

ALUMINUM¹

(Data in thousand metric tons of metal, unless otherwise noted)

Domestic Production and Use: In 1997, 13 companies operated 22 primary aluminum reduction plants. Montana, Oregon, and Washington accounted for 40% of the production; Kentucky, North Carolina, South Carolina, and Tennessee, 20%; other States, 40%. Based on published market prices, the value of primary metal production in 1997 was \$5.9 billion. Aluminum consumption, by an estimated 25,000 firms, was centered in the East Central United States. Transportation accounted for an estimated 32% of domestic consumption in 1997; packaging, 26%; building, 16%; electrical, 8%; consumer durables, 8%; and other, 10%.

Salient Statistics—United States:	1993	1994	1995	1996	1997^e
Production: Primary	3,695	3,299	3,375	3,577	3,600
Secondary (from old scrap)	1,630	1,500	1,510	1,570	1,700
Imports for consumption	2,540	3,380	2,970	2,810	3,100
Exports	1,210	1,370	1,610	1,500	1,600
Shipments from Government stockpile excesses	—	—	—	—	57
Consumption, apparent ²	6,600	6,880	6,320	6,620	6,900
Price, ingot, average U.S. market (spot), cents per pound	53.3	71.2	85.9	71.3	75
Stocks: Aluminum industry, yearend	1,980	2,070	2,000	1,830	1,800
LME, U.S. warehouses, yearend	168	16	14	12	10
Employment, primary reduction, number	18,800	17,800	17,800	18,200	18,000
Net import reliance ³ as a percent of apparent consumption	19	30	23	22	23

Recycling: Aluminum recovered in 1997 from purchased scrap was about 3.5 million tons, of which about 50% came from new (manufacturing) scrap and 50% from old scrap (discarded aluminum products). Aluminum recovered from old scrap was equivalent to about 25% of apparent consumption.

Import Sources (1993-96): Canada, 62%; Russia, 18%; Venezuela, 5%; Mexico, 3%; and other, 12%.

Tariff:	Item	Number	Most favored nation (MFN) 12/31/97	Non-MFN⁴ 12/31/97
	Unwrought (in coils)	7601.10.3000	2.6% ad val.	18.5% ad val.
	Unwrought (other than aluminum alloys)	7601.10.6000	Free	11.0% ad val.
	Waste and scrap	7602.00.0000	Free	Free.

Depletion Allowance: None.¹

Government Stockpile:

Material	Stockpile Status—9-30-97⁵				
	Uncommitted inventory	Committed inventory	Authorized for disposal	Disposal plan FY 1997	Disposals FY 1997
Aluminum	9	5	9	57	48

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Events, Trends, and Issues: Domestic primary aluminum production remained relatively stable in 1997. Domestic smelters continued to operate at about 85% of engineered or rated capacity.

U.S. imports for consumption increased in 1997, reversing the downward trend that began in 1995. Although Russia remained second only to Canada as a major shipper of aluminum materials to the United States, the level of its shipments has declined over the last few years from the record high level reached in 1994 and appears to have stabilized at about 400,000 tons of aluminum per year.

The 1997 Defense Authorization Act authorized the Defense Logistics Agency to sell the entire inventory of 57,045 tons (62,882 short tons) of aluminum metal from the National Defense Stockpile. Sales began on April 15, and, by the end of October, the entire inventory had been sold.

The price of primary aluminum ingot in the United States fluctuated within the range of 75 to 80 cents per pound during most of the year. In January, the average monthly U.S. market price for primary ingot quoted by Platt's Metals Week was 76.1 cents per pound; by August the price had risen to 80.1 cents per pound. However, there were indications that the price would turn downward again in September. Prices on the London Metal Exchange (LME) followed the trend of the U.S. market prices. The monthly average LME cash price for August was 77.6 cents per pound. Prices in the aluminum scrap markets paralleled the general trend of primary ingot prices. The buying price for aluminum used beverage can scrap, as quoted by American Metal Market, increased from a 53- to 54-cent-per-pound range in January to a 59- to 60-cent-per-pound range at the end of August.

World production increased as producers continued to bring back on-stream primary capacity that had been temporarily idled and to start-up new capacity expansions. Inventories of metal held by producers, as reported by the International Primary Aluminium Institute, declined slightly during the first half of 1997. Inventories of metal held by the LME also declined during the same period before beginning to increase in August.

World Smelter Production and Capacity:

	Production		Yearend capacity	
	1996	1997 ^e	1996	1997 ^e
United States	3,577	3,600	4,200	4,200
Australia	1,372	1,390	1,450	1,570
Brazil	1,190	1,200	1,210	1,220
Canada	2,282	2,300	2,280	2,290
China	1,780	1,800	1,750	1,800
France	365	400	430	430
Norway	874	880	924	953
Russia	2,800	2,880	2,970	2,970
South Africa	620	670	578	666
Venezuela	600	630	635	638
Other countries	5,210	5,400	6,450	6,650
World total (rounded)	20,700	21,200	22,900	23,400

World Resources: Domestic aluminum requirements cannot be met by domestic bauxite resources. Potential domestic nonbauxitic aluminum resources are abundant and could meet domestic aluminum demand. However, no processes for using these resources have been proven economically competitive with those now used for bauxite. The world reserve base for bauxite is sufficient to meet world demand for metal well into the 21st century.

Substitutes: Copper can replace aluminum in electrical applications; magnesium, titanium, and steel can substitute for aluminum in structural and ground transportation uses. Composites, wood, and steel can substitute for aluminum in construction. Glass, plastics, paper, and steel can substitute for aluminum in packaging.

^eEstimated.

¹See also Bauxite.

²Domestic primary metal production + recovery from old aluminum scrap + net import reliance.

³Defined as imports - exports + adjustments for Government and industry stock changes.

⁴See Appendix B.

⁵See Appendix C for definitions.