

# Mineral Industry Surveys

**For information, contact:**

E. Lee Bray, Aluminum Commodity Specialist  
 National Minerals Information Center  
 U.S. Geological Survey  
 989 National Center  
 Reston, VA 20192  
 Telephone: (703) 648-4979, Fax: (703) 648-7757  
 Email: lbray@usgs.gov

Susan M. Weaver (Data)  
 Telephone: (703) 648-7979  
 Fax: (703) 648-7995  
 Email: sweaver@usgs.gov

**Internet:** <http://minerals.usgs.gov/minerals/>

## ALUMINUM IN FEBRAURY 2019

Domestic primary aluminum production in February was 87,000 metric tons (t). The average daily production in February was 3,100 t, slightly more than that in January, 42% more than that in February 2018 and 54% more than that in February 2017 (fig. 1, table 1).

Total aluminum recovered from scrap in February was 271,000 t, 7% less than the revised amount in January, 7% less than the revised amount in February 2018, and 9% less than the amount in February 2017. Of this, 152,000 t of aluminum was recovered from new scrap and 119,000 t was recovered from old scrap (fig. 1, table 1).

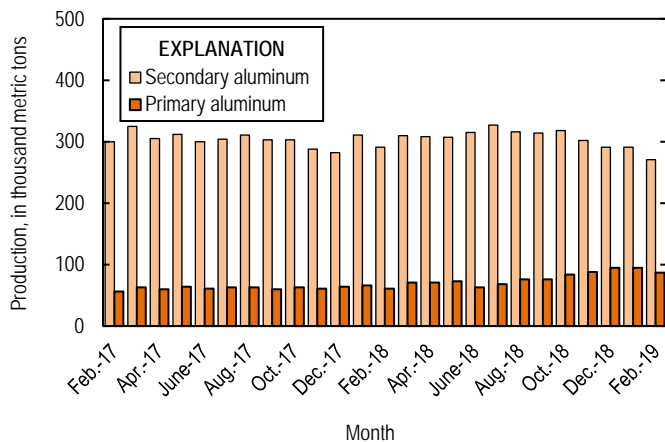


Figure 1. Monthly domestic primary and secondary aluminum production from February 2017 through February 2019.

**Prices and Stocks**

The February average U.S. market price of primary aluminum ingot increased slightly from that in January to \$1.04 per pound. The average cash price in February of primary aluminum ingot on the London Metal Exchange (LME) increased slightly from that in January to \$0.843 per pound (fig. 2, table 6).

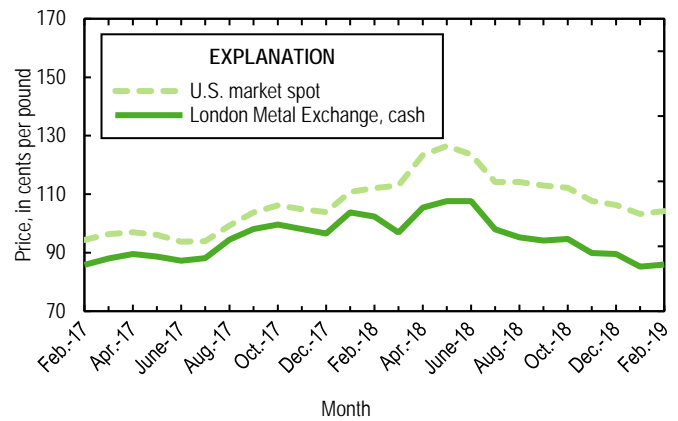


Figure 2. Average monthly prices for primary aluminum from February 2017 through February 2019. Source: Platts Metals Week.

Inventories of primary aluminum in LME-approved warehouses in the United States decreased to 44,175 t at the end of February from 48,225 t at the end of January. Inventories of secondary aluminum (North American Secondary Aluminum Alloy Contract) in LME-approved warehouses in the United States decreased to 121,700 t at the end of February from 126,340 t at the end of January (London Metal Exchange Ltd., 2019a, b).

**Update**

United Company RUSAL Plc announced that it would invest \$200 million in a rolling mill being constructed in Ashland, KY, by Braidy Industries Inc. The rolling mill would produce sheet for the automobile industry and would reach full production in 2021. The hot mill capacity would be 500,000 metric tons per year (t/yr), and the cold mill would produce 300,000 t/yr of finished sheet. As part of the joint venture, RUSAL would provide the mill with an average of 200,000 t/yr of rolling slab for 10 years from a smelter being constructed in Taishet, Russia. The mill would also have a furnace and casthouse to produce slab from scrap. When the investment is finalized, Braidy would

own 60% of the project and RUSAL would own 40%. The transaction was pending regulatory approval (Braidy Industries Inc., 2019; Innace, 2019; United Company RUSAL Plc, 2019).

## References Cited

- Braidy Industries Inc., 2019, Braidy Industries secures partnership for America's first low-carbon, high value aluminum mill: Ashland, Kentucky, Braidy Industries Inc. press release, April 15. (Accessed April 29, 2019, at <https://www.braidy.com/2019/04/14/braidy-industries-secures-partnership-for-americas-first-low-carbon-high-value-aluminum-mill/>.)
- Innace, Joe, 2019, Rusal to be strategic partner, exclusive supplier to Braidy's new Kentucky aluminum mill: Platts Metals Daily, v. 8, no. 74, April 15, p. 1-3.
- London Metal Exchange Ltd., 2019a, Aluminium stocks: London, United Kingdom, London Metal Exchange Ltd., January 31, 3 p.

- London Metal Exchange Ltd., 2019b, Aluminium stocks: London, United Kingdom, London Metal Exchange Ltd., February 28, 3 p.
- United Company RUSAL Plc, 2019, RUSAL and Braidy Industries will construct a green field aluminium rolling mill in Ashland, Kentucky: Moscow, Russia, United Company RUSAL Plc press release, April 15. (Accessed April 29, 2019, at <https://rusal.ru/en/press-center/press-releases/26167/>.)

*List services and web feed subscribers are the first to receive notification of USGS minerals information publications and data releases. For information on how to subscribe, go to <http://minerals.usgs.gov/minerals/>.*

TABLE 1  
COMPONENTS OF ALUMINUM SUPPLY<sup>1</sup>

(Thousand metric tons)

Period	Primary production	Secondary recovery <sup>2</sup>			Imports for consumption			Total new supply <sup>3</sup>	Stocks, end of period <sup>4</sup>
		New	Old	Total	Metals and alloys, crude	Plates, sheets, bars, etc.	Total		
2018 <sup>p</sup>	891	2,140 <sup>r</sup>	1,570 <sup>r</sup>	3,710 <sup>r</sup>	4,130	1,410	5,540	10,100 <sup>r</sup>	1,570
2018:									
February	61	167 <sup>r</sup>	125 <sup>r</sup>	291 <sup>r</sup>	374	99	473	826 <sup>r</sup>	1,450
March	71	180 <sup>r</sup>	130 <sup>r</sup>	310 <sup>r</sup>	555	126	681	1,062	1,430
April	71	174	133	308 <sup>r</sup>	381	122	503	881 <sup>r</sup>	1,460
May	73	174	132 <sup>r</sup>	307 <sup>r</sup>	349	120	469	849 <sup>r</sup>	1,490
June	63	181 <sup>r</sup>	134	315 <sup>r</sup>	297	99	396	774 <sup>r</sup>	1,470
July	68	194	133	327 <sup>r</sup>	332	105	437	833 <sup>r</sup>	1,520
August	76	185	131 <sup>r</sup>	316 <sup>r</sup>	292	104	396	787 <sup>r</sup>	1,560
September	76	182	132 <sup>r</sup>	314 <sup>r</sup>	313	105	418	809 <sup>r</sup>	1,560
October	84	182	136 <sup>r</sup>	318 <sup>r</sup>	306	119	425	827 <sup>r</sup>	1,570
November	88	169 <sup>r</sup>	133 <sup>r</sup>	302 <sup>r</sup>	294	122	416	806 <sup>r</sup>	1,580
December	95	169	122 <sup>r</sup>	291 <sup>r</sup>	306	122	428	813 <sup>r</sup>	1,570
January-February	127	349	254	603	707	266	973	1,703	1,570
2019:									
January	95	172	119 <sup>r</sup>	291 <sup>r</sup>	298	136	434	820 <sup>r</sup>	1,640
February	87	152	119	271	284	118	402	760	1,600
January-February	181	325	238	563	582	254	836	1,580	1,600

<sup>p</sup>Preliminary. <sup>r</sup>Revised.

<sup>1</sup>Data are rounded to no more than three significant digits, except "Primary production"; may not add to totals shown.

<sup>2</sup>Metallic recovery from purchased, tolled, or imported scrap, expanded for full coverage of industry.

<sup>3</sup>Primary production, secondary recovery, and imports for consumption.

<sup>4</sup>Inventory levels reflect total for U.S. and Canadian producers; data from the Aluminum Association Inc.

TABLE 2  
ESTIMATED FULL COVERAGE CONSUMPTION OF AND METALLIC RECOVERY FROM  
PURCHASED NEW AND OLD ALUMINUM SCRAP<sup>1</sup>

(Thousand metric tons)

Period	Secondary smelters		Independent mill fabricators		Foundries		Other consumers		Total	
	Con-sump-tion	Metal recovery	Con-sump-tion	Metal recovery	Con-sump-tion	Metal recovery	Con-sump-tion	Metal recovery	Con-sump-tion	Metal recovery
	2018 <sup>p</sup>	2,210 <sup>r</sup>	1,700 <sup>r</sup>	2,090	1,910	101	93	4	4	4,410 <sup>r</sup>
2018:										
February	180 <sup>r</sup>	136 <sup>r</sup>	161	148	8	8	(2)	(2)	350 <sup>r</sup>	291 <sup>r</sup>
March	172 <sup>r</sup>	135 <sup>r</sup>	181	166	8	8	(2)	(2)	361 <sup>r</sup>	310 <sup>r</sup>
April	173 <sup>r</sup>	137 <sup>r</sup>	178	163	8	8	(2)	(2)	359 <sup>r</sup>	308 <sup>r</sup>
May	176 <sup>r</sup>	139 <sup>r</sup>	174	159	8	8	(2)	(2)	359 <sup>r</sup>	307 <sup>r</sup>
June	186 <sup>r</sup>	143 <sup>r</sup>	179	164	8	8	(2)	(2)	375 <sup>r</sup>	315 <sup>r</sup>
July	189 <sup>r</sup>	146 <sup>r</sup>	189	173	8	8	(2)	(2)	386 <sup>r</sup>	327 <sup>r</sup>
August	191 <sup>r</sup>	148 <sup>r</sup>	175	160	8	8	(2)	(2)	374 <sup>r</sup>	316 <sup>r</sup>
September	189 <sup>r</sup>	146 <sup>r</sup>	175	160	8	8	(2)	(2)	373 <sup>r</sup>	314 <sup>r</sup>
October	195 <sup>r</sup>	146 <sup>r</sup>	179	164	8	8	(2)	(2)	383 <sup>r</sup>	318 <sup>r</sup>
November	189 <sup>r</sup>	141 <sup>r</sup>	167	153	8	8	(2)	(2)	365 <sup>r</sup>	302 <sup>r</sup>
December	186 <sup>r</sup>	141 <sup>r</sup>	155	142	8	8	(2)	(2)	350 <sup>r</sup>	291 <sup>r</sup>
January-February	367	278	337	309	17	15	1	1	721	603
2019:										
January	178 <sup>r</sup>	135 <sup>r</sup>	161	148	8	8	(2)	(2)	348 <sup>r</sup>	291 <sup>r</sup>
February	182	138	137	126	8	8	(2)	(2)	327	271
January-February	360	273	297	274	17	15	1	1	675	563

<sup>p</sup>Preliminary. <sup>r</sup>Revised.

<sup>1</sup>Data are rounded to no more than three significant digits; may not add to totals shown.

<sup>2</sup>Less than ½ unit.

TABLE 3  
 CONSUMPTION OF AND RECOVERY FROM PURCHASED  
 NEW AND OLD ALUMINUM SCRAP IN FEBRUARY 2019<sup>1</sup>

(Metric tons)

	Consumption		Calculated metallic recovery	
	Tabulated reports	Estimated full coverage	Tabulated reports	Estimated full coverage
Secondary smelters	151,000	182,000	115,000	138,000
Independent mill fabricators	124,000	137,000	114,000	126,000
Foundries	7,040	8,450	6,440	7,730
Other consumers	273	328	273	328
Total	283,000	327,000	236,000	271,000

<sup>1</sup>Data are rounded to no more than three significant digits; may not add to totals shown.

TABLE 4  
PURCHASED AND TOLL-TREATED ALUMINUM-BASE SCRAP IN FEBRUARY 2019<sup>1</sup>

(Metric tons)

	February				January-February <sup>2</sup>	
	Stocks, opening <sup>2</sup>	Net receipts <sup>3</sup>	Melted or consumed	Stocks, closing	Net receipts <sup>3</sup>	Melted or consumed
New scrap:						
Extrusion	18,400	55,900	55,800	18,500	112,000	111,000
Can stock clippings	5,840	21,500	21,400	5,880	56,400	56,500
Other wrought sheet/clippings	29,600	38,300	33,600	34,300	79,000	71,700
Casting	4,150	6,850	6,850	4,150	13,100	13,100
Borings and turnings	5,610	11,600	11,600	5,600	23,400	23,300
Dross and skimmings	16,400	38,700	38,700	16,400	76,900	76,900
<b>Total new scrap</b>	<b>80,100</b>	<b>173,000</b>	<b>168,000</b>	<b>84,900</b>	<b>360,000</b>	<b>353,000</b>
Old scrap:						
Used castings	9,410	26,700	26,700	9,410	54,000	54,000
Used extrusion	9,190	15,900	15,900	9,190	26,900	26,900
Used cans (shredded, loose, baled)	11,200	34,400	34,500	11,100	72,600	72,700
Other wrought products	16,300	26,800	28,100	15,000	54,800	57,000
Fragmentized shredder (auto shredder)	3,990	9,560	9,640	3,900	19,300	19,400
<b>Total old scrap</b>	<b>50,100</b>	<b>113,000</b>	<b>115,000</b>	<b>48,600</b>	<b>228,000</b>	<b>230,000</b>
<b>Total all classes</b>	<b>130,000</b>	<b>286,000</b>	<b>283,000</b>	<b>134,000</b>	<b>588,000</b>	<b>583,000</b>

<sup>1</sup>Data are rounded to no more than three significant digits; may not add to totals shown.

<sup>2</sup>May include revisions to previously published data.

<sup>3</sup>Includes data on imported aluminum-base scrap.

TABLE 5  
ALUMINUM ALLOYS PRODUCED AT SECONDARY SMELTERS IN THE UNITED STATES IN FEBRUARY 2019<sup>1,2</sup>

(Metric tons)

	February			January–February		
	Stocks, opening <sup>3</sup>	Production	Net shipments	Stocks, closing	Production	Net shipments
<b>Die-cast alloys:</b>						
13% Si, 360, etc. (0.6% Cu, max.)	2,630	1,790	1,790	2,630	3,580	3,580
380 and variations	6,930	15,400	15,400	6,930	30,900	30,900
<b>Sand and permanent mold:</b>						
95/5 Al-Si, 356, etc. (0.6% Cu, max.)	1,310	2,550	2,550	1,310	5,100	5,100
No. 319 and variations	3,480	3,370	3,370	3,480	6,730	6,730
F-132 alloy and variations	418	386	386	418	772	772
Al-Zn alloys	W	W	W	W	W	W
Al-Si alloys (0.6% to 2.0% Cu)	214	142	142	214	284	284
Al-Cu alloys (1.5% Si, max.)	W	W	W	W	W	W
Other <sup>4</sup>	6,930	10,100	10,100	6,930	20,200	20,200
Wrought alloys, extrusion billets	10,800	55,000	55,000	10,800	110,000	110,000
<b>Total all alloys</b>	<b>32,700</b>	<b>88,800</b>	<b>88,800</b>	<b>32,700</b>	<b>177,000</b>	<b>177,000</b>
<b>Less:</b>						
Primary aluminum consumed	XX	15,900	XX	XX	31,900	XX
Primary silicon consumed	XX	1,980	XX	XX	3,960	XX
Other alloying ingredients consumed	XX	964	XX	XX	1,930	XX
Net metallic recovery from aluminum scrap consumed in production of secondary aluminum ingot <sup>5</sup>	XX	69,900	XX	XX	140,000	XX

W Withheld to avoid disclosing company proprietary data; included in "Other." XX Not applicable.

<sup>1</sup>Excludes integrated aluminum companies.

<sup>2</sup>Data are rounded to no more than three significant digits; may not add to totals shown.

<sup>3</sup>May include revisions to previously published data.

<sup>4</sup>Includes alloys No. 12, Al-Mg, Al-Zn, Al-Cu, Al-Si-Cu-Ni, aluminum-base hardeners, variations of these alloys, plus other aluminum alloys.

<sup>5</sup>No allowance made for melt-loss of primary aluminum and alloying ingredients.

TABLE 6  
 AVERAGE PRICE OF ALUMINUM IN THE UNITED STATES  
 AND ON THE LONDON METAL EXCHANGE

(Cents per pound)

Period	Midwest U.S. market price	LME cash price Grade A
2018:		
February	112.050	99.091
March	112.929	94.173
April	123.388	101.866
May	126.488	103.875
June	123.607	101.603
July	114.136	95.177
August	114.193	92.764
September	112.963	91.739
October	112.207	92.254
November	107.763	87.871
December	106.294	87.588
January–December	114.737	95.703
2019:		
January	103.268	83.711
February	104.202	84.333
January–February	103.735	84.022

Source: Platts Metals Week.



TABLE 7  
AVERAGE BUYING PRICES FOR ALUMINUM SCRAP

(Cents per pound)

Month	Used beverage cans	Mixed low copper clips	Old sheet	Old cast	Turnings (clean and dry)
2018:					
February	75.66	65.29	61.21	62.21	58.45
March	75.59	66.00	61.91	63.00	58.95
April	81.81	66.29	60.83	62.76	57.71
May	84.41	68.00	62.00	63.50	63.50
June	85.29	67.79	61.95	63.40	57.31
July	77.40	64.55	57.93	58.52	54.48
August	73.37	60.24	52.87	51.70	49.80
September	65.87	57.37	47.13	46.21	43.84
October	63.50	55.87	45.78	44.30	42.30
November	59.35	54.62	45.45	44.50	41.00
December	58.12	53.25	45.50	45.00	40.62
January–December	73.00	61.90	55.12	55.42	52.03
2019:					
January	54.98	50.55	44.38	43.45	39.38
February	57.58	50.21	45.32	44.32	39.50
January–February	56.28	50.38	44.85	43.89	39.44

Source: American Metal Market.

TABLE 8  
U.S. IMPORTS FOR CONSUMPTION OF ALUMINUM IN FEBRUARY 2019<sup>1</sup>

(Metric tons)

Country or locality	Metals and alloys, crude		Plates, sheets, bars, etc.		Scrap		Total	
	February	January– February	February	January– February	February	January– February	February	January– February
Argentina	18,900	30,500	1	21	--	--	18,900	30,500
Australia	19,200	49,500	1	266	15	58	19,200	49,900
Austria	--	--	1,620	4,650	--	--	1,620	4,650
Bahrain	11,000	27,600	3,380	8,070	--	--	14,400	35,700
Belgium	34	44	1,390	2,710	--	--	1,420	2,750
Brazil	600	1,610	4,600	8,560	--	--	5,200	10,200
Canada	151,000	270,000	14,900	30,100	28,200	59,900	195,000	360,000
Chile	--	--	--	--	355	785	355	785
China	1,360	2,570	14,200	28,400	--	7	15,600	31,000
Colombia	--	--	331	606	39	194	370	800
Costa Rica	--	--	--	--	321	699	321	699
El Salvador	--	--	26	73	117	304	143	377
France	698	1,400	2,000	4,090	3	5	2,700	5,500
Germany	24	65	5,710	11,600	147	721	5,880	12,300
Greece	--	--	2,160	6,470	--	--	2,160	6,470
Guatemala	--	--	--	--	900	1,880	900	1,880
Honduras	--	--	102	137	--	--	102	137
Hong Kong	--	--	939	1,630	--	--	939	1,630
India	8,490	27,200	4,450	9,500	--	--	12,900	36,700
Indonesia	--	--	8,790	17,600	--	--	8,790	17,600
Italy	--	300	2,530	6,280	--	--	2,530	6,580
Japan	--	17	2,720	6,680	139	728	2,860	7,420
Korea, Republic of	685	2,240	3,300	6,810	774	1,830	4,760	10,900
Malaysia	100	302	731	1,340	--	--	831	1,640
Mexico	58	93	3,050	7,290	11,700	26,000	14,800	33,400
Netherlands	97	184	118	876	29	45	244	1,110
New Zealand	500	1,350	--	--	--	--	500	1,350
Norway	6,090	6,200	475	869	--	--	6,570	7,060
Oman	--	506	8,060	15,300	--	--	8,060	15,800
Qatar	11,500	31,600	--	--	--	--	11,500	31,600
Romania	--	--	1,020	2,110	--	--	1,020	2,110
Russia	10,200	31,100	629	2,210	--	--	10,800	33,300
Saudi Arabia	2,610	5,440	2,460	3,900	--	--	5,070	9,340
South Africa	99	115	4,380	12,300	--	--	4,480	12,400
Spain	101	193	1,380	3,320	--	191	1,480	3,710
Sweden	--	--	1,050	1,880	--	--	1,050	1,880
Switzerland	--	--	450	770	--	--	450	770
Taiwan	61	68	5,390	10,900	112	252	5,560	11,300
Thailand	69	136	1,430	3,680	39	116	1,540	3,930
Turkey	--	--	5,430	12,200	--	--	5,430	12,200
United Arab Emirates	40,200	91,600	615	1,140	--	--	40,800	92,700
United Kingdom	7	35	1,100	2,800	154	442	1,260	3,280
Venezuela	--	28	--	--	89	89	89	117
Vietnam	--	--	1,790	4,360	100	1,090	1,890	5,450
Other	272	460	4,890	12,000	1,300	3,140	6,460	15,600
Total	284,000	583,000	118,000	253,000	44,500	98,500	447,000	935,000

-- Zero.

<sup>1</sup>Data are rounded to no more than three significant digits; may not add to totals shown.

Source: U.S. Census Bureau.

TABLE 9  
U.S. EXPORTS OF ALUMINUM IN FEBRUARY 2019<sup>1</sup>

(Metric tons)

Country or locality	Metals and alloys, crude		Plates, sheets, bars, etc.		Scrap		Total	
	February	January– February	February	January– February	February	January– February	February	January– February
Australia	13	213	207	333	--	--	220	546
Belgium	--	--	169	519	940	1,370	1,110	1,890
Bolivia	--	--	--	--	--	--	--	--
Brazil	--	2	1,180	1,950	2,040	3,520	3,220	5,470
Canada	7,600	16,700	27,700	56,900	7,270	15,400	42,600	89,000
China	74	81	2,200	3,490	37,400	73,800	39,600	77,400
Colombia	--	--	20	125	--	--	20	125
Dominican Republic	62	83	114	189	--	--	176	272
France	593	1,430	464	1,190	92	195	1,150	2,820
Germany	92	105	384	958	834	2,150	1,310	3,210
Guatemala	--	--	549	1,310	--	--	549	1,310
Hong Kong	1	1	59	93	6,360	10,200	6,420	10,300
India	45	81	136	316	17,600	35,500	17,800	35,900
Indonesia	--	--	7	10	8,540	17,100	8,540	17,100
Ireland	--	--	47	87	--	--	47	87
Israel	--	2	736	1,590	--	--	736	1,590
Italy	--	--	71	190	64	105	135	295
Jamaica	1	1	8	15	--	--	9	16
Japan	148	280	1,410	3,240	1,220	2,310	2,780	5,830
Korea, Republic of	19	56	2,820	5,710	23,600	43,900	26,400	49,600
Malaysia	5	6	256	452	14,100	23,900	14,300	24,400
Mexico	9,650	21,100	31,600	66,000	16,200	33,700	57,400	121,000
Netherlands	6	8	37	65	137	222	180	295
New Zealand	--	--	6	38	--	--	6	38
Norway	--	--	34	37	--	--	34	37
Pakistan	--	--	1	1	1,100	1,660	1,100	1,660
Panama	1	1	13	23	--	--	14	24
Philippines	--	--	13	24	777	1,670	790	1,690
Poland	10	19	92	189	--	--	102	208
Romania	7	21	74	109	--	--	81	130
Russia	1	2	6	26	316	1,240	323	1,270
Saudi Arabia	--	1	6	124	562	776	568	901
Singapore	29	97	153	321	468	985	650	1,400
Spain	--	6	54	152	551	771	605	929
Taiwan	63	102	321	817	6,650	14,500	7,030	15,500
Thailand	--	102	116	311	811	1,460	927	1,880
Turkey	--	60	623	976	--	--	623	1,040
United Arab Emirates	50	97	18	46	102	180	170	323
United Kingdom	85	147	863	1,750	549	763	1,500	2,660
Vietnam	--	--	7	9	137	195	144	204
Other	42	56	334	665	555	1,610	931	2,330
Total	18,600	40,800	73,000	150,000	149,000	289,000	240,000	480,000

-- Zero.

<sup>1</sup>Data are rounded to no more than three significant digits; may not add to totals shown.

Source: U.S. Census Bureau.