

TO: Public/Agencies

CC:

FROM: GLMRIS Navigation and Economics Team

DATE: 10 April 2012

SUBJECT: Response to Public/Agency Comments – Commercial Cargo Report Call-in

The following is in response to questions and additional information requested during the Jan. 5, 2012 conference call pertaining to the release of the Baseline Assessment of Cargo Traffic on the Chicago Area Waterway System (CAWS). USACE thanks all parties for their review and suggestions for improvement of this interim product.

The following is a list of attendees who identified themselves during the call: Paul Roddy, Water Waste Council; Gary O’Keefe, GLMRIS Program Manager; Mark Kramer, GLMRIS Navigation and Economics Team Lead; David Wethington, GLMRIS Project Manager; Dale Kelz, Navigation Center of Expertise; Lynn Muench, American Waterway Operators; Bill Bolen, USEPA; Jack Carr, USACE – MVR; Joel Brammeier, Alliance for the Great Lakes; Janice Reed, HDR; Tom Maddish; Jennifer, WBEZ; Clark Bullard, Prairie Rivers Network; John Taylor, Wayne State University; and Jared Teutsch, Alliance for the Great Lakes

Questions & Responses

Q1. The report did not capture the compelled rates. Will the water compelled rates be studied?

A1. “Water compelled rates” are defined as the reduction in railway rates that occurs due to the presence of a competitive waterway. Water compelled rates will not be studied because they are a non-standard benefit category and are difficult to quantify. However, water rates, rail rates, and trucking rates are part of an overall rate analysis that is currently being conducted for the study. The final report will include information on rate sampling methodology as well as summary results including generalized commodity level water rates and rate savings.

Q2. Does the information on lakewise shipments include both barge and deep draft vessels?

A2. The lakewise traffic includes deep draft traffic, but only deep draft traffic that touches the CAWS (inbound to or outbound from).

Q3. Will you be performing a regional economic analysis?

A3. The Navigation and Economics Team will be performing an input/output analysis of the economic impacts to the region using the REMI model. The REMI model is a proprietary input-output model by Regional Economic Model, Inc (REMI).

Q4. Will you be looking at modal shifts?

A4. The study will be examining overland impacts and impacts from diverted traffic. The overland impacts are the impacts from diverted traffic.

Q5. Will the overland impact analysis include air emissions, increased fatalities, etc and the costs associated with those impacts?

A5. Yes.

Q6. What is the cost to operate the electric barrier?

A6. Approximately \$8 million per year, as of March 2012.

Q7. What are the mitigation measures?

A7. In GLMRIS, USACE will evaluate a range of technologies including hydrological separation. As part of this evaluation, USACE will identify various reasonable mitigation measures that could offset or alleviate the adverse impacts to various industries or services (navigation, flood risk management, water quality, environmental, etc.) as a result of project implementation.

Q8. How did USACE calculate the internal movements in this analysis?

A8. Dock to dock shipment information is collected by the USACE Waterborne Resource Support Center. Fields were added to the this database to identify whether a movement (a line in the database) originated at a CAWS dock or terminated at a CAWS dock. Internal traffic was the summation of traffic that both originated and terminated at CAWS docks.

Requests for Further Analysis:

R1. (Brammeier) Please provide a trend analysis for 2009 and 2010.

The data is enclosed in this correspondence.

R2. (Brammeier) Please provide a detail analysis of deep draft vessels.

The data is enclosed in this correspondence.

R3. (Muench) Please provide a trend analysis of the value of the commodity movement.

The data is enclosed in this correspondence.

R4. (Brammeier) Please provide an analysis of the CAWS' Origin-Destination and directionality information at a finer level of detail.

CAWS could be split into individual waterway segments and data could be presented at that level of detail. The request for additional finer level of detail is problematic as the Trade Secrets Act (Title 18, U.S. Code, Chapter 93, Section 1905) prevents Waterborne Commerce Statistics Center from releasing information that might cause a business competitive harm. Consequently any data released to the public must not reveal the business of a single vessel operator. The level of information requested would likely violate the Trade Secrets Act.

R5. (Bullard) Please provide an analysis of the CAWS traffic based on the shipment and receipts.

Through the shipment and receipt one could identify those that pass through intermodal points from origin-destination pairs. There is no information in the available databases that identifies intermodal transfer points specifically. This kind of an effort would require a dock-by-dock survey/analysis. The release of dock-by-dock information would violate the Trade Secrets Act.

R6. Please provide an analysis from 1979 to 2010. This would provide a clearer picture of the traffic trends. A time series of data from 1990 to 2010 can be provided without extraordinary additional effort.

There are two data sources for waterway traffic; the Lock Performance Monitoring System (LPMS) and the Waterborne Commerce Statistics (WCS) data compiled by the Water Resources Support Center. LPMS data is collected at each navigation project as traffic passes. This data is available back to 1976 when the data collection system was implemented. The more useful WCSC data, which collects dock to dock shipment flows and is available back to 1994 in database form. Prior to this data is available in PDF form in yearly Water Resources Support Center "Waterborne Commerce of the United States" publications (part 3). The study will be analyzing the current and potential future conditions of CAWS traffic. While historic trends may be a compelling study of the CAWS and its capacity to move commodities, it is of limited use for GLMRIS.

Chicago Area Waterways Traffic, Deep and Shallow Draft, 1990 - 2010

	Tons			Values		
	Deep	Shallow	Total	Deep	Shallow	Total
1990						
Coal	685,437	3,959,299	4,644,736	\$ 23,078,664	\$ 133,309,597	\$ 156,388,261
Petro	135,197	3,499,853	3,635,050	\$ 112,971,965	\$ 2,924,512,165	\$ 3,037,484,131
Aggregates	1,039,318	3,250,911	4,290,229	\$ 9,353,862	\$ 29,258,199	\$ 38,612,061
Grains	-	998,478	998,478	\$ -	\$ 209,760,258	\$ 209,760,258
Chemicals	-	2,094,558	2,094,558	\$ -	\$ 940,309,923	\$ 940,309,923
Ores & Minerals	38,924	1,107,993	1,146,917	\$ 2,922,025	\$ 83,177,035	\$ 86,099,059
Iron & Steel	692,803	2,330,455	3,023,258	\$ 40,875,377	\$ 137,496,845	\$ 178,372,222
Others	346,201	1,751,397	2,097,598	\$ 33,816,914	\$ 171,076,459	\$ 204,893,373
TOTAL	2,937,880	18,992,944	21,930,824	\$ 223,018,806	\$ 4,628,900,481	\$ 4,851,919,288
1991						
Coal	870,518	4,166,535	5,037,053	\$ 29,310,341	\$ 140,287,233	\$ 169,597,575
Petro	545,067	4,165,388	4,710,455	\$ 455,463,436	\$ 3,480,639,867	\$ 3,936,103,303
Aggregates	1,024,829	2,399,809	3,424,638	\$ 9,223,461	\$ 21,598,281	\$ 30,821,742
Grains	35	1,402,610	1,402,645	\$ 7,353	\$ 294,660,309	\$ 294,667,662
Chemicals	212,211	2,072,144	2,284,355	\$ 95,267,884	\$ 930,247,606	\$ 1,025,515,490
Ores & Minerals	212,647	1,158,542	1,371,189	\$ 15,963,410	\$ 86,971,748	\$ 102,935,158
Iron & Steel	1,608,792	2,133,841	3,742,633	\$ 94,918,728	\$ 125,896,619	\$ 220,815,347
Others	336,916	1,491,771	1,828,687	\$ 32,909,955	\$ 145,716,191	\$ 178,626,146
TOTAL	4,811,015	18,990,640	23,801,655	\$ 733,064,568	\$ 5,226,017,854	\$ 5,959,082,422
1992						
Coal	966,613	4,473,545	5,440,158	\$ 32,545,860	\$ 150,624,260	\$ 183,170,120
Petro	732,811	4,034,781	4,767,592	\$ 612,344,200	\$ 3,371,503,351	\$ 3,983,847,551
Aggregates	984,439	2,176,886	3,161,325	\$ 8,859,951	\$ 19,591,974	\$ 28,451,925
Grains	218,214	1,302,192	1,520,406	\$ 45,842,397	\$ 273,564,495	\$ 319,406,892
Chemicals	198,247	1,918,109	2,116,356	\$ 88,999,026	\$ 861,096,673	\$ 950,095,699
Ores & Minerals	478,403	745,586	1,223,989	\$ 35,913,713	\$ 55,971,141	\$ 91,884,854
Iron & Steel	1,741,499	1,956,410	3,697,909	\$ 102,748,441	\$ 115,428,190	\$ 218,176,631
Others	420,238	1,754,676	2,174,914	\$ 41,048,848	\$ 171,396,752	\$ 212,445,600
TOTAL	5,740,464	18,362,185	24,102,649	\$ 968,302,435	\$ 5,019,176,837	\$ 5,987,479,272
1993						
Coal	1,388,631	5,369,106	6,757,737	\$ 46,755,206	\$ 180,777,799	\$ 227,533,005
Petro	244,643	3,516,238	3,760,881	\$ 204,426,137	\$ 2,938,203,635	\$ 3,142,629,772
Aggregates	988,274	2,382,785	3,371,059	\$ 8,894,466	\$ 21,445,065	\$ 30,339,531
Grains	554,709	1,464,846	2,019,555	\$ 116,533,267	\$ 307,734,848	\$ 424,268,114
Chemicals	172,397	1,794,209	1,966,606	\$ 77,394,185	\$ 805,474,246	\$ 882,868,432
Ores & Minerals	715,071	969,656	1,684,727	\$ 53,680,380	\$ 72,792,076	\$ 126,472,456
Iron & Steel	2,979,932	2,350,731	5,330,663	\$ 175,815,988	\$ 138,693,129	\$ 314,509,117
Others	593,008	1,321,742	1,914,750	\$ 57,925,021	\$ 129,107,759	\$ 187,032,780
TOTAL	7,636,665	19,169,313	26,805,978	\$ 741,424,650	\$ 4,594,228,557	\$ 5,335,653,207
1994						
Coal	2,047,062	5,945,250	7,992,312	\$ 68,924,578	\$ 200,176,568	\$ 269,101,145
Petro	258,914	4,360,018	4,618,932	\$ 216,351,128	\$ 3,643,274,641	\$ 3,859,625,769
Aggregates	1,140,239	3,532,227	4,672,466	\$ 10,262,151	\$ 31,790,043	\$ 42,052,194
Grains	51,888	1,597,222	1,649,110	\$ 10,900,631	\$ 335,544,398	\$ 346,445,029
Chemicals	154,410	1,964,745	2,119,155	\$ 69,319,281	\$ 882,032,973	\$ 951,352,254
Ores & Minerals	518,465	1,329,347	1,847,812	\$ 38,921,168	\$ 99,794,079	\$ 138,715,247
Iron & Steel	3,797,335	4,173,105	7,970,440	\$ 224,042,765	\$ 246,213,195	\$ 470,255,960
Others	542,121	1,695,851	2,237,972	\$ 52,954,379	\$ 165,650,726	\$ 218,605,105
TOTAL	8,510,434	24,597,765	33,108,199	\$ 691,676,080	\$ 5,604,476,622	\$ 6,296,152,702
1995						
Coal	2,969,663	5,666,486	8,636,149	\$ 99,988,553	\$ 190,790,584	\$ 290,779,137
Petro	428,393	3,213,889	3,642,282	\$ 357,969,475	\$ 2,685,557,787	\$ 3,043,527,262
Aggregates	1,250,770	1,895,689	3,146,459	\$ 11,256,930	\$ 17,061,201	\$ 28,318,131
Grains	499,067	917,655	1,416,722	\$ 104,843,995	\$ 192,780,962	\$ 297,624,958
Chemicals	87,196	1,747,515	1,834,711	\$ 39,144,900	\$ 784,511,909	\$ 823,656,809
Ores & Minerals	285,813	1,174,018	1,459,831	\$ 21,455,982	\$ 88,133,531	\$ 109,589,513
Iron & Steel	3,059,305	3,621,758	6,681,063	\$ 180,498,995	\$ 213,683,722	\$ 394,182,717
Others	534,113	1,466,871	2,000,984	\$ 52,172,158	\$ 143,283,959	\$ 195,456,117
TOTAL	9,114,320	19,703,881	28,818,201	\$ 867,330,988	\$ 4,315,803,656	\$ 5,183,134,644
1996						
Coal	4,075,459	6,428,718	10,504,177	\$ 137,220,705	\$ 216,454,935	\$ 353,675,640
Petro	397,134	3,826,574	4,223,708	\$ 331,849,142	\$ 3,197,523,500	\$ 3,529,372,642
Aggregates	861,453	2,544,433	3,405,886	\$ 7,753,077	\$ 22,899,897	\$ 30,652,974
Grains	476,781	794,016	1,270,797	\$ 100,162,152	\$ 166,806,881	\$ 266,969,034
Chemicals	67,724	1,943,422	2,011,146	\$ 30,403,335	\$ 872,460,438	\$ 902,863,774
Ores & Minerals	694,926	1,161,964	1,856,890	\$ 52,168,095	\$ 87,228,637	\$ 139,396,732
Iron & Steel	3,945,544	2,543,364	6,488,908	\$ 232,787,096	\$ 150,058,476	\$ 382,845,572
Others	521,696	1,250,054	1,771,750	\$ 50,959,265	\$ 122,105,275	\$ 173,064,540
TOTAL	11,040,717	20,492,545	31,533,262	\$ 943,302,867	\$ 4,835,538,040	\$ 5,778,840,907

Chicago Area Waterways Traffic, Deep and Shallow Draft, 1990 - 2010

	Tons			Values		
	Deep	Shallow	Total	Deep	Shallow	Total
1997						
Coal	2,332,369	3,567,856	5,900,225	\$ 78,530,864	\$ 120,129,712	\$ 198,660,576
Petro	629,628	4,250,312	4,879,940	\$ 526,123,453	\$ 3,551,603,210	\$ 4,077,726,663
Aggregates	1,055,237	2,235,169	3,290,406	\$ 9,497,133	\$ 20,116,521	\$ 29,613,654
Grains	171,803	767,118	938,921	\$ 36,092,374	\$ 161,156,149	\$ 197,248,524
Chemicals	108,831	1,927,505	2,036,336	\$ 48,857,501	\$ 865,314,820	\$ 914,172,320
Ores & Minerals	679,507	1,400,899	2,080,406	\$ 51,010,590	\$ 105,165,488	\$ 156,176,078
Iron & Steel	2,935,217	3,058,153	5,993,370	\$ 173,177,803	\$ 180,431,027	\$ 353,608,830
Others	649,519	1,693,073	2,342,592	\$ 63,445,016	\$ 165,379,371	\$ 228,824,387
TOTAL	8,562,111	18,900,085	27,462,196	\$ 986,734,735	\$ 5,169,296,298	\$ 6,156,031,032
1998						
Coal	1,951,506	1,822,701	3,774,207	\$ 65,707,207	\$ 61,370,343	\$ 127,077,550
Petro	668,371	4,215,650	4,884,021	\$ 558,497,491	\$ 3,522,639,297	\$ 4,081,136,788
Aggregates	1,333,599	2,947,903	4,281,502	\$ 12,002,391	\$ 26,531,127	\$ 38,533,518
Grains	101,811	1,124,205	1,226,016	\$ 21,388,455	\$ 236,172,986	\$ 257,561,441
Chemicals	139,348	1,973,588	2,112,936	\$ 62,557,498	\$ 886,002,861	\$ 948,560,358
Ores & Minerals	1,210,620	991,578	2,202,198	\$ 90,881,243	\$ 74,437,760	\$ 165,319,004
Iron & Steel	3,950,317	3,343,304	7,293,621	\$ 233,068,703	\$ 197,254,936	\$ 430,323,639
Others	511,526	1,766,332	2,277,858	\$ 49,965,860	\$ 172,535,310	\$ 222,501,169
TOTAL	9,867,098	18,185,261	28,052,359	\$ 1,094,068,848	\$ 5,176,944,620	\$ 6,271,013,468
1999						
Coal	2,379,172	1,547,677	3,926,849	\$ 80,106,721	\$ 52,110,285	\$ 132,217,006
Petro	453,020	3,838,654	4,291,674	\$ 378,548,042	\$ 3,207,617,669	\$ 3,586,165,711
Aggregates	1,157,530	3,564,559	4,722,089	\$ 10,417,770	\$ 32,081,031	\$ 42,498,801
Grains	332,577	774,603	1,107,180	\$ 69,867,776	\$ 162,728,598	\$ 232,596,374
Chemicals	125,437	1,895,862	2,021,299	\$ 56,312,432	\$ 851,109,328	\$ 907,421,760
Ores & Minerals	1,019,737	752,190	1,771,927	\$ 76,551,657	\$ 56,466,903	\$ 133,018,560
Iron & Steel	4,360,714	3,068,357	7,429,071	\$ 257,282,126	\$ 181,033,063	\$ 438,315,189
Others	477,622	2,058,335	2,535,957	\$ 46,654,117	\$ 201,058,163	\$ 247,712,280
TOTAL	10,305,809	17,500,237	27,806,046	\$ 975,740,642	\$ 4,744,205,040	\$ 5,719,945,681
2000						
Coal	2,134,374	1,683,043	3,817,417	\$ 71,864,373	\$ 56,668,058	\$ 128,532,430
Petro	558,746	3,551,920	4,110,666	\$ 466,893,745	\$ 2,968,019,871	\$ 3,434,913,616
Aggregates	1,085,528	3,615,572	4,701,100	\$ 9,769,752	\$ 32,540,148	\$ 42,309,900
Grains	53,709	753,341	807,050	\$ 11,283,187	\$ 158,261,877	\$ 169,545,064
Chemicals	135,558	2,004,528	2,140,086	\$ 60,856,053	\$ 899,892,755	\$ 960,748,808
Ores & Minerals	861,347	749,782	1,611,129	\$ 64,661,319	\$ 56,286,135	\$ 120,947,454
Iron & Steel	2,388,146	3,623,250	6,011,396	\$ 140,900,614	\$ 213,771,750	\$ 354,672,364
Others	680,134	2,001,473	2,681,607	\$ 66,435,489	\$ 195,503,883	\$ 261,939,372
TOTAL	7,897,542	17,982,909	25,880,451	\$ 892,664,532	\$ 4,580,944,477	\$ 5,473,609,008
2001						
Coal	2,387,221	1,426,564	3,813,785	\$ 80,377,731	\$ 48,032,410	\$ 128,410,141
Petro	617,831	3,363,045	3,980,876	\$ 516,265,762	\$ 2,810,194,032	\$ 3,326,459,794
Aggregates	1,106,808	4,173,052	5,279,860	\$ 9,961,272	\$ 37,557,468	\$ 47,518,740
Grains	82,552	737,776	820,328	\$ 17,342,524	\$ 154,991,982	\$ 172,334,506
Chemicals	105,669	1,727,055	1,832,724	\$ 47,437,984	\$ 775,326,801	\$ 822,764,785
Ores & Minerals	1,074,343	993,076	2,067,419	\$ 80,650,929	\$ 74,550,215	\$ 155,201,144
Iron & Steel	844,716	2,468,662	3,313,378	\$ 49,838,244	\$ 145,651,058	\$ 195,489,302
Others	484,379	2,015,539	2,499,918	\$ 47,314,141	\$ 196,877,850	\$ 244,191,990
TOTAL	6,703,519	16,904,769	23,608,288	\$ 849,188,587	\$ 4,243,181,816	\$ 5,092,370,403
2002						
Coal	2,458,356	978,446	3,436,802	\$ 82,772,847	\$ 32,944,277	\$ 115,717,123
Petro	520,105	3,137,536	3,657,641	\$ 434,604,939	\$ 2,621,756,457	\$ 3,056,361,396
Aggregates	1,052,781	4,083,700	5,136,481	\$ 9,475,029	\$ 36,753,300	\$ 46,228,329
Grains	177,966	1,004,082	1,182,048	\$ 37,387,097	\$ 210,937,547	\$ 248,324,644
Chemicals	123,410	1,744,859	1,868,269	\$ 55,402,451	\$ 783,319,551	\$ 838,722,002
Ores & Minerals	469,420	918,931	1,388,351	\$ 35,239,359	\$ 68,984,150	\$ 104,223,510
Iron & Steel	537,170	3,391,383	3,928,553	\$ 31,693,030	\$ 200,091,597	\$ 231,784,627
Others	485,725	1,801,737	2,287,462	\$ 47,445,618	\$ 175,993,670	\$ 223,439,288
TOTAL	5,824,933	17,060,674	22,885,607	\$ 734,020,371	\$ 4,130,780,549	\$ 4,864,800,919
2003						
Coal	2,700,801	3,454,505	6,155,306	\$ 90,935,970	\$ 116,313,183	\$ 207,249,153
Petro	358,831	3,241,746	3,600,577	\$ 299,842,772	\$ 2,708,835,375	\$ 3,008,678,147
Aggregates	723,103	4,432,875	5,155,978	\$ 6,507,927	\$ 39,895,875	\$ 46,403,802
Grains	13,949	762,816	776,765	\$ 2,930,406	\$ 160,252,385	\$ 163,182,791
Chemicals	64,700	1,720,233	1,784,933	\$ 29,045,771	\$ 772,264,201	\$ 801,309,972
Ores & Minerals	659,917	687,448	1,347,365	\$ 49,539,969	\$ 51,606,721	\$ 101,146,691
Iron & Steel	425,917	3,462,820	3,888,737	\$ 25,129,103	\$ 204,306,380	\$ 229,435,483
Others	818,435	1,702,104	2,520,539	\$ 79,944,731	\$ 166,261,519	\$ 246,206,250
TOTAL	5,765,653	19,464,547	25,230,200	\$ 583,876,648	\$ 4,219,735,639	\$ 4,803,612,288

Chicago Area Waterways Traffic, Deep and Shallow Draft, 1990 - 2010

	Tons			Values		
	Deep	Shallow	Total	Deep	Shallow	Total
2004						
Coal	3,908,313	3,681,643	7,589,956	\$ 131,592,899	\$ 123,960,920	\$ 255,553,819
Petro	524,971	3,648,022	4,172,993	\$ 438,671,017	\$ 3,048,323,663	\$ 3,486,994,681
Aggregates	940,616	3,750,888	4,691,504	\$ 8,465,544	\$ 33,757,992	\$ 42,223,536
Grains	50,723	799,582	850,305	\$ 10,655,888	\$ 167,976,187	\$ 178,632,074
Chemicals	166,362	1,448,435	1,614,797	\$ 74,684,893	\$ 650,245,925	\$ 724,930,817
Ores & Minerals	1,131,801	998,717	2,130,518	\$ 84,964,301	\$ 74,973,685	\$ 159,937,986
Iron & Steel	749,255	3,992,494	4,741,749	\$ 44,206,045	\$ 235,557,146	\$ 279,763,191
Others	545,204	2,252,989	2,798,193	\$ 53,255,527	\$ 220,071,966	\$ 273,327,492
TOTAL	8,017,245	20,572,770	28,590,015	\$ 846,496,113	\$ 4,554,867,483	\$ 5,401,363,596
2005						
Coal	4,226,291	3,567,651	7,793,942	\$ 142,299,218	\$ 120,122,809	\$ 262,422,027
Petro	403,097	4,010,214	4,413,311	\$ 336,831,884	\$ 3,350,974,921	\$ 3,687,806,805
Aggregates	723,481	4,148,081	4,871,562	\$ 6,511,329	\$ 37,332,729	\$ 43,844,058
Grains	131,313	680,468	811,781	\$ 27,586,235	\$ 142,952,717	\$ 170,538,952
Chemicals	54,778	1,317,473	1,372,251	\$ 24,591,488	\$ 591,453,154	\$ 616,044,641
Ores & Minerals	805,227	956,819	1,762,046	\$ 60,448,391	\$ 71,828,402	\$ 132,276,793
Iron & Steel	593,689	4,123,327	4,717,016	\$ 35,027,651	\$ 243,276,293	\$ 278,303,944
Others	716,258	2,242,758	2,959,016	\$ 69,964,081	\$ 219,072,601	\$ 289,036,683
TOTAL	7,654,134	21,046,791	28,700,925	\$ 703,260,277	\$ 4,777,013,627	\$ 5,480,273,904
2006						
Coal	3,515,423	3,802,825	7,318,248	\$ 118,364,292	\$ 128,041,118	\$ 246,405,410
Petro	1,056,143	3,401,545	4,457,688	\$ 882,523,652	\$ 2,842,365,017	\$ 3,724,888,670
Aggregates	1,308,084	4,375,128	5,683,212	\$ 11,772,756	\$ 39,376,152	\$ 51,148,908
Grains	374,760	293,178	667,938	\$ 78,729,581	\$ 61,590,834	\$ 140,320,415
Chemicals	9,258	1,559,161	1,568,419	\$ 4,156,194	\$ 699,954,148	\$ 704,110,342
Ores & Minerals	894,434	930,213	1,824,647	\$ 67,145,160	\$ 69,831,090	\$ 136,976,250
Iron & Steel	722,769	3,754,337	4,477,106	\$ 42,643,371	\$ 221,505,883	\$ 264,149,254
Others	1,094,328	1,810,138	2,904,466	\$ 106,893,959	\$ 176,814,280	\$ 283,708,239
TOTAL	8,975,199	19,926,525	28,901,724	\$ 1,312,228,966	\$ 4,239,478,522	\$ 5,551,707,488
2007						
Coal	3,438,420	3,018,361	6,456,781	\$ 115,771,601	\$ 101,628,215	\$ 217,399,816
Petro	798,784	3,749,949	4,548,733	\$ 667,471,898	\$ 3,133,494,884	\$ 3,800,966,782
Aggregates	1,282,475	3,339,805	4,622,280	\$ 11,542,275	\$ 30,058,245	\$ 41,600,520
Grains	98,628	365,458	464,086	\$ 20,719,770	\$ 76,775,417	\$ 97,495,187
Chemicals	73,141	1,587,268	1,660,409	\$ 32,835,189	\$ 712,572,223	\$ 745,407,412
Ores & Minerals	1,022,714	645,393	1,668,107	\$ 76,775,140	\$ 48,449,653	\$ 125,224,792
Iron & Steel	1,233,877	2,734,446	3,968,323	\$ 72,798,743	\$ 161,332,314	\$ 234,131,057
Others	1,419,939	1,488,558	2,908,497	\$ 138,699,642	\$ 145,402,345	\$ 284,101,987
TOTAL	9,367,978	16,929,238	26,297,216	\$ 1,136,614,259	\$ 4,409,713,296	\$ 5,546,327,554
2008						
Coal	3,170,769	2,450,079	5,620,848	\$ 106,759,792	\$ 82,494,160	\$ 189,253,952
Petro	711,763	3,690,876	4,402,639	\$ 594,756,280	\$ 3,084,132,894	\$ 3,678,889,175
Aggregates	1,225,687	2,873,351	4,099,038	\$ 11,031,183	\$ 25,860,159	\$ 36,891,342
Grains	-	257,963	257,963	\$ -	\$ 54,192,867	\$ 54,192,867
Chemicals	4,324	1,541,766	1,546,090	\$ 1,941,173	\$ 692,145,010	\$ 694,086,184
Ores & Minerals	1,302,042	1,408,274	2,710,316	\$ 97,744,293	\$ 105,719,129	\$ 203,463,422
Iron & Steel	1,213,449	2,715,023	3,928,472	\$ 71,593,491	\$ 160,186,357	\$ 231,779,848
Others	951,546	985,751	1,937,297	\$ 92,947,013	\$ 96,288,158	\$ 189,235,171
TOTAL	8,579,580	15,923,083	24,502,663	\$ 976,773,226	\$ 4,301,018,735	\$ 5,277,791,961
2009						
Coal	2,271,837	2,539,160	4,810,997	\$ 76,492,752	\$ 85,493,517	\$ 161,986,269
Petro	542,689	3,109,781	3,652,470	\$ 453,476,355	\$ 2,598,564,101	\$ 3,052,040,457
Aggregates	170,188	2,142,197	2,312,385	\$ 1,531,692	\$ 19,279,773	\$ 20,811,465
Grains	96,046	415,350	511,396	\$ 20,177,344	\$ 87,256,728	\$ 107,434,072
Chemicals	17,793	1,335,345	1,353,138	\$ 7,987,811	\$ 599,476,431	\$ 607,464,242
Ores & Minerals	1,860,900	1,577,258	3,438,158	\$ 139,697,763	\$ 118,404,758	\$ 258,102,521
Iron & Steel	640,092	1,491,166	2,131,258	\$ 37,765,428	\$ 87,978,794	\$ 125,744,222
Others	1,155,850	766,053	1,921,903	\$ 112,903,428	\$ 74,828,057	\$ 187,731,485
TOTAL	6,755,395	13,376,310	20,131,705	\$ 850,032,573	\$ 3,671,282,160	\$ 4,521,314,733
2010						
Coal	2,069,165	2,689,526	4,758,691	\$ 69,668,786	\$ 90,556,340	\$ 160,225,126
Petro	896,670	3,417,071	4,313,741	\$ 749,266,419	\$ 2,855,338,698	\$ 3,604,605,117
Aggregates	245,941	1,467,584	1,713,525	\$ 2,213,469	\$ 13,208,256	\$ 15,421,725
Grains	26,451	425,973	452,424	\$ 5,556,826	\$ 89,488,408	\$ 95,045,234
Chemicals	12,586	1,376,260	1,388,846	\$ 5,650,233	\$ 617,844,402	\$ 623,494,635
Ores & Minerals	1,408,568	818,049	2,226,617	\$ 105,741,200	\$ 61,410,938	\$ 167,152,138
Iron & Steel	782,067	1,540,210	2,322,277	\$ 46,141,953	\$ 90,872,390	\$ 137,014,343
Others	1,149,554	1,425,282	2,574,836	\$ 112,288,435	\$ 139,221,546	\$ 251,509,980
TOTAL	6,591,002	13,159,955	19,750,957	\$ 1,096,527,320	\$ 3,957,940,979	\$ 5,054,468,298