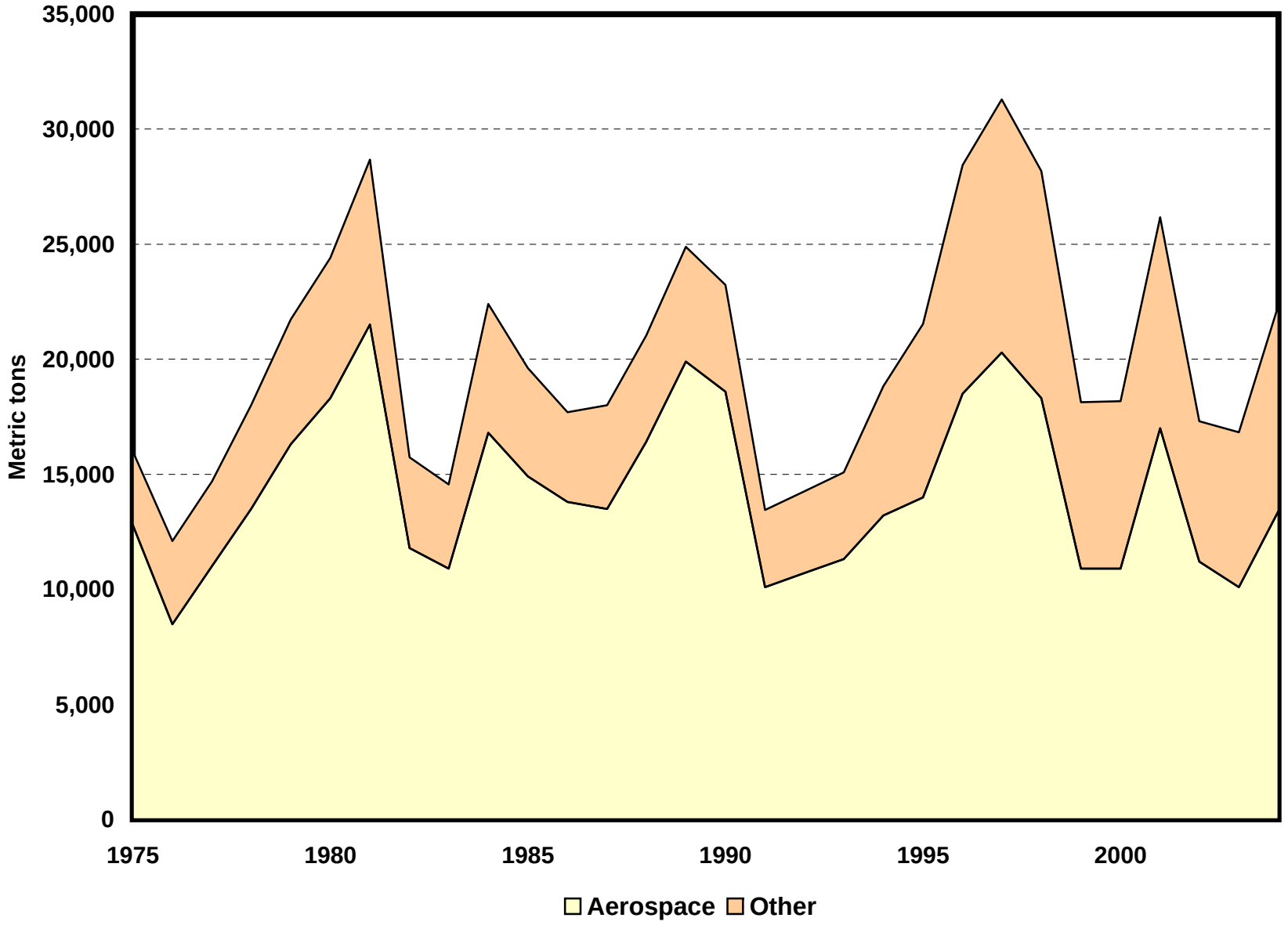
TITANIUM SPONGE METAL END-USE STATISTICS[1]
U.S. GEOLOGICAL SURVEY
[Metric tons of titanium sponge metal content]
Last modification: January 26, 2006

Year	Aerospace	Other	Apparent consumption
1975	12,800	3,200	16,000
1976	8,470	3,630	12,100
1977	11,000	3,690	14,700
1978	13,500	4,500	18,000
1979	16,300	5,430	21,700
1980	18,300	6,110	24,400
1981	21,500	7,170	28,700
1982	11,800	3,930	15,700
1983	10,900	3,650	14,600
1984	16,800	5,610	22,400
1985	14,900	4,720	19,600
1986	13,800	3,890	17,700
1987	13,500	4,500	18,000
1988	16,400	4,620	21,000
1989	19,900	4,980	24,900
1990	18,600	4,640	23,200
1991	10,100	3,350	13,400
1992	10,700	3,550	14,200
1993	11,300	3,780	15,100
1994	13,200	5,640	18,800
1995	14,000	7,530	21,500
1996	18,500	9,940	28,400
1997	20,300	11,000	31,300
1998	18,300	9,870	28,200
1999	10,900	7,240	18,100
2000	10,900	7,280	18,200
2001	17,000	9,170	26,200
2002	11,200	6,100	17,300
2003	10,100	6,720	16,800
2004	13,400	8,960	22,400

[1]Compiled by D.A. Buckingham and J. Gambogi.

End Uses of Titanium Sponge Metal



Titanium Sponge Metal End-Use Worksheet Notes

Data Source
The sources of data for the titanium sponge metal end-use worksheet are the Commodity Data Summaries and the Mineral Commodity Summaries (MCS), annual mineral statistics publications of the U.S. Bureau of Mines and the U.S. Geological Survey; and the Minerals Yearbook (MYB), an annual collection, compilation, and analysis of mineral industry data published by the U.S. Bureau of Mines and the U.S. Geological Survey.

End Use
End use is defined as the use of the mineral commodity in a particular industrial sector or product. End-use estimates are derived by applying percentages of industrial sector mill shipments as reported in the MCS to apparent consumption as reported in the MYB. Consumption is limited to titanium sponge used to produce titanium metal products. Titanium used in the production of steel and other alloys is primarily derived from scrap metal.

For titanium sponge metal, end-use categories are aerospace and other uses. The aerospace category includes components for air and space vehicles, such as air frames and engine parts. The other uses category includes armor, chemical processing, marine, medical, power generation, and sporting goods. No quantitative detail is available for these applications.

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

References
U.S. Bureau of Mines, 1975–77, Commodity Data Summaries, 1975–77.
U.S. Bureau of Mines, 1977–96, Minerals Yearbook, v. I, 1975–94.
U.S. Bureau of Mines, 1978–95, Mineral Commodity Summaries, 1978–95.
U.S. Geological Survey, 1997–2006, Minerals Yearbook, v. I, 1995–2004.
U.S. Geological Survey and U.S. Bureau of Mines, 1996, Mineral Commodity Summaries, 1996.

Recommended Citation Format:
(1) If taken from CD version:
U.S. Geological Survey, [year of last update, e.g., 2005], [Mineral commodity, e.g., Gold] statistics, *in* Kelly, T.D., and Matos, G.R., comps., Historical statistics for mineral and material commodities in the United States: U.S. Geological Survey Data Series 140, one CD-ROM. (Also available online at http://pubs.usgs.gov/ds/2005/140/.)

(2) If taken from online version:
U.S. Geological Survey, [year of last update, e.g., 2005], [Mineral commodity, e.g., Gold] statistics, *in* Kelly, T.D., and Matos, G.R., comps., Historical statistics for mineral and material commodities in the United States: U.S. Geological Survey Data Series 140, available online at http://pubs.usgs.gov/ds/2005/140/. (Accessed [date].)

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