

# Appendix 11A. The 100 largest arms-producing companies, 2002

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## I. Selection criteria and sources of data

Table 11A lists the world's 100 largest arms-producing companies (excluding China), ranked by their arms sales in 2002. The table contains information on their arms sales in 2001 and 2002, and their total sales, profit and employment in 2002. It includes public and private companies, but excludes manufacturing or maintenance units of the armed services. Only companies with manufacturing activities in the field of military goods and services are listed, not holding or investment companies. Chinese companies are excluded because of the lack of data. Companies from other countries might also have been included in the lower end of the list had sufficient data been available.

Publicly available information on arms sales and other financial and employment data of the arms industry worldwide is limited. The sources of data for table 11A.1 include the following: company annual reports and Internet sites, a questionnaire sent by SIPRI to over 200 companies as well as corporation news published in the business sections of newspapers, military journals and by Internet news services specializing in military matters. Press releases, marketing reports, government publications of prime contract awards and country surveys were also consulted. In the absence of data from these sources, estimates have been made by SIPRI. The scope of the data and the geographical coverage are largely determined by the availability of information. All data are continuously revised and updated and may change between different volumes of the SIPRI Yearbook.

## II. Definitions

*Arms sales:* The data on arms sales are not standardized because there is no generally agreed definition of arms sales. The comparability of the company arms sales is therefore limited.

SIPRI defines arms sales as sales of military goods and services to military customers and includes both sales for domestic procurement and for export. Data for arms sales include only sales of goods and services which are designed specifically for military purposes. Excluded are sales of general-purpose goods (e.g., oil, electricity, office computers, cleaning services, uniforms and boots, but not surveillance and other electronic technology related to weapon systems). Whenever possible, data for

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arms sales include all revenues related to the sale of military equipment, that is, not only for their manufacture but also for their research and development (R&D), maintenance, servicing and repair. Data for parent companies are for consolidated sales, including arms sales of national and foreign subsidiaries.

The data for arms sales are used as an approximation of the annual value of arms production. An exception is made for shipbuilding companies. For these companies there exists a significant discrepancy between the value of annual production and annual sales because of the long lead (production) time of ships and the low production run (number). Annual production values therefore have to be estimated. Most shipbuilding companies are able to provide such estimates of the value of their military production on an annual basis.

Arms sales are estimated by SIPRI for companies that do not report their arms sales, if there is sufficient basis for making an estimate. SIPRI estimates are of different types. In those cases where insufficient information is available about a company's arms sales, SIPRI uses the figure for the total sales of a 'defence' division, although the division may also have some, often unspecified, civil sales. When the company does not report a sales figure for a defence division or similar entity, SIPRI makes its own estimates, based on data on contract awards, information on the company's current arms production programmes and figures provided by company officials in media or other reports.

*Total sales, profits and employment:* Data on total sales, profits and employment are for the entire company, not for the arms-producing sector alone. Profit data are after taxes. Employment data are a year-end figure, except for those companies which publish only a yearly average. All data are presented on the fiscal year basis reported by the company in its annual report.

*Conversion rate:* The period average of market exchange rates of the International Monetary Fund's *International Financial Statistics* is used for conversion from local currencies to US dollars.

### III. New companies in the SIPRI Top 100 list

Arms-producing companies from two countries, Russia and South Korea, have been added to the table since it was last published in 2002. In both countries more information has become publicly available in the past two years.

*Russian companies:* This is the first time that Russian companies have been integrated in the SIPRI list of the 100 largest arms-producing companies, although a separate list of the top 20 Russian companies was provided in *SIPRI Yearbook 2002*.<sup>1</sup> Six companies, with total arms sales of \$2.8 billion, are included in this appendix. If sufficient data had been available, other Russian companies might have been included in the list. The situation in the Russian arms industry is still very fluid, and it is possible that company names will change before or soon after publication of this volume. See appendix 11C in this volume for a discussion of trends in the Russian arms industry.

<sup>1</sup> These data were provided by the Centre for Analysis of Strategies and Technologies (CAST), Moscow, and cited in Weidacher, R., 'Arms industry data', *SIPRI Yearbook 2002: Armaments, Disarmament and International Security* (Oxford University Press: Oxford, 2002), appendix 7, table 7A.3, 'A tentative list of the 20 largest arms-producing companies in Russia, 2000', pp. 364–65.

*South Korean companies:* South Korean companies were included in *The SIPRI Yearbook 1998*.<sup>2</sup> It has not been possible to obtain the required data for subsequent years, but there are now signs of improvement in terms of transparency in the arms industry. The structure of the arms industry in South Korea has changed significantly since it was last included in the SIPRI Top 100 list. The most significant change was the establishment of Korea Aerospace Industries (KAI) in October 1999, which was the result of a merger of the aerospace activities of Daewoo, Samsung and Hyundai. In 1999 a joint venture for military electronics activities, Samsung Thales, was also formed between Samsung Electronics and Thomson-CSF, France.

<sup>2</sup> Data presented in Weidacher, R., 'Arms industry data', *SIPRI Yearbook 1998: Armaments, Disarmament and International Security* (Oxford University Press: Oxford, 1998), appendix 6E, table 6E, 'The 100 largest arms-producing companies in the OECD and developing countries, 1996', pp. 261–66.

**Table 11A.1.** The 100 world largest arms-producing companies (excluding China), 2002

Figures in columns 6, 7, 8 and 10 are in US\$ million, at current prices and exchange rates. Figures in italics are percentages.

1	2	3	4	5	6	7	8	9	10	11	
Rank <sup>a</sup>	2002	2001	Company (parent company)	Country	Sector <sup>b</sup>	Arms sales		Total sales 2002	Col. 6 as % of col. 8	Profit 2002	Employment 2002
						2002	2001				
1	1	1	Boeing	USA	Ac EI Mi	20 500	18 000	54 069	38	492	166 000
2	2	2	Lockheed Martin <sup>c</sup>	USA	Ac EI Mi	18 870	17 860	26 578	71	500	125 000
3	5	3	Northrop Grumman <sup>d</sup>	USA	Ac EI Mi SA/A	17 800	10 580	22 652	79	175	120 000
4	4	4	Raytheon	USA	EI Mi	15 250	14 340	16 760	91	-640	76 400
5	3	3	BAE Systems <sup>e</sup>	UK	A Ac EI Mi SA/A	14 070	14 440	18 233	77	-1 030	96 300
6	6	6	General Dynamics	USA	A EI MV Sh	9 820	7 790	13 829	71	917	53 900
7	7	7	Thales	France	EI Mi SA/A	6 840	5 630	10 451	66	104	60 660
8	8	8	EADS/ <sup>f</sup>	W. Eur.	Ac EI Mi	5 630	5 510	28 139	20	-281	103 970
9	9	9	United Technologies, UTC	USA	EI Eng	4 550	3 800	28 212	16	2 236	155 000
10	11	11	Fimmeccanica <sup>g</sup>	Italy	A Ac EI MV Mi	3 720	2 860	7 351	51	191	44 960
11	18	18	L-3 Communications	USA	EI	3 020	1 720	4 011	75	178	27 000
12	13	13	Science Applications Int'l Corp. <sup>h</sup>	USA	Comp (Oth)	3 000	2 530	5 903	51	246	38 700
13	16	16	Computer Sciences Corporation <sup>i</sup>	USA	Comp (Oth)	2 900	1 770	13 704	21	440	90 000
14	12	12	Rolls Royce	UK	Eng MV	2 850	2 590	8 689	33	80	37 300
15	14	14	Mitsubishi Heavy Industries <sup>j</sup>	Japan	Ac MV Mi Sh	2 780	2 270	20 687	13	274	61 290
S	S	S	Pratt & Whitney (UTC)	USA	Eng	2 490	1 710	7 645	33	0	...
16	15	15	General Electric	USA	Eng	2 200	1 900	131 698	2	14 118	309 000
17	..	..	DCN <sup>k</sup>	France	Sh	2 050	..	2 053	100	111	13 300
S	S	S	MBDA (BAE Systems, UK/ EADS/Fimmeccanica, Italy) <sup>l</sup>	W.Eur.	Mi	1 880	..	1 882	100	0	10 000

18	19	Honeywell International	USA	El	1 830	1 630	22 274	8	-220	108 000
19	17	GKN	UK	Ac MV	1 800	1 730	6 684	27	150	36 050
20	22	United Defense <sup>m</sup>	USA	MV	1 730	1 320	1 725	100	135	7 400
21	20	Rheinmetall	FRG	A El MV SA/A	1 580	1 440	4 302	37	258	25 950
S	S	Rheinmetall DeTec (Rheimm.)	FRG	A El MV SA/A	1 580	1 440	1 578	100	0	8 830
22	23	ITT Industries	USA	El	1 510	1 300	4 985	30	380	38 000
23	24	Textron	USA	Ac El Eng MV	1 390	1 230	10 658	13	-124	49 000
24	28	Smiths	UK	El	1 380	1 080	4 609	30	0	..
25	31	Saab	Sweden	Ac El Mi	1 310	1 060	1 698	77	75	14 040
26	21	Israel Aircraft Industries	Israel	Ac El Mi	1 260	1 320	2 068	61	33	14 400
27	32	Alliant Tech Systems	USA	SA/A	1 250	1 060	2 172	58	124	12 000
28	-	URS Corporation <sup>n</sup>	USA	Comp (Oth)	1 200	0	3 185	38	49	26 000
29	27	Sneema Group	France	Eng	1 160	1 110	6 121	19	100	38 990
30	42	Dassault Aviation Groupe	France	Ac	1 140	730	3 235	35	294	12 170
31	29	Rockwell Collins	USA	El	1 120	1 070	2 492	45	236	14 500
32	34	CEA	France	Oth	1 100	960	2 700	41	-158	15 020
33	37	Goodrich	USA	Comp (Ac)	1 020	840	3 910	26	118	22 900
34	..	KnAAPO <sup>o</sup>	Russia	Ac	960	..	1 008	95	140	20 700
35	36	Harris <sup>p</sup>	USA	El	960	860	1 876	51	83	9 700
36	39	QinetiQ <sup>q</sup>	UK	Comp (Oth)	930	810	1 167	80	15	9 380
37	46	DaimlerChrysler, DC <sup>r</sup>	FRG	Eng	920	680	140 771	1	4 440	365 570
38	52	General Motors, GM	USA	El Eng MV Mi	900	540	186 763	..	1 736	..
S	S	GM Canada (GM, USA) <sup>s</sup>	Canada	Eng MV	900	540	..	..	0	..
39	33	Kawasaki Heavy Industries	Japan	Ac Eng Mi Sh	880	1 000	9 886	9	104	28 640
40	41	Elbit Systems	Israel	El	860	760	860	100	50	5 000
41	43	Jacobs Engineering Group	USA	Comp (Oth)	840	730	4 556	18	110	21 930
42	40	Singapore Technologies, ST	Singap.	Ac El MV SA/A Sh	830	800	..	..	0	..
S	S	ST Engineering (ST)	Singap.	Ac El MV SA/A Sh	830	800	1 463	57	185	11 410
43	45	Rafael	Israel	SA/A Oth	760	710	762	100	28	5 000
44	44	GIAT Industries	France	A MV SA/A	730	710	731	100	-111	6 250
45	51	Titan <sup>t</sup>	USA	Comp (Oth)	730	550	1 392	52	-271	9 900

1	2	3	4	5	6	7	8	9	10	11	
Rank	2002	2001	Company	Country	Sector	Arms sales		Total sales 2002	Col. 6 as % of col. 8	Profit 2002	Employment 2002
						2002	2001				
46	58	FIAT	Italy	Eng MV SA/A	720	490	..	..	0	..	
47	26	Ordnance Factories <sup>44</sup>	India	A SA/A	690	1 130	778	88	0	..	
48	59	VT Group	UK	Sh	660	490	848	78	4	7 930	
49	49	SAGEM Groupe <sup>45</sup>	France	El	620	610	2 601	24	72	12 100	
50	55	Korea Aerospace Industries <sup>46</sup>	S. Korea	Ac	610	510	761	80	13	3 270	
51	56	DRS Technologies	USA	El	610	510	676	90	30	3 750	
52	38	Mitsubishi Electric	Japan	El Mi	590	830	29 101	2	-94	..	
53	68	Oshkosh Truck	USA	MV	590	420	1 744	34	60	6 100	
54	57	Anteon <sup>x</sup>	USA	Comp (Oth)	580	500	826	70	29	5 700	
55	50	Krauss-Maffei Wegmann	FRG	MV	570	600	569	100	0	..	
56	53	EDS <sup>y</sup>	USA	Oth	570	530	21 502	3	1 116	137 000	
57	47	Ishikawajima-Harima	Japan	Eng Sh	550	670	8 127	7	-77	23 580	
58	54	Samsung <sup>z</sup>	S. Korea	A El MV Mi Sh	550	520	..	..	0	..	
59	63	Cobham	UK	Comp (Ac El)	540	460	1 103	49	68	7 910	
S	S	FIAT Avio (FIAT) <sup>aa</sup>	Italy	Eng SA/A	530	310	1 444	37	109	5 050	
60	60	Diehl	FRG	Mi SA/A	510	470	1 349	38	0	9 830	
61	61	Hindustan Aeronautics	India	Ac Mi	510	470	642	80	80	..	
62	..	Irkut <sup>o</sup>	Russia	Ac	510	..	562	90	11	15 500	
63	84	Veridian <sup>bb</sup>	USA	Comp (Oth)	500	330	1 016	49	-30	7 100	
64	..	Aerokosmicheskoe Oboron. <sup>o</sup>	Russia	El	480	..	530	90	23	42 500	
S	S	MTU Friedrichshafen (DC)	FRG	Eng	480	320	1 198	40	0	6 690	
[65]	[78]	ThyssenKrupp, TK	FRG	Sh	..	..	34 536	..	203	191 250	
S	S	ThyssenKrupp Marine (TK)	FRG	Sh	..	..	857	..	0	3 120	
66	64	RUAG	Switzerl.	A Ac Eng SA/A	470	450	645	72	28	4 540	
67	86	Fincantieri <sup>cc</sup>	Italy	Sh	460	320	2 059	23	75	9 480	

68	48	Devonport Management <sup>fd</sup>	UK	Sh	450	620	563	80	19	5 270
69	65	Stewart & Stevenson	USA	MV	450	430	1 176	38	-7	3 600
70	66	The Aerospace Corporation <sup>ee</sup>	USA	Comp (Oth)	450	430	506	89	0	..
71	67	Babcock International Group	UK	Sh	440	420	636	68	12	6 910
72	82	CACI International	USA	El	430	330	682	64	31	5 520
73	76	ManTech International <sup>ff</sup>	USA	Oth	430	370	500	87	19	4 440
S	S	MTU Aero Engines (DC)	FRG	Eng	430	360	2 085	21	0	8 380
74	72	Mitre <sup>gg</sup>	USA	Oth	420	390	740	57	0	..
S	S	Samsung Techwin (Samsung)	S. Korea	A El Eng MV	420	430	1 147	36	31	3 700
75	80	Bharat Electronics	India	El	410	330	516	79	54	13 750
76	75	Toshiba	Japan	El Mi	400	370	43 018	1	-2 026	176 400
77	70	AM General Corporation <sup>hh</sup>	USA	MV	400	400	550	73	10	1 560
78	-	Vertex Aerospace <sup>ii</sup>	USA	Comp (Ac)	400	0	..	..	0	..
79	74	CAE	Canada	El	390	380	720	54	75	..
80	62	NEC	Japan	El	390	470	37 443	1	-196	145 810
81	89	SEPI	Spain	Sh	390	290	..	..	0	..
S	S	Izar (SEPI) <sup>jj</sup>	Spain	Sh	390	290	1 446	27	-114	10 990
82	83	Engineered Support Systems	USA	El	380	330	408	93	24	2 410
83	69	Israel Military Industries	Israel	A MV SA/A	360	400	361	100	0	3 500
84	88	Indra	Spain	El	360	290	822	43	54	6 420
85	90	Tenix	Australia	El SA/A Sh	350	280	451	78	0	3 400
S	S	Elisra	Israel	El	350	300	363	96	0	..
86	-	Alvis	UK	MV Oth	340	220	339	100	15	2 800
87	73	Silicon Graphics <sup>kk</sup>	USA	Comp (Oth)	340	390	1 341	25	-46	4 440
88	94	Kongsberg Gruppen	Norway	El Mi SA/A	330	250	874	38	27	4 210
S	S	ADI (Tenix/Thales, France)	Australia	El SA/A Sh	330	320	394	84	0	2 500
89	..	Ufimskoe MPO <sup>o</sup>	Russia	Eng	320	..	341	95	54	21 100
90	79	Denel	S. Africa	A Ac El MV Mi SA/A	320	350	415	77	-7	10 880
91	96	Ultra Electronics	UK	El	320	250	391	81	27	2 400
92	92	Cubic Corporation	USA	Comp (El Oth)	310	280	560	56	29	4 500

1	2	3	4	5	6	7	8	9	10	11	
Rank	2002	2001	Company	Country	Sector	Arms sales		Total sales 2002	Col. 6 as % of col. 8	Profit 2002	Employment 2002
						2002	2001				
93	S	93	Integrated Defense Technologies <sup>d</sup>	USA	EI	300	260	304	100	-4	2 100
94	-	87	Moog	USA	Comp (EI Mi)	300	180	718	42	38	4 820
95	87	87	Komatsu	Japan	MV SA/A	290	310	..	..	0	..
96	-	85	EDO	USA	EI	290	220	329	88	11	1 930
97	85	85	Bombardier	Canada	EI Mi	280	320	15 080	2	-392	80 000
98	..	..	MiG <sup>c</sup>	Russia	Ac	270	..	285	95	28	14 500
99	..	..	Uralvagonzavod <sup>d</sup>	Russia	MV	270	..	475	57	44	31 900
S	S	S	Samsung Thales (Thales, France/Samsung, S. Korea)	S. Korea	EI	260	190	258	100	9	1 150
S	97	97	United States Marine Repair (United Defense)	USA	Comp (Sh)	260	250	255	100	0	..
100	99	99	SMA	France	Comp (Ac)	230	220	234	100	-3	3 330

<sup>a</sup> Companies are ranked according to the value of their arms sales in 2002. Companies with a rank designation in square brackets [ ] are ranked according to a rough estimate of arms sales, in which case there is a (.) in the column for arms sales. Companies with the designation S in the column for rank are subsidiaries. A dash (-) in the column for rank designation in 2001 indicates either that the company did not produce arms sales in 2001, or that it did not exist in 2001 as it was structured in 2002, in which case there is a zero (0) in column 7, or that it did not rank among the 100 largest companies in 2001. For companies that existed in 2001 but for which arms sales data are unavailable, there is a (.) in the column for rank designation. Company names and structures are listed as they were on 31 Dec. 2002. Information about subsequent changes is provided in these footnotes.

<sup>b</sup> Key to abbreviations: A = artillery, Ac = aircraft, EI = electronics, Eng = engines, Mi = missiles, MV = military vehicles, SA/A = small arms/ammunition, Sh = ships, and Oth = other. Comp ( ) = components of the product within the parentheses. It is used only for companies that do not produce any final systems.

<sup>c</sup> Data for Lockheed Martin include management fees from the US Department of Energy for the management of nuclear weapon programmes.

<sup>d</sup> Data for Northrop Grumman are pro-forma sales as if the acquisition of TRW had occurred on 1 Jan. 2002. TRW was acquired on 12 Dec. 2002.



<sup>e</sup> Data for BAE Systems arms sales are for total non-commercial sales, although it is known that some elements in its defence divisions are civilian in nature, and that some elements in the commercial divisions are military in nature.

<sup>f</sup> The European Aeronautic Defence and Space Company (EADS) is 30.1% owned by DaimlerChrysler (Germany), 30.1% by Lagardère (France) together with French financial institutions and Sogetra (French state holding company), and 5.5% by SEPI (Spanish state holding company). EADS is registered in the Netherlands.

<sup>g</sup> For Finmeccanica figures, Marconi Selenia Communications are included for 5 months, and Aermacchi is not included.

<sup>h</sup> Science Applications International Corporation is a provider of information technology (IT) services and products to defence ministries. Figures for arms sales are for total sales to defence ministries, an unknown share of which is for military applications.

<sup>i</sup> Data for Computer Sciences Corporation are pro-forma sales as if the acquisition of Dyncorp had occurred on 1 Apr. 2002. Dyncorp was acquired on 7 Mar. 2003. Computer Sciences Corporation is a provider of IT services and products to defence ministries. Figures for arms sales are for total sales to defence ministries, an unknown share of which is for military applications.

<sup>j</sup> For Japanese companies figures in the arms sales column represent new military contracts rather than arms sales.

<sup>k</sup> Prior to 2002 DCN reported the value of their contracts once they were completed (arms sales). Starting in 2002, they report at each stage of the work undertaken (arms production value). Therefore arms sales data for 2001 have not been shown because the figures are not comparable.

<sup>l</sup> MBDa was established in Dec. 2001 through the merger of Matra BAe Dynamics, EADS-Aérospatiale Matra Missiles and the missile activities of Alenia Marconi Systems. The company is owned 37.5% by BAE Systems, 37.5% by EADS and 25% by Finmeccanica.

<sup>m</sup> United Defense is owned by the private investment company The Carlyle Group.

<sup>n</sup> Data for URS Corporation are pro-forma sales as if the acquisition of EG&G and Lear Siegler had occurred on 1 Nov. 2001. EG&G and Lear Siegler were acquired in Aug. 2002.

<sup>o</sup> This is the first year that Russian companies have been integrated into the SIPRI list of arms-producing companies. There may be other companies that should be in the list, but insufficient data is available. The situation in the Russian arms industry is still very fluid, and company names are changing as they are restructured.

<sup>p</sup> Harris is a provider of IT services and products to defence ministries. Figures for arms sales are for total sales to defence ministries, an unknown share of which is for military applications.

<sup>q</sup> QinetiQ was created on 1 July 2001 out of a major part of the Defence Evaluation and Research Agency (DERA) of the British Ministry of Defence (MOD). Data for 2001 are for 9 months only. In Feb. 2003 the British Government sold a 33.8% share in the company to the investment company The Carlyle Group, USA. The British Government maintained a 62.5% share.

<sup>r</sup> Data for DaimlerChrysler arms sales are for the arms-producing activities of MTU Aero and MTU Friedrichshafen but exclude the 30.1% share of DaimlerChrysler in EADS.

<sup>s</sup> General Motors (GM) Defense Canada was the principal arms-producing unit of General Motors in 2002. In Mar. 2003 it was acquired by General Dynamics.

<sup>t</sup> Titan is a provider of IT services and products to defence ministries. Figures for arms sales are for total sales to defence ministries, an unknown share of which is for military applications.

<sup>u</sup> Data for Ordnance Factories total sales is estimated based on data for the period Apr.–Dec. 2002. Data for arms sales in 2002 are based on the arms sales share for 2001.

<sup>v</sup> Data for SAGEM arms sales are based on the company's reported 'aeronautics and defence' sales, and exclude their primarily civilian 'security' sales.

<sup>w</sup> Korea Aerospace Industries (KAI) was established in Oct. 1999 through the merger of the aerospace activities of Samsung, Daewoo and Hyundai. The subsidiaries and successor (Daewoo) of these companies, Samsung Technin, Daewoo Heavy Industries & Machinery and Hyundai Motor Company each own 28.1% of the shares of KAI, and a number of South Korean banks hold the remaining 15.7% share.

<sup>x</sup> Anteon is a provider of IT services and products to defence ministries. Figures for arms sales are for total sales to defence ministries, an unknown share of which is for military applications.

<sup>y</sup> EDS is a provider of IT services and products to defence ministries. Figures for arms sales are for total sales to defence ministries, an unknown share of which is for military applications.

<sup>z</sup> Arms sales data for Samsung are for the arms sales of Samsung Technin in addition to 50% of the sales of Samsung Thales.

<sup>aa</sup> In July 2003 FIAT Avio was acquired by The Carlyle Group (70%) and Finmeccanica (30%) and renamed Avio SpA.

<sup>bb</sup> Data for Veridian are pro-forma sales as if the acquisition of Signal Corporation had occurred on 1 Jan. 2002. Signal Corporation was acquired in Sep. 2002. Veridian was acquired by General Dynamics in 2003. Veridian is a provider of IT services and products to defence ministries. Figures for arms sales are for total sales to defence ministries, an unknown share of which is for military applications.

<sup>cc</sup> Fincantieri is owned by Fintecna, which was formed in Nov. 2002 from the Italian state holding company Institute for Industrial Reconstruction (IRI), which had been in a process of liquidation since 2000.

<sup>dd</sup> Devonport Management is owned by Kellogg Brown&Root, a subsidiary of Halliburton, USA.

<sup>ee</sup> The Aerospace Corporation operates Federally Funded Research and Development Centers (FFRDC) for the US Department of Defense.

<sup>ff</sup> ManTech International is a provider of IT services and products to defence ministries. Figures for arms sales are for total sales to defence ministries, an unknown share of which is for military applications.

<sup>gg</sup> Mitre operates Federally Funded Research and Development Centers (FFRDC) for the US Department of Defense.

<sup>hh</sup> AM General Corporation is owned by Renco. Data for 2002 are based on available data for 2001.

<sup>ii</sup> Vertex Aerospace (formerly Raytheon Aerospace) was acquired by the investment company Veritas Capital in June 2001. The company was renamed Vertex Aerospace in June 2003. Vertex was then acquired by L-3 Communications in Dec. 2003.

<sup>jj</sup> Izar arms sales share for 2002 is based on available data for 2001.

<sup>kk</sup> Silicon Graphics is a provider of IT services and products to defence ministries. Figures for arms sales are for total sales to defence ministries, an unknown share of which is for military applications.

<sup>ll</sup> Integrated Defense Technologies is owned by the investment company Veritas Capital.