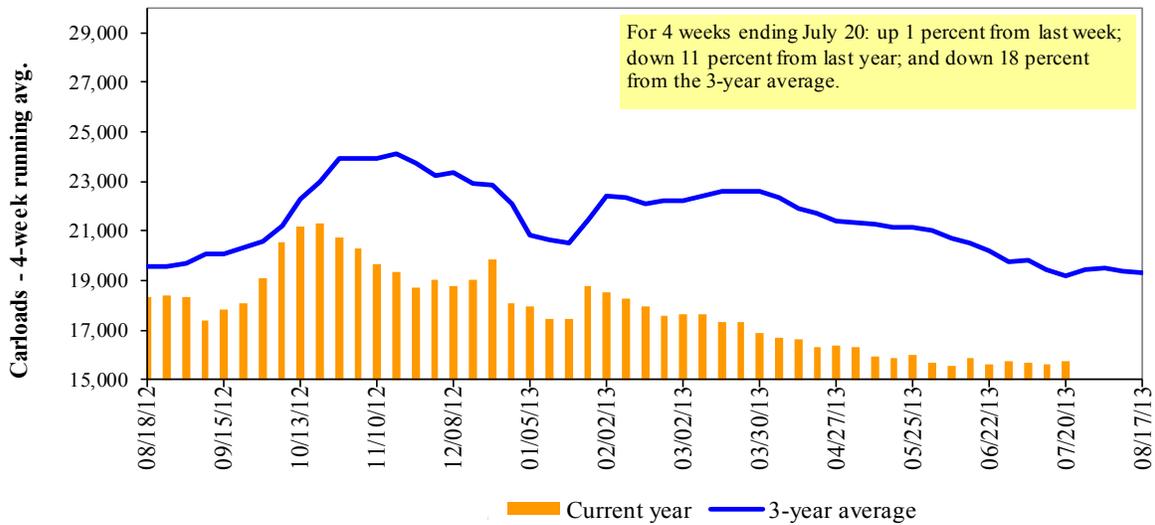
Class I Rail Carrier Grain Car Bulletin (grain carloads originated)

Week ending	East		West			U.S. total	Canada	
	CSXT	NS	BNSF	KCS	UP		CN	CP
07/20/13	1,442	2,101	7,675	411	4,461	16,090	3,256	5,490
This week last year	1,403	2,875	7,648	377	5,204	17,507	3,624	4,441
2013 YTD	42,328	73,132	244,976	13,578	110,840	484,854	92,611	149,002
2012 YTD	54,306	82,001	279,753	14,432	150,209	580,701	111,395	135,645
2013 YTD as % of 2012 YTD	78	89	88	94	74	83	83	110
Last 4 weeks as % of 2012	92	87	97	103	77	89	67	111
Last 4 weeks as % of 3-yr avg. ¹	76	84	87	74	72	81	70	103
Total 2012	85,384	145,336	515,638	26,936	244,077	1,017,371	204,068	266,266

¹As a percent of the same period in 2009 and the prior 3-year average. YTD = year-to-date.

Source: Association of American Railroads (www.aar.org)

Figure 3
Total Weekly U.S. Class I Railroad Grain Car Loadings



Source: Association of American Railroads

Table 5

Railcar Auction Offerings¹ (\$/car)²

Week ending	Delivery period							
	Aug-13	Aug-12	Sep-13	Sep-12	Oct-13	Oct-12	Nov-13	Nov-12
7/25/2013								
BNSF ³								
COT grain units	0	0	0	0	2	no offer	no offer	no offer
COT grain single-car ⁵	0..1	1..7	0..1	0..7	0	no offer	no offer	no offer
UP ⁴								
GCAS/Region 1	no bids	no bids	no bids	no bids	no bids	no bids	n/a	n/a
GCAS/Region 2	no bids	no bids	no bids	no bids	1	no bids	n/a	n/a

¹Auction offerings are for single-car and unit train shipments only.

²Average premium/discount to tariff, last auction

³BNSF - COT = Certificate of Transportation; north grain and south grain bids were combined effective the week ending 6/24/06.

⁴UP - GCAS = Grain Car Allocation System

 Region 1 includes: AR, IL, LA, MO, NM, OK, TX, WI, and Duluth, MN.

 Region 2 includes: CO, IA, KS, MN, NE, WY, and Kansas City and St. Joseph, MO.

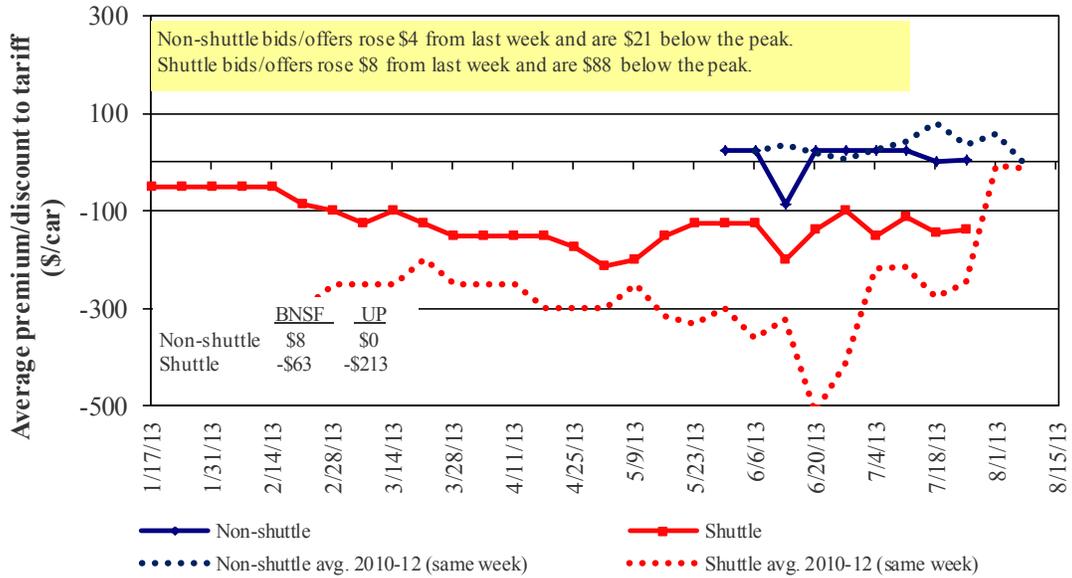
⁵Range is shown because average is not available. Not available = n/a.

Source: Transportation & Marketing Programs/AMS/USDA.

The **secondary rail market** information reflects trade values for service that was originally purchased from the railroad carrier as some form of guaranteed freight. The **auction and secondary rail** values are indicators of rail service quality and demand/supply.

Figure 4

Bids/Offers for Railcars to be Delivered in August 2013, Secondary Market

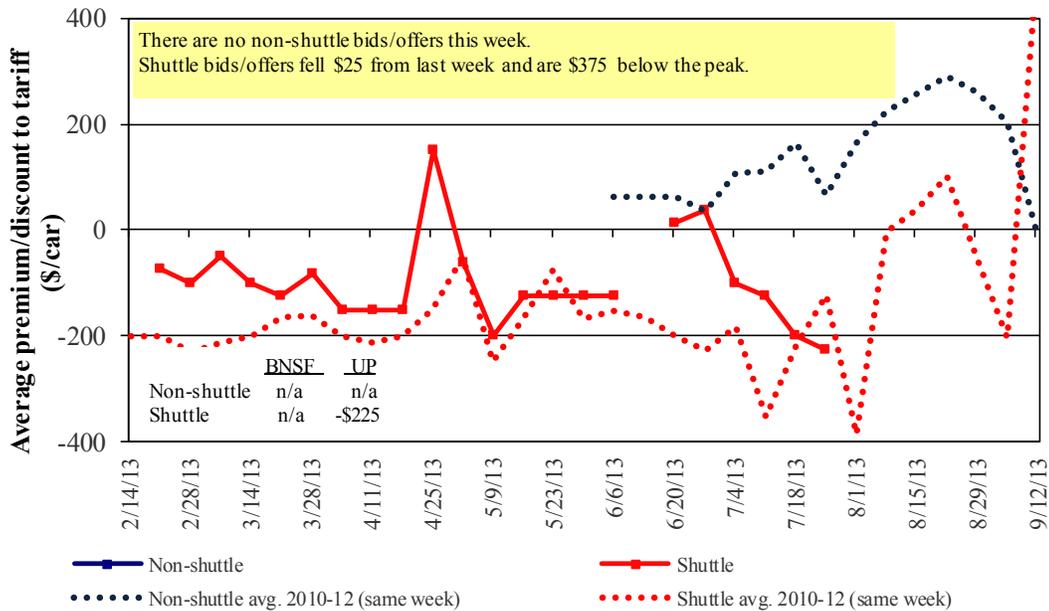


Non-shuttle bids include unit-train and single-car bids. n/a = not available.

Source: Transportation & Marketing Programs/AMS/USDA

Figure 5

Bids/Offers for Railcars to be Delivered in September 2013, Secondary Market

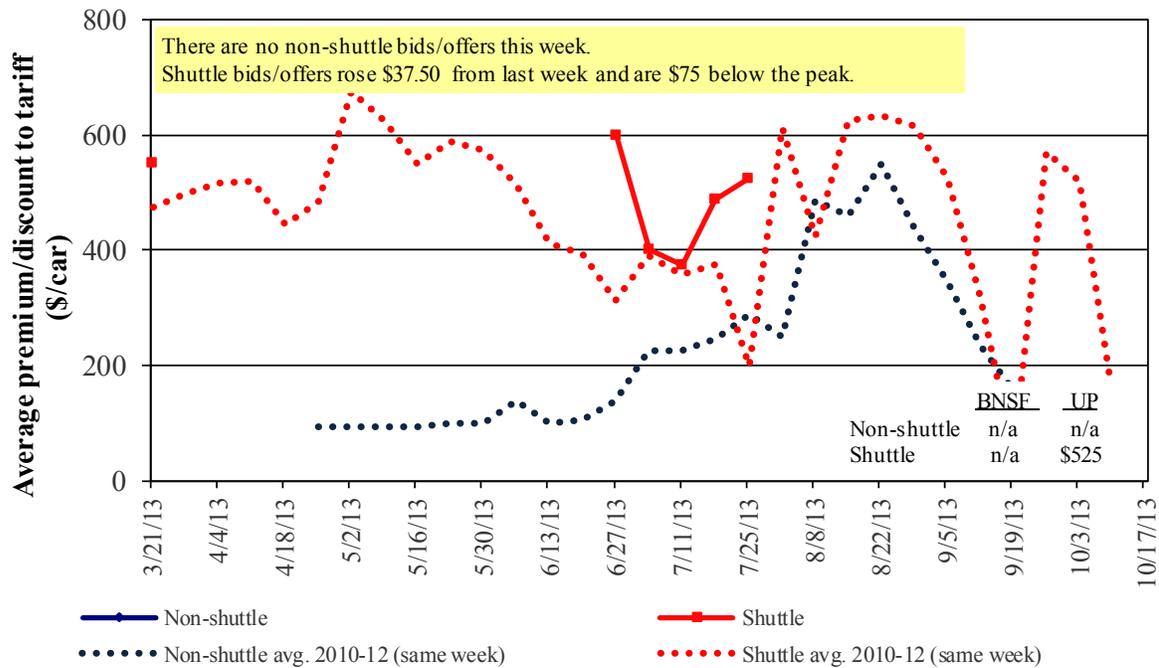


Non-shuttle bids include unit-train and single-car bids. n/a = not available.

Source: Transportation & Marketing Programs/AMS/USDA

Figure 6

Bids/Offers for Railcars to be Delivered in October 2013, Secondary Market



Non-shuttle bids include unit-train and single-car bids. n/a = not available.

Source: Transportation & Marketing Programs/AMS/USDA

Table 6

Weekly Secondary Railcar Market (\$/car)¹

Week ending	Delivery period					
	Aug-13	Sep-13	Oct-13	Nov-13	Dec-13	Jan-14
Non-shuttle						
BNSF-GF	8	n/a	n/a	n/a	n/a	n/a
Change from last week	n/a	n/a	n/a	n/a	n/a	n/a
Change from same week 2012	291	n/a	n/a	n/a	n/a	n/a
UP-Pool	-	n/a	n/a	n/a	n/a	n/a
Change from last week	-	n/a	n/a	n/a	n/a	n/a
Change from same week 2012	(40)	n/a	n/a	n/a	n/a	n/a
Shuttle²						
BNSF-GF	(63)	n/a	n/a	n/a	n/a	n/a
Change from last week	29	n/a	n/a	n/a	n/a	n/a
Change from same week 2012	175	n/a	n/a	n/a	n/a	n/a
UP-Pool	(213)	(225)	525	n/a	n/a	n/a
Change from last week	(13)	(25)	125	n/a	n/a	n/a
Change from same week 2012	112	-	325	n/a	n/a	n/a

¹Average premium/discount to tariff, \$/car-last week

²Shuttle bids are a new data series; prior to this we provided only non-shuttle rates.

Note: Bids listed are market INDICATORS only & are NOT guaranteed prices,

n/a = not available; GF = guaranteed freight; Pool = guaranteed pool

Sources: Transportation and Marketing Programs/AMS/USDA

Data from James B. Joiner Co., Tradewest Brokerage Co.

Table 7

Tariff Rail Rates for Unit and Shuttle Train Shipments¹

Effective date:				Fuel	Tariff plus surcharge per:		Percent
7/1/2013	Origin region*	Destination region*	rate/car	surcharge per car	metric ton	bushe ²	change Y/Y ³
Unit train							
Wheat	Wichita, KS	St. Louis, MO	\$3,191	\$182	\$33.50	\$0.91	1
	Grand Forks, ND	Duluth-Superior, MN	\$3,543	\$104	\$36.22	\$0.99	8
	Wichita, KS	Los Angeles, CA	\$6,244	\$536	\$67.32	\$1.83	3
	Wichita, KS	New Orleans, LA	\$3,808	\$320	\$41.00	\$1.12	4
	Sioux Falls, SD	Galveston-Houston, TX	\$5,824	\$440	\$62.20	\$1.69	4
	Northwest KS	Galveston-Houston, TX	\$4,076	\$351	\$43.96	\$1.20	3
	Amarillo, TX	Los Angeles, CA	\$4,275	\$489	\$47.30	\$1.29	3
Corn	Champaign-Urbana, IL	New Orleans, LA	\$3,110	\$362	\$34.48	\$0.88	43
	Toledo, OH	Raleigh, NC	\$4,508	\$407	\$48.81	\$1.24	2
	Des Moines, IA	Davenport, IA	\$2,006	\$77	\$20.68	\$0.53	3
	Indianapolis, IN	Atlanta, GA	\$3,920	\$306	\$41.96	\$1.07	2
	Indianapolis, IN	Knoxville, TN	\$3,354	\$196	\$35.25	\$0.90	2
	Des Moines, IA	Little Rock, AR	\$3,146	\$225	\$33.48	\$0.85	2
Soybeans	Des Moines, IA	Los Angeles, CA	\$5,065	\$656	\$56.82	\$1.44	1
	Minneapolis, MN	New Orleans, LA	\$3,319	\$395	\$36.88	\$1.00	1
	Toledo, OH	Huntsville, AL	\$3,575	\$289	\$38.37	\$1.04	2
	Indianapolis, IN	Raleigh, NC	\$4,578	\$410	\$49.53	\$1.35	2
	Indianapolis, IN	Huntsville, AL	\$3,267	\$196	\$34.39	\$0.94	2
Champaign-Urbana, IL	New Orleans, LA	\$3,599	\$362	\$39.34	\$1.07	5	
Shuttle Train							
Wheat	Great Falls, MT	Portland, OR	\$3,580	\$308	\$38.61	\$1.05	6
	Wichita, KS	Galveston-Houston, TX	\$3,798	\$240	\$40.10	\$1.09	4
	Chicago, IL	Albany, NY	\$3,771	\$382	\$41.24	\$1.12	3
	Grand Forks, ND	Portland, OR	\$5,061	\$532	\$55.54	\$1.51	4
	Grand Forks, ND	Galveston-Houston, TX	\$6,082	\$554	\$65.90	\$1.79	3
	Northwest KS	Portland, OR	\$5,043	\$576	\$55.80	\$1.52	2
Corn	Minneapolis, MN	Portland, OR	\$4,800	\$648	\$54.10	\$1.37	-1
	Sioux Falls, SD	Tacoma, WA	\$4,760	\$593	\$53.16	\$1.35	-1
	Champaign-Urbana, IL	New Orleans, LA	\$2,929	\$362	\$32.68	\$0.83	2
	Lincoln, NE	Galveston-Houston, TX	\$3,310	\$346	\$36.30	\$0.92	-1
	Des Moines, IA	Amarillo, TX	\$3,510	\$283	\$37.67	\$0.96	2
	Minneapolis, MN	Tacoma, WA	\$4,800	\$643	\$54.05	\$1.37	-1
Soybeans	Council Bluffs, IA	Stockton, CA	\$4,200	\$665	\$48.31	\$1.23	-1
	Sioux Falls, SD	Tacoma, WA	\$5,320	\$593	\$58.72	\$1.60	4
	Minneapolis, MN	Portland, OR	\$5,330	\$648	\$59.36	\$1.62	5
	Fargo, ND	Tacoma, WA	\$5,230	\$527	\$57.17	\$1.56	5
	Council Bluffs, IA	New Orleans, LA	\$3,950	\$418	\$43.37	\$1.18	5
	Toledo, OH	Huntsville, AL	\$2,750	\$289	\$30.18	\$0.82	2
Grand Island, NE	Portland, OR	\$4,960	\$589	\$55.11	\$1.50	4	

¹A unit train refers to shipments of at least 25 cars. Shuttle train rates are available for qualified shipments of

75-120 cars that meet railroad efficiency requirements.

²Approximate load per car = 111 short tons (100.7 metric tons): corn 56 lbs./bu., wheat & soybeans 60 lbs./bu.

³Percentage change year over year calculated using tariff rate plus fuel surcharge

Sources: www.bnsf.com, www.cpr.ca, www.csx.com, www.uprr.com

*Regional economic areas defined by the Bureau of Economic Analysis (BEA)

Table 8

Tariff Rail Rates for U.S. Bulk Grain Shipments to Mexico

Effective date: 7/1/2013

Commodity	Origin state	Destination region	Tariff rate/car ¹	Fuel		Percent change Y/Y ⁴	
				surcharge per car ²	Tariff plus surcharge per: metric ton ³ bushel ³		
Wheat	MT	Chihuahua, CI	\$6,262	\$563	\$69.73	\$1.90	-18
	OK	Cautitlan, EM	\$6,715	\$684	\$75.60	\$2.06	-2
	KS	Guadalajara, JA	\$8,293	\$660	\$91.48	\$2.49	10
	TX	Salinas Victoria, NL	\$2,872	\$258	\$31.97	\$0.87	-22
Corn	IA	Guadalajara, JA	\$7,699	\$777	\$86.60	\$2.20	-1
	SD	Celaya, GJ ⁵	\$7,356	\$736	\$82.69	\$2.10	n/a
	NE	Queretaro, QA	\$7,153	\$690	\$80.14	\$2.03	0
	SD	Salinas Victoria, NL	\$5,700	\$560	\$63.96	\$1.62	-1
	MO	Tlalnepantla, EM	\$6,592	\$670	\$74.20	\$1.88	0
	SD	Torreon, CU	\$6,522	\$617	\$72.94	\$1.85	0
Soybeans	MO	Bojay (Tula), HG	\$7,580	\$655	\$84.14	\$2.29	2
	NE	Guadalajara, JA	\$8,134	\$749	\$90.77	\$2.47	2
	IA	El Castillo, JA	\$8,555	\$732	\$94.89	\$2.58	3
	KS	Torreon, CU	\$6,651	\$465	\$72.71	\$1.98	3
Sorghum	TX	Guadalajara, JA	\$6,464	\$479	\$70.94	\$1.80	-3
	NE	Celaya, GJ ⁵	\$6,997	\$669	\$78.32	\$1.99	n/a
	KS	Queretaro, QA	\$6,815	\$420	\$73.92	\$1.88	5
	NE	Salinas Victoria, NL	\$5,438	\$492	\$60.58	\$1.54	5
	NE	Torreon, CU	\$6,153	\$549	\$68.48	\$1.74	1

¹Rates are based upon published tariff rates for high-capacity shuttle trains. Shuttle trains are available for qualified shipments of 75–110 cars that meet railroad efficiency requirements.

²Fuel surcharge adjusted to reflect the change in Ferrocarril Mexicano, S.A. de C.V. railroad fuel surcharge policy as of 10/01/2009

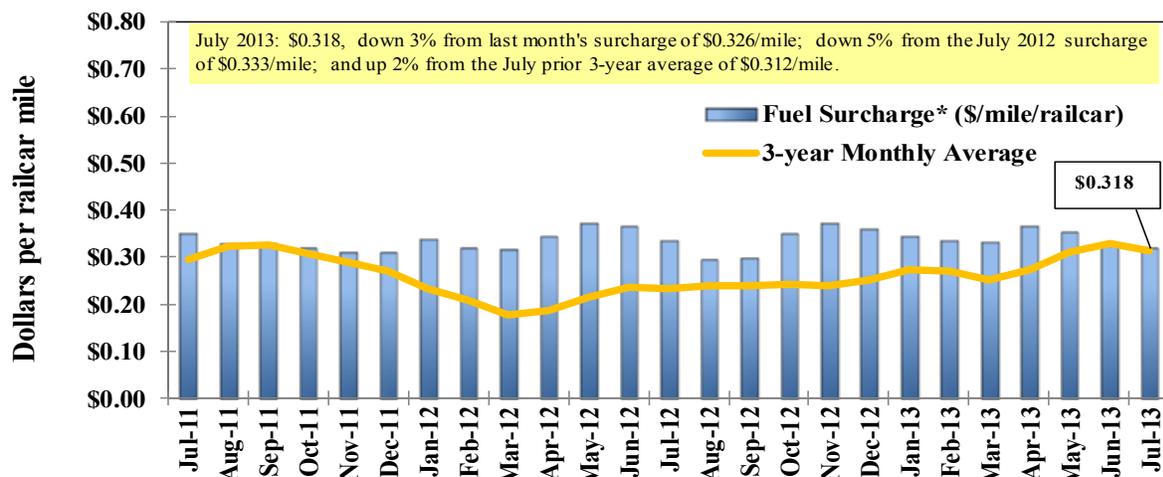
³Approximate load per car = 97.87 metric tons: Corn & Sorghum 56 lbs/bu, Wheat & Soybeans 60 lbs/bu

⁴Percentage change year over year calculated using tariff rate plus fuel surcharge

⁵Beginning 11/1/12, Celaya, GJ, replaced Penjamo, GJ, as the destination.

Sources: www.bnsf.com, www.uprr.com, www.kcsouthern.com

Figure 7

Railroad Fuel Surcharges, North American Weighted Average¹

¹ Weighted by each Class I railroad's proportion of grain traffic for the prior year.

* Mileage-based fuel surcharges for March and April 2007 are estimated. Beginning January 2009, the Canadian Pacific fuel surcharge is computed by a monthly average of the bi-weekly fuel surcharge.

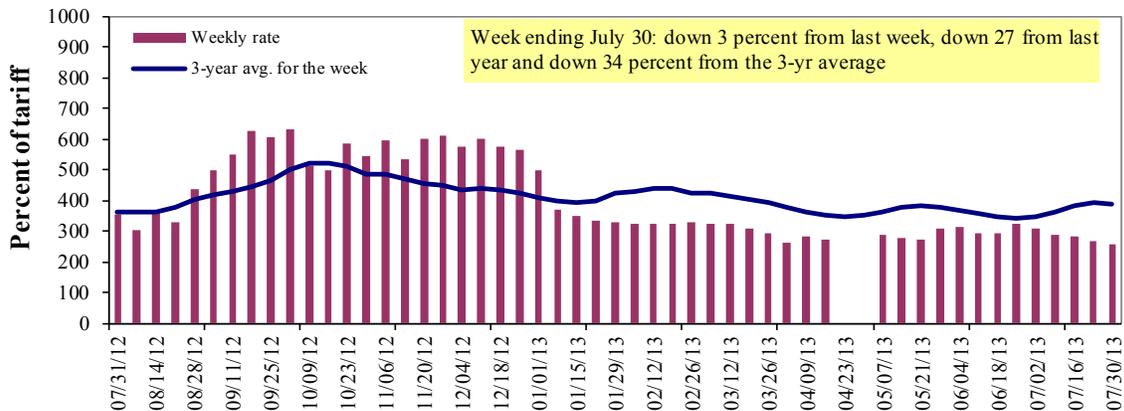
** BNSF strike price (diesel price when fuel surcharges begin) changed from \$1.25/gal. to \$2.50/gal. starting March 1, 2011. As a result, the weighted average fuel surcharge for March 2011 was \$0.227/mile instead of \$0.331/mile.

Sources: www.bnsf.com, www.cn.ca, www.cpr.ca, www.esx.com, www.kcsi.com, www.nscorp.com, www.uprr.com

Barge Transportation

Figure 8

Illinois River Barge Freight Rate^{1,2}



¹Rate = percent of 1976 tariff benchmark index (1976 = 100 percent); ²4-week moving average of the 3-year average.

Source: Transportation & Marketing Programs/AMS/USDA

Table 9

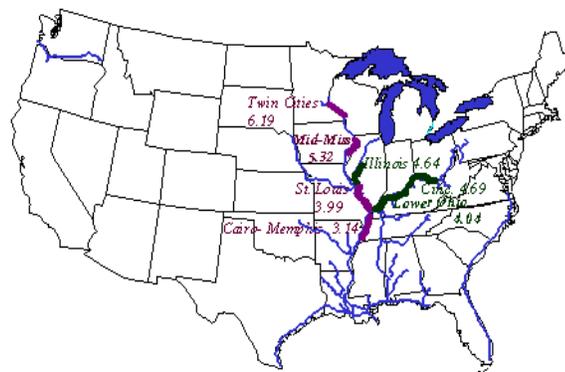
Weekly Barge Freight Rates: Southbound Only

		Twin Cities	Mid-Mississippi	Lower Illinois River	St. Louis	Cincinnati	Lower Ohio	Cairo-Memphis
Rate¹	7/30/2013	328	278	258	217	207	207	188
	7/23/2013	340	293	265	220	200	200	185
\$/ton	7/30/2013	20.30	14.79	11.97	8.66	9.71	8.36	5.90
	7/23/2013	21.05	15.59	12.30	8.78	9.38	8.08	5.81
Current week % change from the same week:								
	Last year	-26	-22	-27	-34	-38	-38	-40
	3-year avg. ²	-27	-26	-34	-31	-43	-43	-35
Rate¹	August	367	307	298	272	297	297	245
	October	595	558	558	512	565	565	467

¹Rate = percent of 1976 tariff benchmark index (1976 = 100 percent); ²4-week moving average; ton = 2,000 pounds

Source: Transportation & Marketing Programs/AMS/USDA

Figure 9
Benchmark tariff rates



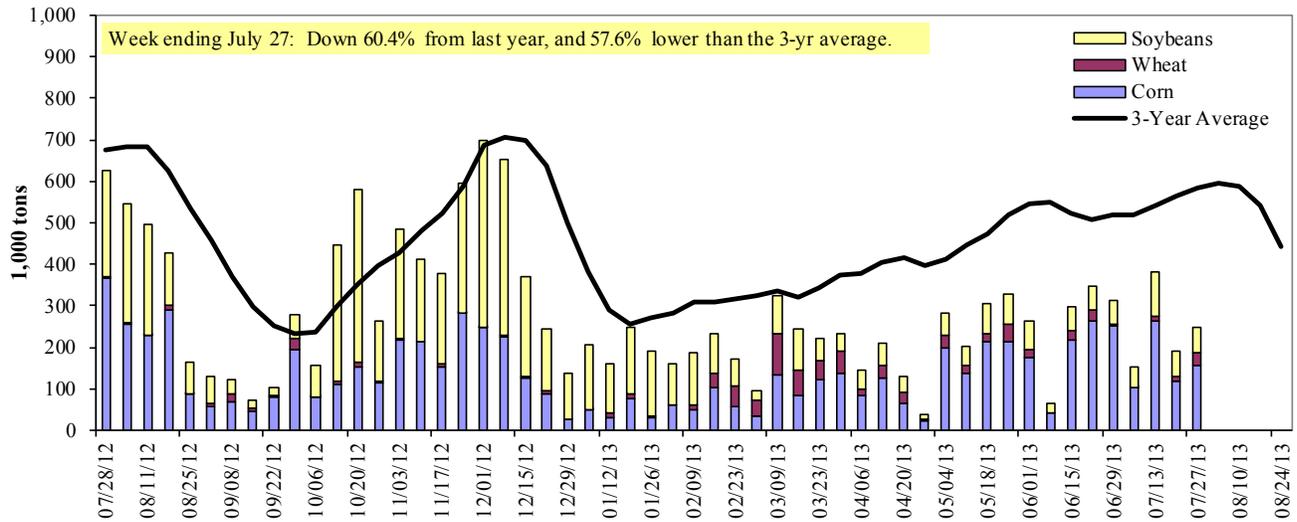
Calculating barge rate per ton:

(Index * 1976 tariff benchmark rate per ton)/100

Select applicable index from market quotes included in tables on this page. The 1976 benchmark rates per ton are provided in map (see figure 9).

Figure 10

Barge Movements on the Mississippi River¹ (Locks 27 - Granite City, IL)



¹ The 3-year average is a 4-week moving average.

Source: U.S. Army Corps of Engineers

Table 10

Barge Grain Movements (1,000 tons)

Week ending 7/27/2013	Corn	Wheat	Soybeans	Other	Total
Mississippi River					
Rock Island, IL (L15)	73	14	30	0	117
Winfield, MO (L25)	141	25	48	9	223
Alton, IL (L26)	161	38	66	9	274
Granite City, IL (L27)	158	27	63	9	257
Illinois River (L8)	22	5	15	0	42
Ohio River (L52)	33	80	9	5	126
Arkansas River (L1)	0	58	0	0	58
Weekly total - 2013	190	165	72	14	441
Weekly total - 2012	389	40	307	8	744
2013 YTD ¹	4,882	2,518	4,246	133	11,779
2012 YTD	10,575	1,205	6,152	184	18,115
2013 as % of 2012 YTD	46	209	69	72	65
Last 4 weeks as % of 2012 ²	63	40	36	59	74
Total 2012	14,837	1,794	12,663	229	29,523

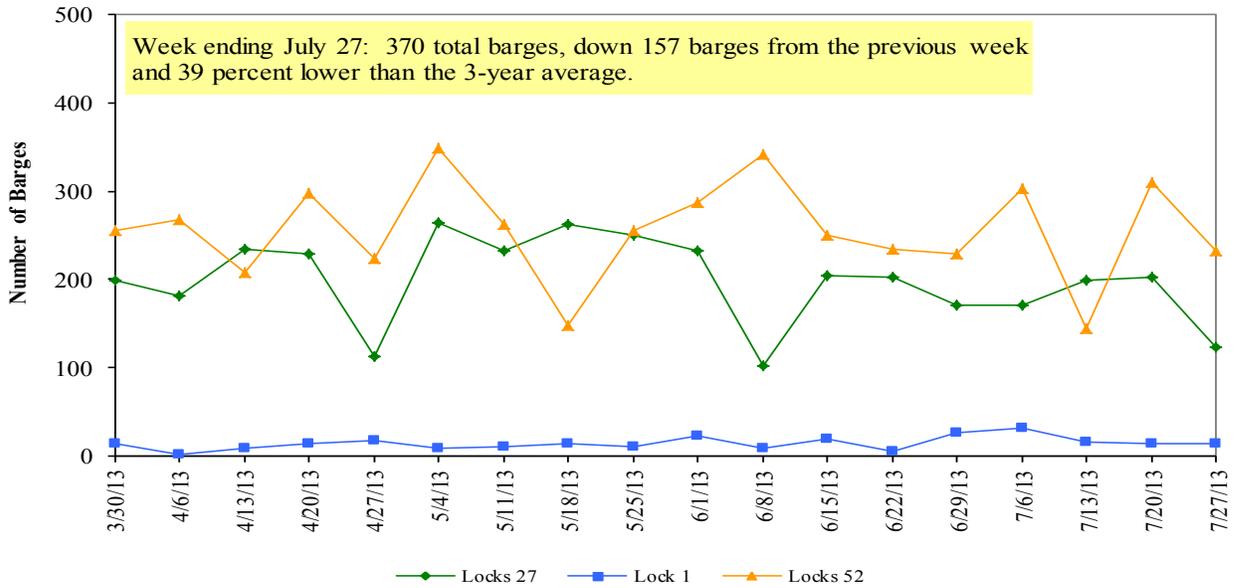
¹ Weekly total, YTD (year-to-date) and calendar year total includes Miss/27, Ohio/52, and Ark/1; "Other" refers to oats, barley, sorghum, and rye.

² As a percent of same period in 2012.

Note: Total may not add exactly, due to rounding

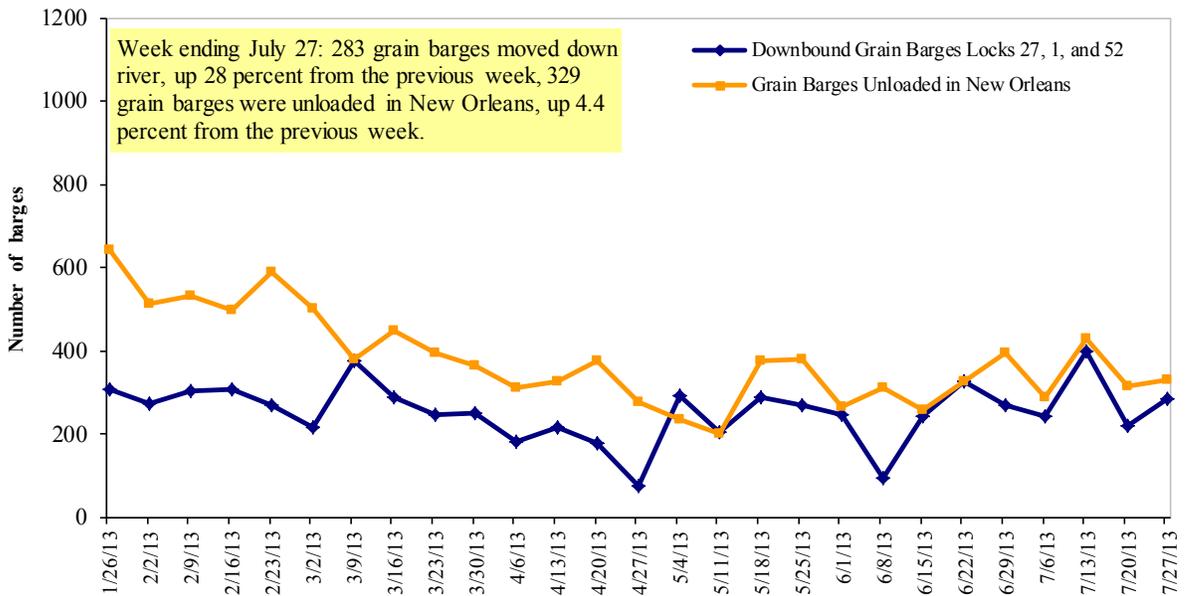
Source: U.S. Army Corps of Engineers

Figure 11
Upbound Empty Barges Transiting Mississippi River Locks 27, Arkansas River Lock and Dam 1, and Ohio River Locks and Dam 52



Source: U.S. Army Corps of Engineers

Figure 12
Grain Barges for Export in New Orleans Region



Source: U.S. Army Corps of Engineers and GIPSA

Truck Transportation

The **weekly diesel price** provides a proxy for trends in U.S. truck rates as diesel fuel is a significant expense for truck grain movements.

Table 11

Retail on-Highway Diesel Prices¹, Week Ending 7/29/2013 (US \$/gallon)

Region	Location	Price	Change from	
			Week ago	Year ago
I	East Coast	3.931	0.012	0.089
	New England	4.061	0.014	0.130
	Central Atlantic	3.993	0.022	0.085
	Lower Atlantic	3.861	0.004	0.086
II	Midwest ²	3.886	0.011	0.104
III	Gulf Coast ³	3.845	0.004	0.149
IV	Rocky Mountain	3.913	0.047	0.184
V	West Coast	4.052	0.011	0.154
	West Coast less California	3.970	0.014	0.154
	California	4.122	0.009	0.155
Total	U.S.	3.915	0.012	0.119

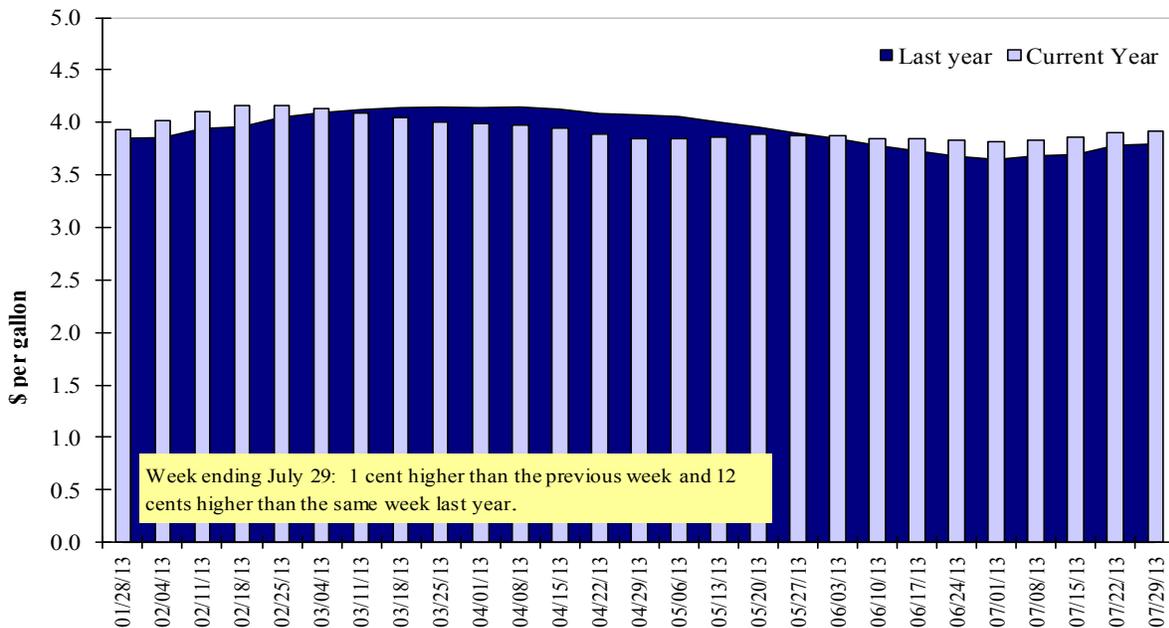
¹Diesel fuel prices include all taxes. Prices represent an average of all types of diesel fuel.

²Same as North Central ³Same as South Central

Source: Energy Information Administration/U.S. Department of Energy (www.eia.doe.gov)

Figure 13

Weekly Diesel Fuel Prices, U.S. Average



Source: Retail On-Highway Diesel Prices, Energy Information Administration, Dept. of Energy

Grain Exports

Table 12

U.S. Export Balances and Cumulative Exports (1,000 metric tons)

Week ending	Wheat						Corn	Soybeans	Total
	HRW	SRW	HRS	SWW	DUR	All wheat			
Export Balances¹									
7/18/2013	1,845	3,850	1,250	1,094	85	8,124	2,715	1,295	12,134
This week year ago	1,517	840	1,390	1,160	112	5,019	4,137	4,386	13,542
Cumulative exports-marketing year²									
2012/13 YTD	1,872	1,313	653	302	32	4,171	15,969	35,716	55,856
2011/12 YTD	1,676	544	729	408	57	3,383	34,998	33,904	72,285
YTD 2012/13 as % of 2011/12	112	241	90	74	n/a	123	46	105	77
Last 4 wks as % of same period 2011/12	127	401	93	90	76	154	73	30	89
2011/12 Total	9,904	4,319	6,312	5,601	491	26,627	37,900	36,727	101,254
2010/11 Total	15,837	2,828	8,623	4,717	979	32,984	44,569	39,753	117,306

¹ Current unshipped export sales to date

² Shipped export sales to date; new marketing year in effect for wheat

Note: YTD = year-to-date. Marketing Year: wheat = 6/01-5/31, corn & soybeans = 9/01-8/31

Source: Foreign Agricultural Service/USDA (www.fas.usda.gov)

Table 13

Top 5 Importers¹ of U.S. Corn

Week ending 07/18/2013	Total Commitments ²			% change current MY from last MY	Exports ³ 2011/12
	2013/14 Next MY	2012/13 Current MY	2011/12 Last MY		
	- 1,000 mt -				- 1,000 mt -
Japan	949	7,088	11,846	(40)	12,367
Mexico	1,556	4,414	9,544	(54)	9,617
China	2,750	2,480	5,202	(52)	5,414
Korea	3	418	3,739	(89)	3,639
Venezuela	0	1,080	1,186	(9)	1,332
Top 5 Importers	5,257	15,480	31,517	(51)	32,369
Total US corn export sales	7,990	18,685	39,135	(52)	39,180
% of Projected	25%	105%	100%		
Change from prior week	516	(28)	(9)		
Top 5 importers' share of U.S. corn export sales	66%	83%	81%		83%
USDA forecast, July 2013	31,750	17,780	39,180	(55)	
Corn Use for Ethanol USDA forecast, Ethanol July 2013	124,460	118,110	127,280	(7)	

(n) indicates negative number.

¹ Based on FAS Marketing Year Ranking Reports - www.fas.usda.gov; Marketing year (MY) = Sep 1 - Aug 31.

² Cumulative Exports (shipped) + Outstanding Sales (unshipped), FAS Weekly Export Sales Report, or Export Sales Query--
http://www.fas.usda.gov/esrquery/

³ FAS Marketing Year Final Reports - www.fas.usda.gov/export-sales/myfi_rpt.htm (Carry-over plus Accumulated Exports)

Table 14

Top 5 Importers¹ of U.S. Soybeans

Week Ending 07/18/2013	Total Commitments ²			% change current MY from last MY	Exports ³ 2011/12
	2013/14 Next MY	2012/13 Current MY	2011/12 Last MY		
	- 1,000 mt -				- 1,000 mt -
China	10,794	21,599	23,937	(10)	24,602
Mexico	330	2,586	3,168	(18)	3,180
Japan	155	1,807	1,785	1	1,891
Indonesia	47	1,614	1,529	6	1,741
Egypt	60	677	1,270	(47)	1,292
Top 5 importers	11,386	28,283	31,689	(11)	32,706
Total US soybean export sales	13,969	37,011	38,290	(3)	37,060
% of Projected	35%	102%	103%		
Change from prior week	665	128	193		
Top 5 importers' share of U.S. soybean export sales	82%	76%	83%		
USDA forecast, July 2013	39,460	36,200	37,060	(2)	

(n) indicates negative number.

¹Based on FAS Marketing Year Ranking Reports - www.fas.usda.gov; Marketing year (MY) = Sep 1 - Aug 31.²Cumulative Exports (shipped) + Outstanding Sales (unshipped), FAS Weekly Export Sales Report, or Export Sales Query--<http://www.fas.usda.gov/esrquery/>³FAS Marketing Year Final Reports - www.fas.usda.gov/export-sales/myfi_rpt.htm. (Carryover plus Accumulated Exports)

Table 15

Top 10 Importers¹ of All U.S. Wheat

Week Ending 07/18/2013	Total Commitments ²		% change current MY from last MY	Exports ³ 2012/13
	2013/14 Current MY	2012/13 Last MY		
	- 1,000 mt -			- 1,000 mt -
Japan	762	1,071	(29)	3,544
Nigeria	774	756	2	3,002
Mexico	1,154	1,183	(2)	2,761
Philippines	539	688	(22)	1,965
Egypt	131	58	125	1,678
Korea	307	494	(38)	1,385
Taiwan	216	340	(37)	1,038
China	3,450	339	917	743
Venezuela	237	314	(24)	631
Colombia	263	191	38	600
Top 10 importers	7,833	5,434	44	17,347
Total US wheat export sales	12,296	8,402	46	26,348
% of Projected	42%	31%		
Change from prior week	661	367		
Top 10 importers' share of U.S. wheat export sales	64%	65%		66%
USDA forecast, July 2013	29,260	27,490	6	

(n) indicates negative number.

¹Based on FAS Marketing Year Ranking Reports - www.fas.usda.gov; Marketing year = Jun 1 - May 31.²Cumulative Exports (shipped) + Outstanding Sales (unshipped), FAS Weekly Export Sales Report, or Export Sales Query--<http://www.fas.usda.gov/esrquery/>³FAS Marketing Year Final Reports - www.fas.usda.gov/export-sales/myfi_rpt.htm.

Table 16

Grain Inspections for Export by U.S. Port Region (1,000 metric tons)

Port regions	Week ending 07/25/13	Previous Week ¹	Current Week as % of Previous	2013 YTD ¹	2012 YTD ¹	2013 YTD as % of 2012 YTD	Last 4-weeks as % of		Total ¹ 2012
							2012	3-yr. avg.	
Pacific Northwest									
Wheat	190	198	96	6,465	7,474	86	114	100	12,625
Corn	10	0	n/a	1,321	4,587	29	5	4	5,512
Soybeans	0	0	n/a	3,696	5,267	70	0	0	10,347
Total	199	198	101	11,482	17,329	66	50	41	28,484
Mississippi Gulf									
Wheat	304	214	142	5,376	3,695	145	305	246	5,462
Corn	190	205	93	6,385	11,793	54	78	49	18,068
Soybeans	18	67	27	7,451	10,502	71	18	32	24,684
Total	511	485	105	19,212	25,990	74	80	73	48,215
Texas Gulf									
Wheat	171	183	93	5,020	3,684	136	154	129	5,912
Corn	0	0	n/a	126	295	43	n/a	0	336
Soybeans	0	0	n/a	122	5	n/a	n/a	0	626
Total	171	183	93	5,269	3,984	132	154	122	6,874
Interior									
Wheat	15	26	59	573	734	78	38	110	1,218
Corn	62	32	191	1,507	4,611	33	168	42	6,115
Soybeans	15	35	43	1,757	2,524	70	50	35	4,204
Total	92	93	99	3,837	7,869	49	110	47	11,538
Great Lakes									
Wheat	0	26	0	460	182	252	262	81	481
Corn	0	0	n/a	0	37	0	n/a	0	56
Soybeans	0	0	n/a	22	148	15	0	0	713
Total	0	26	0	482	368	131	81	53	1,250
Atlantic									
Wheat	12	7	167	429	232	185	329	398	341
Corn	0	0	n/a	2	96	2	0	0	143
Soybeans	1	1	35	0	582	0	3	6	1,460
Total	12	9	144	431	910	47	38	54	1,944
U.S. total from ports²									
Wheat	691	654	106	18,323	16,002	115	168	140	26,040
Corn	262	238	110	9,341	21,421	44	50	34	30,230
Soybeans	33	103	32	13,048	19,028	69	16	25	42,035
Total	986	994	99	40,712	56,451	72	74	65	98,305

¹ Data includes revisions from prior weeks; some regional totals may not add exactly due to rounding.

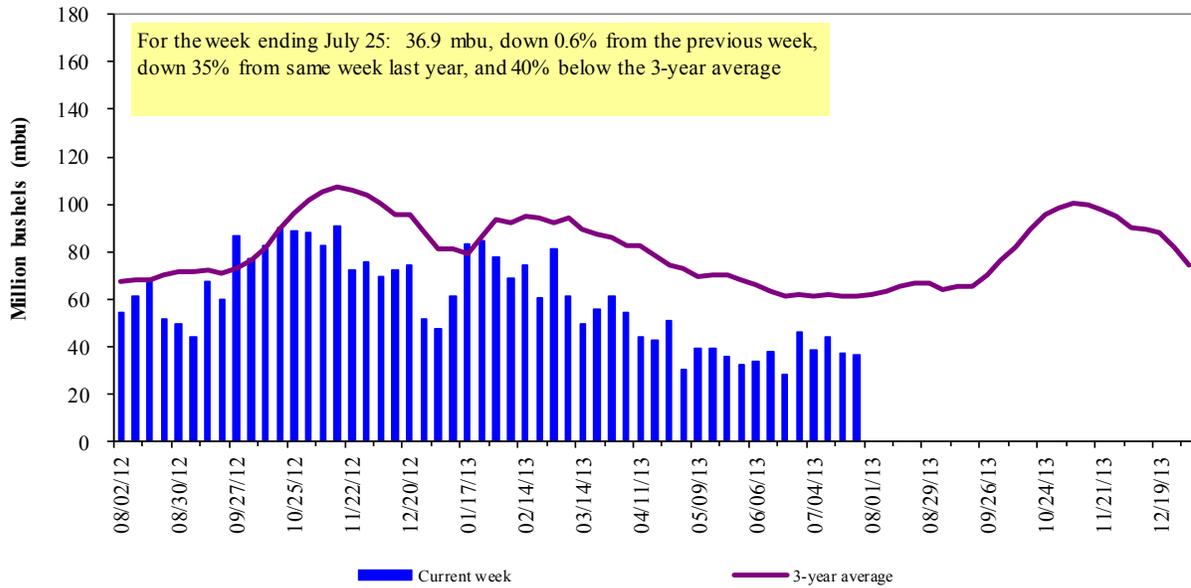
² Total includes only port regions shown above; Interior land-based shipments now included.

Source: Grain Inspection, Packers and Stockyards Administration/USDA (www.gipsa.usda.gov); YTD= year-to-date; n/a = not applicable

The United States exports approximately one-quarter of the grain it produces. On average, this includes nearly 45 percent of U.S.-grown wheat, 35 percent of U.S.-grown soybeans, and 20 percent of the U.S.-grown corn. Approximately 56 percent of the U.S. export grain shipments departed through the U.S. Gulf region in 2012.

Figure 14

U.S. grain inspected for export (wheat, corn, and soybeans)

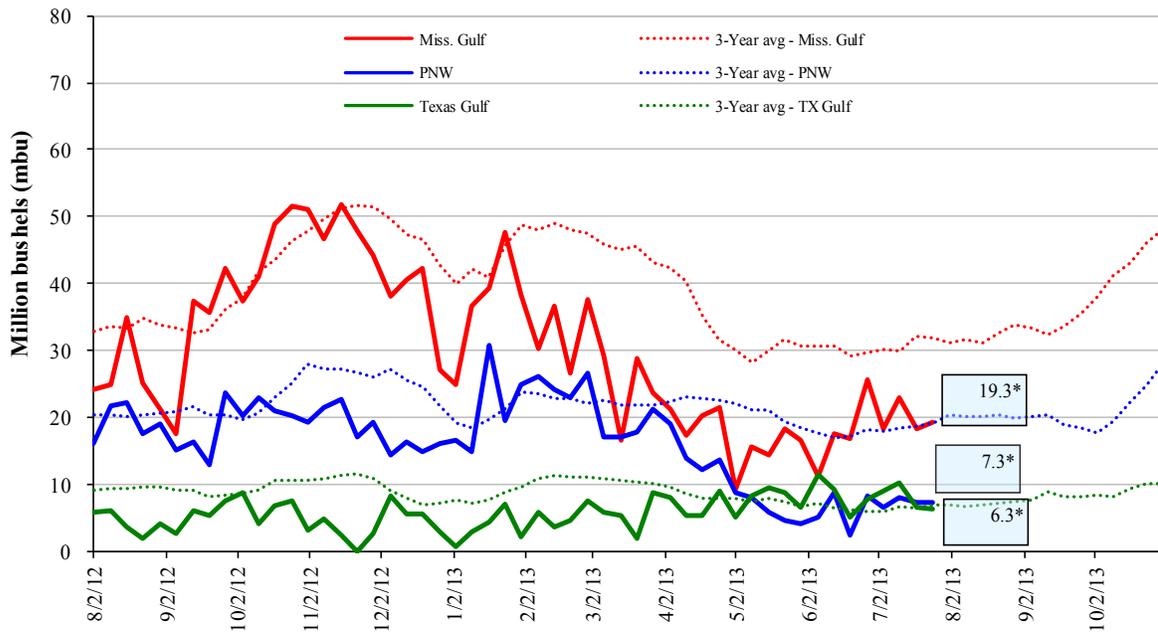


Source: Grain Inspection, Packers and Stockyards Administration/USDA (www.gipsa.usda.gov)

Note: 3-year average consists of 4-week running average

Figure 15

U.S. Grain Inspections: U.S. Gulf and PNW¹ (wheat, corn, and soybeans)



Source: Grain Inspection, Packers and Stockyards Administration/USDA (www.gipsa.usda.gov); *mbu, this week.

July 25 % change from:	MSGulf	TX Gulf	U.S. Gulf	PNW
Last week	down 20	down 35	down 25	down 9
Last year (same week)	down 28	up 142	down 11	down 33
3-yr avg. (4-wk mov. avg)	down 34	down 4	down 28	down 58

Ocean Transportation

Table 17

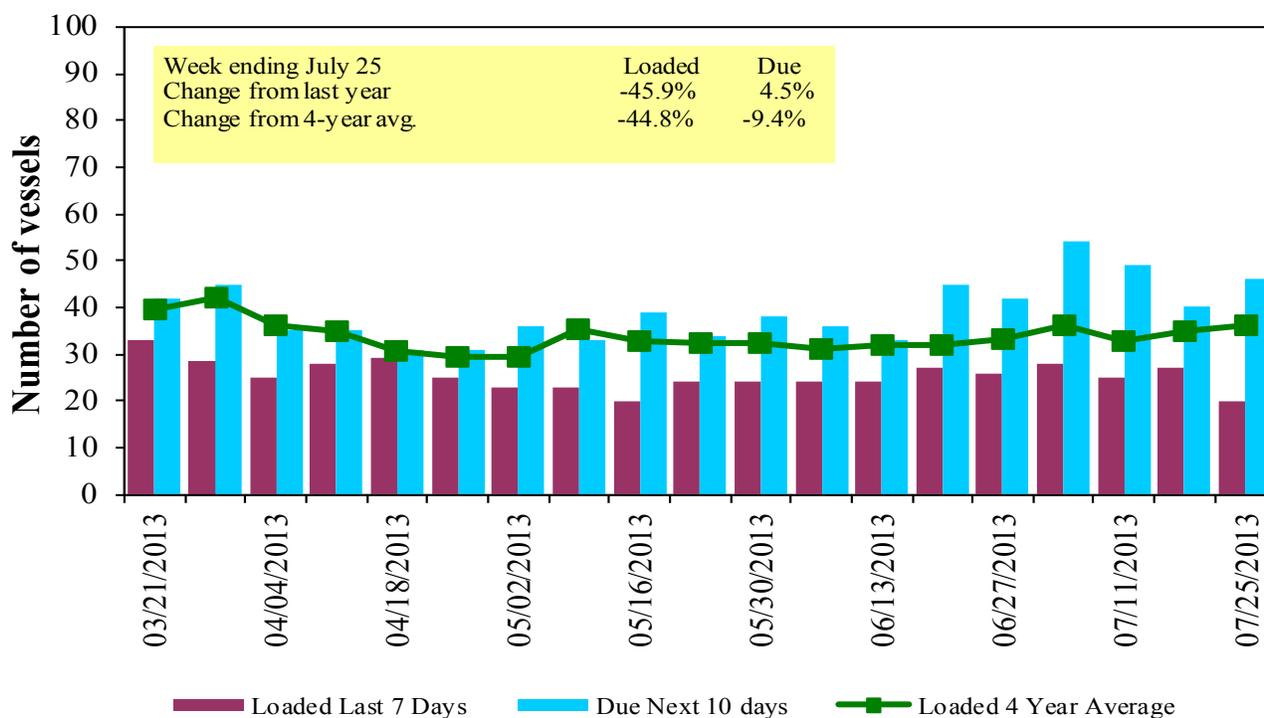
Weekly Port Region Grain Ocean Vessel Activity (number of vessels)

Date	Gulf			Pacific Northwest	Vancouver B.C.
	In port	Loaded 7-days	Due next 10-days	In port	In port
7/25/2013	29	20	46	5	n/a
7/18/2013	24	27	40	6	n/a
2012 range	(13..50)	(13..46)	(27..78)	(4..20)	n/a
2012 avg.	28	33	46	11	n/a

Source: Transportation & Marketing Programs/AMS/USDA

Figure 16

U.S. Gulf¹ Vessel Loading Activity

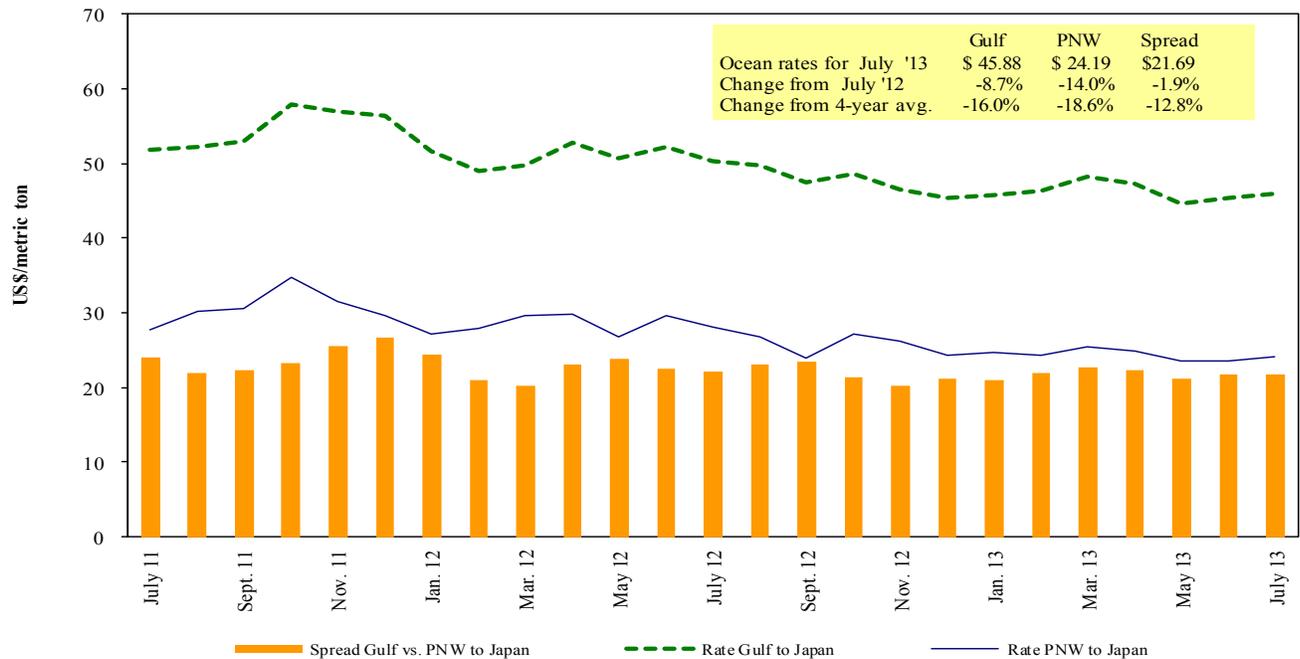


Source: Transportation & Marketing Programs/AMS/USDA

¹U.S. Gulf includes Mississippi, Texas, and East Gulf.

Figure 17

Grain Vessel Rates, U.S. to Japan



Source: O'Neil Commodity Consulting

Table 18

Ocean Freight Rates For Selected Shipments, Week Ending 07/27/2013

Export region	Import region	Grain types	Loading date	Volume loads (metric tons)	Freight rate (US\$/metric ton)
U.S. Gulf	China	Heavy Grain	Jul 10/20	55,000	42.00
U.S. Gulf	China	Heavy Grain	Oct 1/Dec 31	55,000	33.00
U.S. Gulf	China	Heavy Grain	Jun 1/3	55,000	41.00
PNW	Bangladesh ¹	Wheat	Jun 10/20	4,610	98.00
Brazil	China	Heavy Grain	Aug 1/15	60,000	34.75
Brazil	China	Heavy Grain	Jul 20/30	60,000	34.50
Brazil	China	Heavy Grain	Jul 1/10	60,000	34.00
Brazil	China	Heavy Grain	Jun 25/Jul 5	60,000	32.50
Brazil	China	Heavy Grain	June 25/30	60,000	32.50
Brazil	China	Heavy Grain	Jul 1/30	65,000	36.00
Brazil	China	Heavy Grain	Jun 20/30	60,000	37.00
Brazil	Portugal	Corn	Jul 12/29	60,000	21.50
France	Saudi Arabia	Barley	Aug 1/5	64,000	29.50
River Plate	China	Heavy Grain	Aug 1/10	60,000	39.50
River Plate	Egypt	Heavy Grain	Jul 1/10	50,000	33.00
Ukraine	Kenya	Wheat	July 19/24	35,000	36.50
Ukraine	Iran	Wheat	Jun 10/18	60,000	32.50

Rates shown are for metric ton (2,204.62 lbs. = 1 metric ton), F.O.B., except where otherwise indicates; op = option

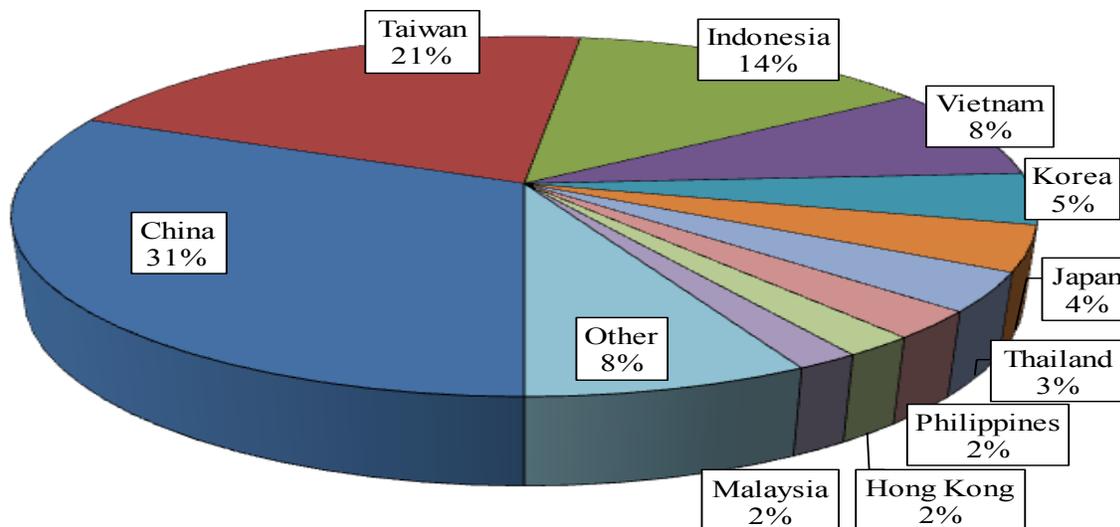
¹50 percent of food aid from the United States is required to be shipped on U.S.-flag vessels.

Source: Maritime Research Inc. (www.maritime-research.com)

In 2012, containers were used to transport 8 percent of total U.S. waterborne grain exports, up 1 percentage point from 2011. Approximately 66 percent of U.S. waterborne grain exports in 2012 went to Asia, of which 11 percent were moved in containers. Asia is the top destination for U.S. containerized grain exports—96 percent in 2012.

Figure 18

Top 10 Destination Markets for U.S. Containerized Grain Exports, April 2013

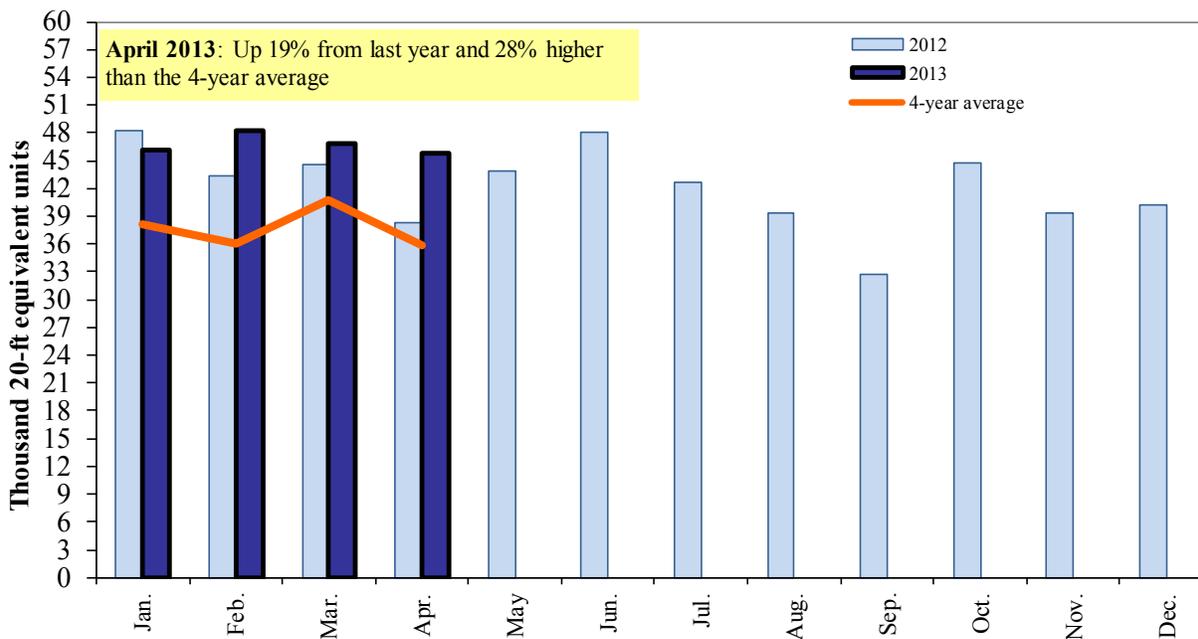


Source: USDA/Agricultural Marketing Service/Transportation Services Division analysis of Port Import Export Reporting Service (PIERS) data

Note: The following Harmonized Tariff Codes are used to calculate containerized grains movements: 100190, 100200, 100300, 100400, 100590, 100700, 110100, 230310, 110220, 110290, 120100, 230210, 230990, 230330, and 120810.

Figure 19

Monthly Shipments of Containerized Grain to Asia



Source: USDA/Agricultural Marketing Service/Transportation Services Division analysis of Port Import Export Reporting Service (PIERS) data

Note: The following Harmonized Tariff Codes are used to calculate containerized grains movements: 100190, 100200, 100300, 100400, 100590, 100700, 110100, 230310, 110220, 110290, 120100, 230210, 230990, 230330, and 120810.

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Preferred citation: U.S. Dept. of Agriculture, Agricultural Marketing Service. *Grain Transportation Report*. August 1, 2013. Web: <http://dx.doi.org/10.9752/TS056.08-01-2013>

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