

# Mineral Industry Surveys

## For information, contact:

E. Lee Bray, Aluminum Commodity Specialist U.S. Geological Survey 989 National Center Reston, VA 20192

Telephone: (703) 648-4979, Fax: (703) 648-7757

E-mail: lbray@usgs.gov

Hoa P. Phamdang (Data) Telephone: (703) 648-7965 Fax: (703) 648-7975

E-mail: hphamdan@usgs.gov

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

## **ALUMINUM IN DECEMBER 2007**

Domestic primary aluminum production in December was 230,000 metric tons (t), according to the U.S. Geological Survey. The average daily production was 7,430 t, slightly higher than that of the previous month and 17% higher than the rate for December 2006. The average daily primary aluminum production in the fourth quarter was 3% higher than that of the third quarter and 17% higher than that of the fourth quarter of 2006. Primary aluminum production for 2007 was 12% higher than that in 2006. Total aluminum recovered from

scrap in December 2007 was 288,000 t. Of this, 167,000 t of aluminum was recovered from new scrap, and 121,000 t was recovered from old scrap.

The monthly average U.S. market price of primary aluminum ingot decreased to \$1.107 per pound in December from \$1.164 per pound in November but increased to \$1.136 per pound in January 2008.

## Used beverage can prices, cents per pound<sup>1</sup>

December 7	79-81
December 14	79-81
December 21	78-80
December 28	78-80
January 4	81-83
January 11	82-84
January 18	83-85
January 25	82-84

<sup>1</sup>Source: American Metal Market

 $\label{eq:table 1} TABLE~1$  COMPONENTS OF ALUMINUM SUPPLY  $^1$ 

#### (Thousand metric tons)

					Import	ts for consum	ption		
	Prim ary	Secon	dary recover	ry²	Metals and alloys,	Plates, sheets, bars,		Total new	Total stocks, end of
Period	production	New	Old	Total	crude	etc.	Total	supply <sup>3</sup>	period <sup>4</sup>
2006 <sup>5</sup>	2,284	2,310	1,200	3,510	3,440	1,220	4,660	10,400	1,410
2006:									
December	197	153 <sup>6</sup>	96 <sup>6</sup>	249 6	241	89	330	775	1,410
2007:									
January	202	194 <sup>r</sup>	136 <sup>r</sup>	331 <sup>r</sup>	251	98	349	881 <sup>r</sup>	1,460
February	185	182 <sup>r</sup>	120 r	302 r	258	86	344	831 <sup>r</sup>	1,460
March	217	201 <sup>r</sup>	143 <sup>r</sup>	344 <sup>r</sup>	238	93	332	892 <sup>r</sup>	1,410
April	209	188 <sup>r</sup>	131 <sup>r</sup>	319 <sup>r</sup>	259	94	353	881 <sup>r</sup>	1,430
May	210	194 <sup>r</sup>	138 <sup>r</sup>	332 <sup>r</sup>	220	97	317	859 <sup>r</sup>	1,400
June	209	196 <sup>r</sup>	134 <sup>r</sup>	329 r	255	92	347	885 <sup>r</sup>	1,330
July	219	205 <sup>r</sup>	127 <sup>r</sup>	332 <sup>r</sup>	236	102	337	888 r	1,370
August	220	188 <sup>r</sup>	148 <sup>r</sup>	336 г	267	91	358	914 <sup>r</sup>	1,390
September	216	183 <sup>r</sup>	129 <sup>r</sup>	312 r	268	84	352	881 <sup>r</sup>	1,350
October	224	194 <sup>r</sup>	148 <sup>r</sup>	342 <sup>r</sup>	243	86	330	896 <sup>r</sup>	1,350
November	220	186 <sup>r</sup>	135 <sup>r</sup>	321 <sup>r</sup>	238	76	314	855 <sup>r</sup>	1,350
December	230	167	121	288	NA	NA	NA	NA	NA
Ja nu ary - December	2,561	2,280	1,610	3,890	NA	NA	NA	NA	NA

Revised. NA Not available.

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

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

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

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

<sup>&</sup>lt;sup>5</sup>Includes annual reports.

<sup>&</sup>lt;sup>6</sup>Monthly data for 2006 exclude approximately 15,000 tons per month from new scrap, 17,000 tons per month from old scrap, and 32,000 tons per month from total scrap reported on an annual basis but not distributed into the individual months.

 ${\it TABLE~2}$  ESTIMATED FULL COVERAGE CONSUMPTION OF AND METALLIC RECOVERY FROM PURCHASED NEW AND OLD ALUMINUM SCRAP  $^{\rm I}$ 

#### (Thousand metric tons)

			Inte	grate d	Indep	endent						
	Seco	ondary	a lu n	a lu minum c ompanies		ni ll						
	sme	elters	com			fabricators		Foundries		sumers	Total	
	Con-		Con-		Con-		Con-		Con-		Con-	
	sump-	Metal	sump-	Metal	sum p-	Metal	sump-	Metal	sum p-	Metal	sump-	Metal
Period	tion	rec overy	tion	recovery	tion	rec overy	tion	recovery	tion	recovery	tion	recovery
2006	2,260	1,640	901	807	1,040	974	87	76	10	9	4,300	3,510
2006:	_											
December <sup>2</sup>	134	98	82	73	76	71	8	7	(3)	(3)	299	249
2007:												
January	203 <sup>r</sup>	159 <sup>r</sup>	81	73	98 <sup>r</sup>	91 <sup>r</sup>	8	7	(3)	(3)	391 <sup>r</sup>	331 <sup>r</sup>
February	183 <sup>r</sup>	142 <sup>r</sup>	69	62	98 <sup>r</sup>	91 <sup>r</sup>	8	7	(3)	(3)	359 г	302 r
March	216 <sup>r</sup>	168 <sup>r</sup>	90	81	94 <sup>r</sup>	88 <sup>r</sup>	8	7	(3)	(3)	408 <sup>r</sup>	344 <sup>r</sup>
April	196 <sup>r</sup>	152 <sup>r</sup>	80	72	94 <sup>r</sup>	88 <sup>r</sup>	8	7	(3)	(3)	379 г	319 <sup>r</sup>
May	191 <sup>r</sup>	148 <sup>r</sup>	94	84	99 <sup>r</sup>	92 <sup>r</sup>	8	7	(3)	(3)	392 г	332 г
June	185 <sup>r</sup>	142 <sup>r</sup>	88	79	108 <sup>r</sup>	100 r	8	7	(3)	(3)	389 r	329 r
July	194 <sup>r</sup>	151 <sup>r</sup>	77	69	113 <sup>r</sup>	106 <sup>r</sup>	8	7	(3)	(3)	392 г	332 <sup>r</sup>
August	191 <sup>r</sup>	147 <sup>r</sup>	93	83	105 <sup>r</sup>	98 <sup>r</sup>	8	7	(3)	(3)	397 <sup>r</sup>	336 г
September	191 <sup>r</sup>	148 <sup>r</sup>	75	66	96 <sup>r</sup>	90 <sup>r</sup>	8	7	(3)	(3)	370 <sup>r</sup>	312 <sup>r</sup>
October	196 г	153 г	91	80	109 r	102 r	8	7	(3)	(3)	404 r	342 r
November	190 <sup>r</sup>	147 <sup>r</sup>	68 <sup>r</sup>	60 <sup>r</sup>	115 <sup>r</sup>	107 <sup>r</sup>	8	7	(3)	(3)	381 <sup>r</sup>	321 <sup>r</sup>
December	178	138	67	60	89	83	8	7	(3)	(3)	342	288
January-December	2,310	1,800	973	869	1,220	1,140	96	84	6	6	4,600	3,890

rRevised.

TABLE 3 CONSUMPTION OF AND RECOVER Y FROM PURCHASED NEW AND OLD ALUMINUM SCRAP IN DECEMBER  $2007^1$ 

## (Metric tons)

			Calculated				
	Consu	mption	metallic	c recovery			
	Tabulated	Tabulated Estimated		Estimated			
	reports	full coverage	reports	full coverage			
Secondary smelters	148,000	178,000	115,000	138,000			
Integrated aluminum companies	66,800	66,800	59,500	59,500			
Independent mill fabricators	74,400	89,300	69,400	83,200			
Foundries	6,640	7,970	5,840	7,010			
Other consumers	360	432	360	432			
Total	296,000	342,000	250,000	288,000			

Data are rounded to no more than three significant digits; may not add to totals shown.

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

<sup>&</sup>lt;sup>2</sup>Monthly data for 2006 exclude approximately 36,000 tons per month of scrap consumption and 32,000 tons per month of aluminum recovered from scrap reported on an annual bais but not distributed into the individual months.

<sup>&</sup>lt;sup>3</sup>Less than ½ unit.

 ${\it TABLE~4}$  PURCHASED AND TOLL-TREATED ALUMINUM-BASE SCRAP AND SWEATED PIG IN  $2007^1$ 

		Decei	n ber		January-December		
	Stocks,	Net	Melted or	Stocks,	Net	Melted or	
	opening	receipts <sup>2</sup>	consumed	closing	receipts <sup>2</sup>	consumed	
New scrap:		•			•		
Extrusion	26,800 <sup>r</sup>	75,500	79,200	23,000	1,010,000	1,020,000	
Can stock clippings	2,960	13,400	13,900	2,410	279,000	277,000	
Other wrought sheet/clippings	4,310 <sup>r</sup>	25,800	25,900	4,150	329,000	329,000	
Casting	1,190	5,220	5,170	1,240	82,200	83,700	
Borings and turnings	2,230 <sup>r</sup>	17,500	15,000	4,690	205,000	203,000	
Dross and skimmings	3,630	34,200	33,800	4,110	433,000	433,000	
Total new scrap	41,100 <sup>r</sup>	172,000	173,000	39,600	2,340,000	2,350,000	
Old scrap:							
Used castings	2,510 <sup>r</sup>	15,000	14,800	2,710	215,000	216,000	
Used extrusion	2,370 <sup>r</sup>	7,080	7,640	1,810	91,500	92,000	
Used cans (shredded, loose, baled)	3,460 <sup>r</sup>	49,200	47,800	4,870	690,000	689,000	
Other wrought products	3,150	34,600	32,900	4,840	394,000	392,000	
Fragmentized shredder (auto shredder)	6,090 <sup>r</sup>	20,900	19,900	7,050	256,000	255,000	
Total old scrap	17,600 <sup>r</sup>	127,000	123,000	21,300	1,650,000	1,640,000	
Sweated pig	198	138	254	82	8,340	8,460	
Total all classes	58,900 <sup>r</sup>	298,000	296,000	61,000	4,000,000	4,000,000	

Revised. -- Zero.

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

<sup>&</sup>lt;sup>2</sup>Includes data on imported a luminum-base scrap.

 ${\rm TAB\,LE}~5$  ALUMINUM ALLOYS PRODUCED AT SECONDARY SMELTERS IN THE UNITED STATES IN  $2007^{1,2}$ 

		Decen	ber		Januar y-I	December	
	Stocks,		Net	Stocks,		Net	
	opening	Production	shipments	closing	Production	shipments	
Die-cast alloys:							
13% Si, 360, etc. (0.6% Cu, max.)	2,670	1,920	1,370	3,230	24,500	24,100	
380 and variations	5,310 <sup>r</sup>	17,000	16,900	5,410	266,000	267,000	
Sand and permanent mold:	_						
95/5 Al-Si, 356, etc. (0.6% Cu, max.)	1,730	2,710	3,010	1,430	33,200	33,700	
No. 319 and variations	1,900	5,400	4,960	2,340	65,400	65,900	
F-132 alloy and variations	888	1,090	1,240	740	17,000	17,100	
Al-Zn alloys	306	195	193	308	2,320	2,320	
Al-Si alloys (0.6% to 2.0% Cu)	177	213	304	86	2,560	2,650	
Al-Cu alloys (1.5% Si, max.)	283	411	411	283	4,940	4,940	
Other <sup>3</sup>	5,050 <sup>r</sup>	10,300	7,910	7,470	127,000	125,000	
Wrought alloys, extrusion billets	13,900 <sup>r</sup>	52,600	51,100	15,400	642,000	641,000	
Total all alloys	32,200 r	91,900	87,400	36,700	1,190,000	1,180,000	
Less:	_						
Primary a luminum consumed	XX	17,400	XX	XX	215,000	XX	
Primary silicon consumed	XX	5,210	XX	XX	35,700	XX	
Other alloying ingredients consumed	XX	587	XX	XX	9,730	XX	
Net metallic recovery from aluminum	_						
scrap and sweated pig consumed in							
production of secondary aluminum							
ingot <sup>4</sup>	XX	68,700	XX	XX	924,000	XX	

<sup>&</sup>lt;sup>r</sup>Revised. XX Not applicable.

<sup>&</sup>lt;sup>1</sup>Excludes integrated aluminum companies.

 $<sup>^2\</sup>mathrm{Data}$  are rounded to no more than three significant digits; may not add to totals shown.

<sup>&</sup>lt;sup>3</sup>Includes alloys No. 12, Al-Mg, Al-Si-Cu-Ni, aluminum-base hardeners, variations of these alloys, plus other aluminum alloys.

<sup>&</sup>lt;sup>4</sup>No allowance made for melt-loss of primary aluminum and alloying ingredients.

 $\label{eq:table 6} \text{U.s. IMPORTS FOR CONSUMPTION OF ALUMINUM IN NOVEMBER 2007}^{\text{l}}$ 

	Metals and a	alloys, crude	Plates, sheet	ts, bars, etc.	Sci	rap	Total		
	January-			January-	-	January-		January-	
Country	November	November	November	November	November	November	November	November	
Argentina	5,680	55,300	(2)	56			5,680	55,400	
Australia	99	50,000	3	98		2,730	102	52,800	
Bahrain	626	35,100	1,520	17,000			2,150	52,100	
Belgium		94	573	11,000		14	573	11,100	
Brazil	1,900	74,500	807	24,500		1	2,710	99,000	
Canada	167,000	1,760,000	33,800	414,000	26,400	299,000	228,000	2,480,000	
China	1,460	35,800	10,300	156,000		58	11,700	192,000	
France	8	424	386	3,290	9	43	403	3,760	
Germany	505	2,280	6,570	92,800	35	434	7,110	95,600	
Hungary			7	135			7	135	
Italy		513	381	6,970	17	77	398	7,560	
Japan	36	189	894	13,900	73	656	1,000	14,700	
Korea, Republic of	107	2,490	135	2,790	11	69	253	5,350	
Mexico	2,410	20,500	1,430	18,400	9,850	96,500	13,700	135,000	
Netherlands	83	787	448	2,800		79	531	3,670	
Norway	427	4,420	1	140			428	4,560	
Russia	30,500	417,000	4,560	51,500		1,660	35,000	470,000	
South Africa	7,530	55,000	3,880	43,700			11,400	98,800	
S pa in		101	9	492		19	9	612	
Sweden			48	1,630			48	1,630	
S witz erland		137	625	5,510			625	5,640	
United Arab Emirates	6,790	103,000				18	6,790	103,000	
United Kingdom	153	3,840	555	5,220	441	977	1,150	10,000	
Venezuela	9,810	59,700	771	8,010	23	486	10,600	68,200	
Other	2,550	46,500	8,640	120,000	3,080	35,500	14,300	202,000	
Total	238,000	2,730,000	76,300	1,000,000	39,900	438,000	354,000	4,170,000	

<sup>--</sup> Zero.

Source: U.S. Census Bureau.

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

<sup>&</sup>lt;sup>2</sup>Less than ½ unit.

 $\label{eq:table 7} \textbf{U.S.} \, \textbf{EXPORTS} \, \textbf{OF} \, \textbf{ALUMINUM IN NOVEMBER} \, \textbf{2007}^1$ 

	Metals and a	alloys, crude	Plates, shee	ts, bars, etc.	Sci	rap	Total		
	January-		-	January-		Ja nu ary-		January-	
Country or territory	November	November	November	November	November	November	November	November	
Australia	4	262	198	1,700		146	202	2,110	
Azerbaijan				9				9	
Belgium	1	388	248	2,730			250	3,110	
Brazil	377	1,490	1,340	11,300	421	4,260	2,140	17,100	
Canada	11,300	108,000	34,200	397,000	12,700	148,000	58,200	652,000	
China	437	947	2,330	21,100	84,000	735,000	86,800	757,000	
Czech Republic		2	16	245			16	247	
Dominican Republic	. 1	23	27	470	2	20	30	514	
France	151	722	630	9,500	38	198	819	10,400	
Germany	160	2,620	697	8,770	58	1,130	915	12,500	
Hong Kong	9	657	1,220	18,600	4,260	33,400	5,480	52,700	
India	(2)	159	89	1,200	1,110	14,000	1,200	15,400	
Israel	52	1,200	614	5,150		1	667	6,350	
Italy	1,810	5,800	388	3,610	2,070	3,160	4,270	12,600	
Japan	425	13,800	1,520	17,100	5,830	39,900	7,780	70,800	
Korea, Republic of	19	411	1,850	17,200	16,300	184,000	18,200	201,000	
Malaysia	- 	14	645	9,950	49	7,780	694	17,700	
Mexico	13,600	178,000	18,800	231,000	6,420	75,700	38,900	484,000	
Netherlands	3	1,610	77	1,280	74	1,260	154	4,150	
Russia		516	1,290	1,480		139	1,290	2,140	
Saudi Arabia		18	4,110	27,200			4,110	27,300	
Singapore	38	334	197	2,700		329	235	3,360	
S pa in	6	588	86	1,420	63	582	155	2,590	
Sweden		30	16	378		1,270	16	1,680	
Taiwan	2	356	412	5,590	9,400	123,000	9,810	129,000	
Thailand		526	1,000	11,300	4,070	20,700	5,070	32,500	
Ukraine	397	573	266	322			663	895	
United Kingdom	8	204	2,600	18,800	10	1,820	2,620	20,900	
Venezuela	99	113	639	2,590		80	738	2,780	
Other	680	5,530	5,020	49,900	1,640	19,200	7,340	74,600	
Total	29,600	325,000	80,500	879,000	149,000	1,410,000	259,000	2,620,000	

<sup>--</sup> Zero.

Source: U.S. Census Bureau.

 $<sup>^{1}\</sup>mathrm{Data}$  are rounded to no more than three significant digits; may not add to totals shown.

<sup>&</sup>lt;sup>2</sup>Less than ½ unit.