ALUMINUM¹

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

Domestic Production and Use: In 1998, 13 companies operated 23 primary aluminum reduction plants. Montana, Oregon, and Washington accounted for 40% of the production; New York, Maryland, Ohio, and West Virginia, 20%; other States, 40%. Based on published market prices, the value of primary metal production in 1998 was \$5.3 billion. Aluminum consumption, by an estimated 25,000 firms, was centered in the East Central United States. Transportation accounted for an estimated 36% of domestic consumption in 1998; packaging, 25%; building, 14%; electrical, 8%; consumer durables, 7%; and other, 10%.

Salient Statistics—United States:	<u>1994</u>	<u>1995</u>	<u>1996</u>	<u>1997</u>	<u>1998°</u>
Production: Primary	3,299	3,375	3,577	3,603	3,700
Secondary (from old scrap)	1,500	1,510	1,580	1,530	1,500
Imports for consumption	3,380	2,980	2,810	3,080	3,300
Exports	1,370	1,610	1,500	1,570	1,500
Shipments from Government stockpile					
excesses				57	(²)
Consumption, apparent ³	6,880	6,320	6,600	6,690	6,900
Price, ingot, average U.S. market (spot),					
cents per pound	71.2	85.9	71.3	77.1	65.0
Stocks: Aluminum industry, yearend	2,070	2,000	1,860	1,880	1,950
LME, U.S. warehouses, yearend	16	14	12	(²)	_
Employment, primary reduction, number	17,800	17,800	18,200	18,000	18,300
Net import reliance ⁴ as a percent of					
apparent consumption	30	23	22	23	25

Recycling: Aluminum recovered in 1998 from purchased scrap was about 3.5 million tons, of which about 55% came from new (manufacturing) scrap and 45% from old scrap (discarded aluminum products). Aluminum recovered from old scrap was equivalent to about 20% of apparent consumption.

Import Sources (1994-97): Canada, 62%; Russia, 17%; Venezuela, 6%; Mexico, 3%; and other, 12%.

<u>Tariff</u> : Item	Number	Normal Trade Relations (NTR) <u>12/31/98</u>	Non-NTR⁵ <u>12/31/98</u>
Unwrought (in coils) Unwrought (other than	7601.10.3000	2.6% ad val.	18.5% ad val.
aluminum alloys) Waste and scrap	7601.10.6000 7602.00.0000	Free Free	11.0% ad val. Free.

Depletion Allowance: None.1

Government Stockpile:

Stockpile Status—9-30-98 ⁶					
Material	Uncommitted inventory	Committed inventory	Authorized for disposal	Disposal plan FY 1998	Disposals FY 1998
Aluminum	—	_	_	9	9

ALUMINUM

Events, Trends, and Issues: Domestic primary aluminum production increased slightly in 1998 as some previously idled capacity was brought back on-stream. Idled production capacity at the Reynolds Metals Co. smelters in Massena, NY, Longview, WA, and Troutdale, OR, was gradually reactivated during the year.⁷ However, as of the beginning of October, approximately 470,000 tons of annual domestic capacity remained closed.

In a joint press release issued at the end of July, the Aluminum Company of America (Alcoa) and Alumax Inc. announced that the Alumax stockholders approved the company's merger with Alcoa effective immediately. The combined company would have approximately 100,000 employees and would operate in 250 locations in 30 countries.

U.S. imports for consumption increased significantly in 1998. Russia remained second only to Canada as a major shipper of aluminum materials to the United States, and the level of its ingot shipments increased dramatically during the first half of the year reaching levels equivalent to those for all of 1997.

The price of primary aluminum ingot in the United States trended downward during the first part of 1998. In January, the average monthly U.S. market price for primary ingot quoted by Platt's Metals Week was 71.9 cents per pound; by August the price had fallen to 63.3 cents per pound. Prices on the London Metal Exchange (LME) followed the trend of U.S. market prices. The monthly average LME cash price for August was 59.5 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, decreased from a 55- to 56-cent-per-pound range at the beginning of the year to a 44- to 45-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. Despite the economic crises in Asia, aluminum demand in the United States and Western Europe remained relatively strong. Inventories of metal held by producers, as reported by the International Primary Aluminium Institute, and inventories held by the LME fluctuated during the year with some indications that an upward trend was possible during the latter half of the year.

World Smelter Production and Capacity:

<u></u>	Production		Yearend capacity		
	<u>1997</u>	<u>1998°</u>	<u>1997</u>	<u>1998</u>	
United States	3,600	3,700	4,190	4,190	
Australia	1,500	1,580	1,550	1,740	
Brazil	1,200	1,200	1,220	1,220	
Canada	2,330	2,340	2,330	2,360	
China	2,000	2,200	2,380	2,580	
France	390	420	430	430	
Norway	919	950	953	988	
Russia	2,910	2,960	2,970	2,970	
South Africa	660	660	666	666	
Venezuela	640	600	638	639	
Other countries	5,290	5,550	6,730	6,970	
World total (rounded)	21,400	22,200	24,100	24,800	

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.

<u>Substitutes</u>: 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 and Alumina.

²Less than ¹/₂ unit.

³Domestic primary metal production + recovery from old aluminum scrap + net import reliance.

⁴Defined as imports - exports + adjustments for Government and industry stock changes.

⁵See Appendix B.

⁶See Appendix C for definitions.

⁷Reynolds Metals Co, 1998, Reynolds Metals Co. reports first-quarter results: Richmond, VA, Reynolds Metals Co. press release, April 16, 1998, 5 p.

U.S. Geological Survey, Mineral Commodity Summaries, January 1999