# **Appendix 5A.** The SIPRI Top 100 arms-producing companies, 2009

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## I. Introduction

The SIPRI Top 100 lists the world's 100 largest arms-producing companies (excluding those based in China), ranked by their arms sales. It is a unique data set that allows analysis of developments in worldwide arms production in terms of major arms-producing companies and their adjustments to political and economic contexts and the resulting industrial structures.

Section II of this appendix discusses the main trends revealed by the Top 100 for 2009. Section III presents the Top 100 itself, including information on each company's arms sales in 2008 and 2009, and total sales, profit and employment in 2009 alongside details of the sources and methods used in its compilation.

### II. Trends in the SIPRI Top 100

Despite the ongoing global economic recession, the total arms sales of the SIPRI Top 100 arms-producing companies in 2009 increased by \$14.8 billion to reach \$400.7 billion, a real increase of 8 per cent over 2008. The total arms sales of the Top 100 have increased by a total of 58 per cent in real terms since 2002 (see table 5A.1).

A year after its onset, the 2008 financial crisis had a mixed impact on individual companies but did not dampen arms sales overall in 2009.<sup>1</sup> In general, the arms sales of companies in the Top 100 remained high, contributing to increases in total national arms sales in 2009 (see table 5A.2). Some countries' arms industries continued to grow while their overall economic growth faltered in 2009. For example, Turkey's arms sales continued to grow—sales by all arms companies, large and small, grew slightly to \$2.3 billion—even as its economy contracted by 4.7 per cent in 2009.<sup>2</sup> United States companies dominate the Top 100, and the US market remains the target for many companies since US

<sup>1</sup> On the arms industry's response to the financial crisis see Jackson, S. T., 'Arms production', *SIPRI Yearbook 2010*, pp. 265–70.

\* Arms industry data was supplied by the SIPRI Arms Industry Network: Vincent Boulanin (École des hautes études en sciences sociales, Paris), Gülay Günlük-Şenesen (Istanbul University), Shinichi Kohno (Mitsubishi Research Institute, Tokyo), Valerie Miranda (Istituto Affari Internazionali, Rome), Pere Ortega (Centre d'Estudis per la Pau J. M. Delàs, Barcelona) and Paek Jae Ok (Korea Institute for Defense Analyses, Seoul).

<sup>&</sup>lt;sup>2</sup> Turkish Defence Industry Manufacturers Association (SASAD), 'Turkish defence industry survey', [n.d.], <http://www.sasad.org.tr/en/aday-uyeler/>; 'Turkish defense industry grows despite crisis', *Today's Zaman*, 10 July 2010; and Invest in Turkey, 'Economic outlook', <http://www.invest.gov.tr/en-US/turkey/factsandfigures/Pages/Economy.aspx>.

	2002	2003	2004	2005	2006	2007	2008	2009	2002-2009
Arms sales at curren	t price	s and e	exchan	ge rate	es				
Total (\$ b.)	196	235	274	289	312	347	387	401	
Change (%)		20	17	5	8	11	12	4	105
Arms sales at consta	nt (20	09) pri	ces an	d exch	ange r	ates			
Total (\$ b.)	254	286	313	320	335	350	373	401	
Change (%)		13	9	2	5	4	7	8	58

**Table 5A.1.** Trends in arms sales of companies in the SIPRI Top 100arms-producing companies, 2002–2009

*Note*: The figures in this table refer to the companies in the SIPRI Top 100 in each year, which means that they refer to a different set of companies each year, as ranked from a consistent set of data. In particular, the figures shown above for 2008 differ from those in table 5A.2.

Source: Table 5A.4; and the SIPRI Arms Industry Database.

arms procurement is expected to remain stable while procurement funding is expected to rise in the next few years.

In some cases arms producers reduced their workforces in 2009. For example, Boeing laid off 5100 employees following a restructuring in its Future Combat Systems and Ground-based Midcourse Defense programmes and a slowdown in sales of civilian aircraft.<sup>3</sup> Workforce reductions by other armsproducers were primarily due to drops in civil sales. For instance, Textron decreased its workforce by 25 per cent in 2009 because of a drop in demand for civilian aircraft.<sup>4</sup> Employment cutbacks were by no means universal as many arms-producing companies in a variety of sectors and regions increased employment in 2009. Figures for 2010 may reveal further employment cutbacks by companies in countries that have altered their procurement priorities because of proposed reductions in military spending.<sup>5</sup> For example, in June 2010 Lockheed Martin laid off 1200 employees to rebalance the company's mix of skills in part in response to changing customer (i.e. US Government) requirements.<sup>6</sup> Lockheed Martin's total employee count had already fallen by 4.1 per cent in 2009. However, in some cases spending on certain arms projects has increased, and so the layoffs are unlikely to be industry-wide.

<sup>3</sup> Employment figures are for total company employee counts, not just for those employees engaged in arms production. The latter often comprises a small share of total employment in companies, such as General Electric, with large civilian sectors. Total employment figures in 2009 appear in table 5A.4. Figures on employment trends are based on data in the SIPRI Arms Industry Database for parent companies for which figures are available.

<sup>4</sup> Textron Financial Corporation, Form 10-K Annual Report under Section 13 or 15(d) of the Securities and Exchange Act of 1934 for the Fiscal Year Ended January 2, 2010 (US Securities and Exchange Commission: Washington, DC, 25 Feb. 2010).

<sup>5</sup> See chapter 4, section II, in this volume.

<sup>6</sup> Hedgpeth, D., 'Lockheed Martin to cut 1,200 jobs as Pentagon work slows', *Washington Post*, 7 Jan. 2010.

# **Table 5A.2.** Regional and national shares of arms sales for the SIPRI Top 100arms-producing companies, 2009 compared to 2008

Arms sales figures are in US\$ b., at current prices and exchange rates. Figures do not always add up to totals because of the conventions of rounding. Chinese companies are not included due to a lack of comparable and sufficiently accurate data.

Number of	Region /	Arms sa	les (\$ b.)	Change in sales, 2008	arms 09 (%)	Share of total Top 100 arms sales
companies	country <sup>a</sup>	2009	$2008^b$	Nominal <sup>c</sup>	Real <sup>d</sup>	2009 (%)
46	North America	247.2	230.8	7	8	61.7
45	United States	246.5	230.2	7	7	61.5
1	Canada	0.7	0.7	4	12	0.2
33	Western Europe	120.3	121.3	-1	10	30.0
11	United Kingdom	50.3	49.7	1	20	12.5
6	France	23.0	22.4	3	8	5.7
1	Trans-European <sup>e</sup>	15.9	17.9	-11	-6	4.0
4	Italy	15.5	15.2	2	6	3.9
5	Germany	7.6	8.0	-5	0	1.9
2	Spain	2.9	2.9	1	7	0.7
1	Sweden	2.6	3.0	-12	2	0.7
1	Norway	1.1	0.7	47	61	0.3
1	Switzerland	0.7	0.8	-4	-3	0.2
1	Finland	0.7	0.7	-1	4	0.2
6	Eastern Europe	9.2	10.3	-11	2	2.3
6	Russia <sup>f</sup>	9.2	10.3	-11	2	2.3
10	Other OECD	15.5	15.5	0	0	3.9
4	Japan <sup>g</sup>	6.6	7.0	-5	-13	1.7
3	Israel	6.3	6.3	0	6	1.6
2	South Korea	1.9	1.8	8	22	0.5
1	Turkey	0.6	0.5	31	46	0.2
5	Other non-OECD	8.5	8.0	5	7	2.1
3	India <sup>h</sup>	4.5	4.2	8	8	1.1
1	Kuwait	2.5	2.6	-3	0	0.6
1	Singapore	1.5	1.3	13	16	0.4
100	Total	400.7	385.9	4	8	100

OECD = Organisation for Economic Co-operation and Development.

<sup>*a*</sup> Figures for a country or region refer to the arms sales of the Top 100 companies headquartered in that country or region, including those in its foreign subsidiaries. They do not reflect the sales of arms actually produced in that country or region.

<sup>b</sup> Arms sales figures from 2008 refer to companies in the SIPRI Top 100 for 2009 and not to the companies in the Top 100 from 2008.

<sup>c</sup> This column gives the change in arms sales 2008–2009 in current US dollars.

<sup>d</sup> This column gives the change in arms sales 2008–2009 in constant (2009) US dollars.

<sup>e</sup> The company classified as trans-European is EADS.

<sup>f</sup>Russian arms sales include the 2008 arms sales for UAC subsidiaries reported for 2009.

<sup>g</sup> Figures for Japanese companies are based on contracts with the Ministry of Defence.

<sup>h</sup> Figures for India include a rough estimate for Ordnance Factories.

Source: Table 5A.4.

In 2009 for the first time a Kuwaiti company—the military services company Agility—entered the Top 100 list, at rank 34.<sup>7</sup> Also notable was the drop in the arms sales of some of the largest Russian arms producers even as the Russian Government continued to invest in the industry. A closer analysis on trends in military services companies and the Russian companies in the Top 100 for 2009 follows in the next subsections.

#### **Military services companies**

The Top 100 for 2009 includes 20 companies with arms sales predominantly or entirely in the military services sector. These services include a wide variety of support activities such as after-sales maintenance (MRO), customized hightech software, intelligence services and training, armed security and logistics.<sup>8</sup> Overall, these companies increased their arms sales in 2009, reflecting a continuing trend for governments to outsource roles traditionally delivered by military personnel. An exception was KBR, whose sales fell as a result of the drawdown of US troops in Iraq.<sup>9</sup>

The arms sales of Agility also fell slightly in 2009, to \$2.5 billion. Known as Public Warehousing Corporation until 2006, Agility provides military services to the US military in Iraq, Jordan and Kuwait.<sup>10</sup> However, its relationship with the USA is not untroubled. In November 2009 the US Department of Justice issued an indictment accusing Agility of defrauding the US Army over a period of 41 months in which the company charged \$8.5 billion for goods and services.<sup>11</sup> The company had been in negotiations with the US Government to settle the criminal case out of court, although negotiations stalled. In January 2011 US prosecutors filed a parallel civil suit against the company, alleging that Agility had presented false claims for payment of \$9.8 billion in goods and services.<sup>12</sup> Agility denied the allegations but has been suspended from bidding for new US Government contracts.<sup>13</sup>

Other companies in the Top 100 also provided services in 2009 as part of their wider portfolios, and many of these increased arms sales as a result of increased sales of military services. For example, General Electric increased

<sup>10</sup> Chatterjee, P., Halliburton's Army: How a Well-Connected Texas Oil Company Revolutionized the Way America Makes War (Nation Books: New York, 2009).

<sup>11</sup> Bigg, M., 'US slaps new fraud indictment on Kuwait's Agility', Reuters, 12 Apr. 2010.

<sup>12</sup> Bigg, M., 'US files fresh fraud suit against Kuwait's Agility', Reuters, 7 Jan. 2011.

<sup>&</sup>lt;sup>7</sup> If data had been available, Agility would have appeared at rank 30 in the Top 100 for 2008 as published in *SIPRI Yearbook 2010*. SIPRI data on arms-producing companies is revised on an ongoing basis when improved data becomes available. See section III below.

<sup>&</sup>lt;sup>8</sup> Perlo-Freeman, S. and Sköns, E., 'The private military services industry', SIPRI Insights on Peace and Security no. 2008/1, Sep. 2008, <http://books.sipri.org/product\_info?c\_product\_id=361>; and Jackson (note 1).

<sup>&</sup>lt;sup>9</sup> KBR, Form 10-K Annual Report under Section 13 or 15(d) of the Securities and Exchange Act of 1934 for the Fiscal Year Ended December 31, 2009 (US Securities and Exchange Commission: Washington, DC, 25 Feb. 2010), p. 31.

<sup>&</sup>lt;sup>13</sup> Agility, 'PWC public statement in response to DoJ filing on challenge-of-service', Press release, 21 June 2010, <http://www.agilitylogistics.com/PressReleases/Pages/PWCStatementonDOJFiling. aspx>.

sales in military engines and related services.<sup>14</sup> Jacobs Engineering's increase in arms sales were due to sales of research and development test engineering and other technical services to the US Government.<sup>15</sup> Part of Safran's 57 per cent increase in arms sales came from services, while Kongsberg had more after-sales business.<sup>16</sup> Northrop Grumman had higher sales in its Information Systems and Technical Services segment, as did Boeing in its Training System and Services division.<sup>17</sup>

#### **Russian companies**

Six companies in the Top 100 for 2009 are Russian. Following the recent restructuring in the Russian arms industry, companies that were previously reported as independent entities are now reported as subsidiaries of a parent company. Results for Irkut, MiG and Sukhoi are now grouped under the United Aircraft Corporation (UAC), which ranked 29th in 2009. The United Engine Corporation, another new Russian parent company, entered the Top 100 for 2009 at rank 90.

In 2009 the Russian Government continued to spend on local procurement as a means of reinvigorating its domestic arms industry: it reported spending approximately 970 billion roubles (\$33 billion) on the arms industry as well as providing other support such as credit guarantees.<sup>18</sup> Over the three years 2011–13, the Russian Government plans to spend 329.3 billion roubles (\$10.4 billion) on development of its domestic arms industry.<sup>19</sup> Yet in 2009 the largest Russian companies and subsidiaries reported a decrease in arms sales. Almaz-Antei alone decreased its arms sales by over \$1 billion between 2008 and 2009 and fell from 18th to 23rd place in the SIPRI Top 100.

SIPRI presents arms sales figures in US dollars and calculates nominal yearto-year changes using these dollar-denominated figures (see table 5A.2), which allows cross-country comparisons of company arms sales.<sup>20</sup> However, exchange rate variance can exaggerate changes in dollar terms, and so the real

<sup>14</sup> General Electric (GE), 2009 Annual Report: Reset, Reimagine, Reinvest, Rethink, Research, Relationships, Responsibility, Renew (GE: Fairfield, CT, 2010), p. 35.

<sup>15</sup> Jacobs Engineering Group, Form 10-K Annual Report under Section 13 or 15(d) of the Securities and Exchange Act of 1934 for the Fiscal Year Ended October 2, 2009 (US Securities and Exchange Commission: Washington, DC, 20 Nov. 2009), p. 38.

<sup>16</sup> Kongsberg Gruppen, Kongsberg Annual Report 2009 (Kongsberg: Kongsberg, 2010), p. 5; and Safran, 'Safran reports solid full-year results for 2009 with a recurring operating margin of 6.7% of revenue', Press release, 25 Feb. 2010, <a href="http://safran-group.com/site-safran-en/press-media/pressreleases/2010-698/article/safran-reports-solid-full-year?10315">http://safran-group.com/site-safran-en/press-media/pressreleases/2010-698/article/safran-reports-solid-full-year?10315</a>.

<sup>17</sup> Northrop Grumman, Form 10-K Annual Report under Section 13 or 15(d) of the Securities and Exchange Act of 1934 for the Fiscal Year Ended December 31, 2009 (US Securities and Exchange Commission: Washington, DC, 9 Feb. 2010), p. 36; Boeing Company, Form 10-K Annual Report under Section 13 or 15(d) of the Securities and Exchange Act of 1934 for the Fiscal Year Ended December 31, 2009 (US Securities and Exchange Commission: Washington, DC, 8 Feb. 2010), p. 34.

<sup>18</sup> Jackson (note 1), pp. 268–69; and 'Some 33bn dollars allocated for Russian defence industry in 2009–Putin', Interfax, 18 Nov. 2009.

<sup>19</sup> [The development of the federal target programme on the development of the militaryindustrial complex in the next three years will allocate 329.3 billion roubles], Gazeta.ru, 20 Aug. 2010, <http://www.gazeta.ru/news/business/2010/08/20/n\_1536520.shtml>.

<sup>20</sup> On these calculations and other methods see section III below.

810

800

850

640

**Table 5A.3.** Change in arms sales of Russian companies in the SIPRI Top 100,measured in dollars and roubles, 2008–2009

tilat aj	ppeared among th	e sifki it	op 100 ai	ins-produ	cing comp	ames in Dour 20	008 and 2009.
		Arms s (\$ m.)	ales	Arms sal (m. roub	es les)	Change, 2008	3–2009 (%)
Rank, 2009	Company	2009	2008	2009	2008	Nominal dollar terms	Real rouble terms
23	Almaz-Antei	3 260	4 340	103 370	107 900	-25.0	-14.2
S	Sukhoi	1440	2 040	45 660	50 760	-29.6	-19.4
S	Irkut	1 060	1150	33 680	28 630	-7.8	5.4
66	TRV Corp.	910	1170	28 860	28 980	-22.0	-10.8

Figures in US\$ m. are at current prices and exchange rates. Companies are Russian companies that appeared among the SIPRI Top 100 arms-producing companies in both 2008 and 2009.

Source: SIPRI Arms Industry Database.

Vertolety Rossii

Uralvagonzavod

73

76

terms change calculated in local currency can give a more accurate picture of developments in a national arms industry, especially when domestic sales outweigh exports.

25 780

25 390

21 040

16 000

-4.7

24.3

9.8

42.1

When the year-to-year changes in the arms sales of Russian companies are calculated in real terms in roubles, the decreases are smaller and the increases larger (see table 5A.3). In two cases, companies that had decreased their arms sales in nominal dollar terms in 2009 had increased arms sales in real-terms in roubles. As domestic procurement in Russia increases, the real terms change in roubles will give a more accurate reflection of trends in the domestic arms industry.<sup>21</sup>

# III. The SIPRI Top 100 arms-producing companies, 2009

Table 5A.4 lists the world's 100 largest arms-producing companies (excluding Chinese companies), ranked by their arms sales in 2009—the SIPRI Top 100 for 2009. The companies in the SIPRI Top 100 account for the majority of the global financial value of military goods and services—in particular, high-technology systems and services. Because of a lack of comparable financial data, the SIPRI Top 100 does not cover all arms-producing countries. However, with a few exceptions, the volume of arms production in omitted countries is believed to be relatively small. Chinese companies would almost certainly appear in the Top 100 (and probably in the top 50) if satisfactory data were available. Apart from the omission of China, analysis of the companies in the Top 100 is sufficient to capture the major trends in the global arms industry.

<sup>&</sup>lt;sup>21</sup> See chapter 6, section II, in this volume.

#### Selection criteria and sources of data

The SIPRI Top 100 includes public and private companies but excludes manufacturing or maintenance units of the armed services. Only companies with operational activities in the field of military goods and services are listed, not holding or investment companies. Companies from other countries might also have been included at the lower end of the list had sufficient data been available.

Publicly available information on arms sales and other financial and employment data on the arms industry worldwide are limited. The sources of data for table 5A.4 include company annual reports and websites, a SIPRI questionnaire, and news published in the business sections of newspapers, in military journals and by Internet news services specializing in military matters. Press releases, marketing reports, government publications of contract awards and country surveys are also consulted. Where no data is available 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.

SIPRI data on arms-producing companies is revised on an on-going basis when improved data is available. For this reason, it is not possible to make a strict comparison among editions of the SIPRI Yearbook. In addition, coverage may differ because of problems with obtaining data to make satisfactory estimates for all companies every year. As a result, the data used here on the SIPRI Top 100 for 2008 may differ from that published in *SIPRI Yearbook 2010*, even though the data set used for each edition of the Yearbook is consistent as far as is possible across countries and over time.

#### Definitions

Arms sales are defined by SIPRI as sales of military goods and services to military customers, including both sales for domestic procurement and sales for export. Military goods and services are those which are designed specifically for military purposes and the technologies related to such goods and services. Military goods are military-specific equipment and do not include general purpose goods, such as oil, electricity, office computers, uniforms and boots. Military services are also military-specific. They include technical services, such as information technology, maintenance, repair and overhaul, and operational support; services related to the operation of the armed forces, such as intelligence, training, logistics and facilities management; and armed security in conflict zones. They do not include the peacetime provision of purely civilian services, such as health care, cleaning, catering and transportation, but supply services to operationally deployed forces are included.<sup>22</sup>

This definition of arms sales serves as a guideline; in practice it is difficult to apply. Nor is there any good alternative, since no generally agreed standard definition exists. The data on arms sales in table 5A.4 often reflects only what

 $<sup>^{22}</sup>$  For a more detailed list of the types of activities classified as 'military services' see Perlo-Freeman and Sköns (note 8).

each company considers to be the defence share of its total sales. The comparability of the company arms sales figures given in table 5A.4 is therefore limited.

Data on total sales, profit and employment is for entire companies, not for arms-producing divisions alone. All data is for consolidated sales, including those of national and foreign subsidiaries. The data on profit represents profit after taxes. Employment data is year-end figures except for those companies that publish only a yearly average. All data is presented on the financial year basis reported by the company in its annual report.

#### Calculations

Arms sales are sometimes estimated by SIPRI. In some cases SIPRI uses the figure for the total sales of a 'defence' division, although the division may also have some unspecified civil sales. When the company does not report a sales figure for a defence division or similar entity, estimates can sometimes be made 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.

The data for arms sales is used as an approximation of the annual value of arms production. For most companies this is realistic. The main exception is shipbuilding companies. For these companies there is 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). Some shipbuilding companies provide estimates of the value of their annual production. This data is then used by SIPRI for those companies.

All data is collected in local currency and at current prices. For conversion from local currencies to US dollars, SIPRI uses the International Monetary Fund (IMF) annual average of market exchange rates (as provided in International Financial Statistics). The data in table 5A.4 is provided in current dollars. Changes between years in this data are difficult to interpret because the change in dollar values is made up of several components: the change in arms sales, the rate of inflation and, for sales conducted in local currency, fluctuations in the exchange rate. Sales on the international arms market are often conducted in dollars. Fluctuations in exchange rates thus do not have an impact on the dollar values but affect instead the value in local currency. If the value of the dollar declines, then the company's revenue in local currency falls, and if its production inputs are paid for in local currency—which most often is the case-this has a negative impact on the company's profit margins. Calculations in constant dollar terms are difficult to interpret for the same reasons. Without knowing the relative shares of arms sales derived from domestic procurement and from arms exports, it is impossible to interpret the exact meaning and implications of the arms sales data. This data should therefore be used with caution. This is particularly true for countries with strongly fluctuating exchange rates.

Figures	for arr	ns sales, total sales and profit are in US\$	\$ m. Dots ()	indicate that data is n	ot availal	ole. Secto	r abbrevia	tions are explai	ned below	
$\operatorname{Rank}^{b}$					Arms sal	es	Total	Arms sales	Total	Total
0000	2008	Jun cumo J	Country.	Sector	0000	2008	sales,	as % of total	profit, 2009	employment, 2000
6007	2002	сошрану	Country	Sector	6007	2002	6007	sales, 2009	6007	5002
ı	2	Lockheed Martin	USA	Ac El Mi Sp	33 430	29 880	45 189	74	3 024	$140\ 000$
7	П	BAE Systems	UK	A Ac El MV Mi SA/A Sh	33 250	32 420	34 914	95	-70	000 86
3	3	Boeing	USA	Ac El Mi Sp	32 300	29 200	68 281	47	1312	157 100
4	4	Northrop Grumman	USA	Ac El Mi Ser Sh Sp	27 000	26 090	33 755	80	1 686	120 700
ъ	ъ	General Dynamics	USA	A El MV SA/A Sh	25 590	22 780	31 981	80	2 394	61 700
9	9	Raytheon	USA	El Mi	23 080	21 030	24881	93	1 976	75 000
S	S	BAE Systems Inc. (BAE Systems, UK)	USA	A El MV SA/A	$19\ 280$	19 970	19 276	100	1836	48 020
7	7	EADS	Trans-Eur.	Ac El Mi Sp	15930	17900	59 475	27	-1 060	119510
8	8	Finmeccanica	Italy	A Ac El MV Mi SA/A	$13\ 280$	$13\ 240$	25 244	53	266	73 060
6	6	L-3 Communications	USA	El Ser	$13\ 010$	12 160	15 615	83	106	67 000
10	11	United Technologies	USA	Ac El Eng	11 110	9 980	52920	21	4179	206 700
11	10	Thales	France	A El MV Mi SA/A Sh	$10\ 200$	10 760	17890	57	178	64 290
12	12	SAIC	USA	Ser Comp(MV)	8 030	7 350	10846	74	497	46 200
13	14	Computer Sciences Corp.	USA	Ser	6 050	5710	16 128	37	834	$94\ 000$
14	15	Honeywell	USA	El	5380	5310	30 908	17	2 153	122 000
15	13	$\mathrm{KBR}^d$	USA	Ser	4990	5 730	12 105	41	290	51000
16	25	Safran	France	El	4740	3 020	14 511	33	522	54870
17	16	ITT Corp.	USA	El	4730	5 170	10905	43	637	$40\ 200$
18	22	General Electric	USA	Eng El	4700	3 650	156 783	ŝ	19 339	300 000
19	17	Rolls-Royce	UK	Eng	4  140	4720	15 745	26	3 453	38 500
S	s	Sikorsky (United Technologies)	USA	Ac	3 980	3060	6 318	63	:	:
S	S	Pratt & Whitney (United	USA	Eng	3940	3 550	12 577	31	:	36 000
		Technologies)								

Table 5A.4. The SIPRI Top 100 arms-producing companies in the world excluding China, 2009<sup>a</sup>

$\operatorname{Rank}^{b}$					Arms sa	les	Total	Arms sales	Total	Total
2009	2008	Company <sup>c</sup>	Country	Sector	2009	2008	sales, 2009	as % of total sales, 2009	profit, 2009	employment, 2009
20	19	AM General <sup>e</sup>	USA	MV	3 720	$4\ 040$	:	:	:	:
s	S	MBDA (BAE Systems, UK/	Trans-Eur.	Mi	3610	3 950	3 611	100	330	9 750
		EADS, trans-European/								
		Finmeccanica, Italy)								
21	23	Textron	NSA	Ac El Eng MV	3 570	3 420	10500	34	-31	32 000
22	21	DCNS	France	Sh	3 340	3 660	3 342	100	179	12 200
23	18	Almaz-Antei <sup>f</sup>	Russia	Mi	3 260	$4 \ 340$	3 659	89	:	90 410
s	s	Eurocopter (EADS, trans-Eur.)	France	Ac	3 050	3610	6 347	48	:	:
S	S	CASA (EADS, trans-Eur.)	Spain	Ac	2,900	2510	3 152	92	-268	6350
24	28	Alliant Techsystems	USA	SA/A	2810	2 680	4808	59	279	18000
25	24	Mitsubishi Heavy Industries <sup>g</sup>	Japan	Ac MV Mi Sh	2810	3 040	31430	6	151	67 670
26	20	Navistar	USA	MV	2800	3 900	11 569	24	320	17 900
S	S	AgustaWestland (Finmeccanica)	Italy	Ac	2800	2 370	4833	58	285	10 340
27	27	URS Corp.	USA	El	2 770	2 680	9 249	30	269	45 000
28	37	Oshkosh Corp.	USA	MV	2 770	$2\ 070$	5 295	52	-1 099	12 300
29	I	United Aircraft Corp. <sup>f</sup>	Russia	Ac	2710	:	3 592	75	-656	97 500
30	32	Elbit Systems	Israel	El	2700	2520	2 832	95	215	11 240
31	26	Saab	Sweden	Ac El Mi	2640	3000	3 220	82	91	13 160
32	29	Rheinmetall	Germany	A El MV SA/A	2640	2 660	4750	55	-72	19 770
33	33	Rockwell Collins	USA	El	2580	2370	4470	58	594	19 300
34	30	Agility	Kuwait	Ser	2480	2560	5 922	42	543	32 000
S	S	EADS Astrium (EADS, trans-Eur.)	France	Sp	2 400	$2\ 200$	6 665	36	:	15 000
35	47	DynCorp International <sup>h</sup>	USA	Ser	2300	1860	3 585	64	111	22 300
36	44	Cobham	UK	Comp(Ac El)	2260	1  910	2 929	77	290	11540
37	40	CEA	France	Oth	2160	$2\ 010$	5515	39	350	15 720
38	42	Serco	UK	Ser	$2\ 110$	1950	6 184	34	203	70 000
39	48	CACI International	USA	Ser	2080	1810	2 730	76	95	12 400
40	34	Israel Aerospace Industries	Israel	Ac El Mi	2 030	2 230	2,900	70	61	17 000

11	20	Bahaaali International Crown	1112	sar sh Oth	010 6	0000	7 057	60	160	16 640
i c	×0,		ND.			070 7	704 7	00	40T	040 0T
42	49	Goodrich	USA	Comp(Ac)	$2\ 010$	1 770	6 686	30	597	$24\ 000$
43	46	Navantia	Spain	Sh	1980	1880	2 197	90	-115	5 520
44	53	Mitsubishi Electric <sup>g</sup>	Japan	El Mi	1950	1510	35 837	S	1008	109570
45	45	Hindustan Aeronautics	India	Ac Mi	1950	1  910	2  169	06	359	$34\ 100$
46	51	ManTech International Corp.	USA	Ser	1920	1760	$2\ 020$	95	112	8 000
47	41	Harris	USA	El	1,900	1980	5005	38	38	15400
s	S	Alenia Aeronautica (Finmeccanica)	Italy	Ac	1810	1820	2 713	67	161	8 970
48	35	QinetiQ	UK	Ser	1770	2 170	2 532	70	-99	$13\ 080$
s	S	MBDA France (MBDA, trans-Eur.)	France	Mi	1740	$2\ 130$	1740	100	117	4330
49	55	Indian Ordnance Factories <sup>i</sup>	India	A SA/A	1700	1380	2 124	80	:	101450
50	43	Krauss-Maffei Wegmann <sup>j</sup>	Germany	MV	1630	1950	1 715	95	211	$3\ 150$
51	31	Hewlett-Packard	USA	Ser	1580	2540	114552	I	7 660	$304\ 000$
52	52	Rafael	Israel	Ac Mi SA/A Oth	1570	1530	1600	98	112	6 000
53	50	ThyssenKrupp	Germany	$\operatorname{Sh}$	1550	1760	56 338	S	-2 601	187 500
54	57	ST Engineering (Temasek)	Singapore	Ac El MV SA/A Sh	1450	1280	3813	38	305	$21\ 010$
s	38	Sukhoi (United Aircraft Corp.) <sup>f</sup>	Russia	Ac	1440	2 040	1547	93	8	$28\ 000$
55	36	Groupe Dassault	France	Ac	1360	$2\ 100$	4751	67	438	11 650
56	58	VT Group	UK	Ser Sh	1240	1210	1950	64	328	:
57	69	Nexter	France	A MV SA/A	1230	850	1232	100	196	2 690
s	S	Thales Air Defence (Thales, France)	UK	Mi	1210	1200	1 212	100	115	:
58	62	Samsung	S. Korea	A El MV Sh	1 170	$1\ 010$	172 382	1	13 833	275000
59	54	Kawasaki Heavy Industries <sup>g</sup>	Japan	Ac Eng Mi Sh	$1\ 110$	1480	12 541	9	-14	$32\ 300$
60	61	GKN	UK	Comp(Ac)	$1\ 110$	1 070	6 578	17	-53	$38\ 200$
61	73	Shaw Group <sup>k</sup>	USA	Ser	$1\ 100$	800	7 230	15	15	28 000
s	S	<b>BAE Systems Australia</b>	Australia	Ac Comp(El) Sh	$1\ 090$	$1 \ 090$	1 092	100	:	6 100
		(BAE Systems, UK)								
62	77	Kongsberg Gruppen	Norway	El Mi SA/A	1 090	740	2 197	50	132	5420
63	65	Diehl	Germany	Mi SA/A	1 070	940	3063	35	30	$12\ 210$
s	60	Irkut Corp. (United Aircraft Corp.) <sup>f</sup>	Russia	Ac	1060	1150	1160	16	52	12~780
64	56	Force Protection	USA	MV	980	1330	980	100	29	1 170
65	63	Indra	Spain	El	940	1 000	3 490	27	272	26 180

Rank <sup>b</sup>					Arms sa	les	Total	Arms sales	Total	Total
2009	2008	Company <sup>c</sup>	Country	Sector	2009	2008	zales, 2009	as % 01 101a1 sales, 2009	prom,	ешрюушень, 2009
s	s	Samsung Techwin (Samsung)	S. Korea	A El Eng MV	930	750	2 070	45	221	6 070
66	80	Moog	USA	Comp(El Mi)	920	720	1849	50	85	10 010
67	59	TRV Corp. <sup>f</sup>	Russia	Mi	910	1 170	988	92	65	23 320
68	85	Jacobs Engineering Group <sup>1</sup>	USA	Ser	880	670	11 467	8	400	53 200
69	68	Precision Castparts Corp.	USA	Comp(Ac)	880	890	5 487	16	923	18 100
S	S	Thales Nederland (Thales, France)	Netherl.	El	880	770	880	100	56	:
70	67	Bharat Electronics	India	El	870	006	961	06	154	11 770
71	87	Fincantieri	Italy	$\operatorname{sh}$	860	670	4540	19	-89	10530
72	72	VSE Corp.	USA	Ser	840	830	1 015	83	24	2 530
73	70	Vertolety Rossii (OPK Oboronprom) <sup>f</sup>	Russia	Ac	810	850	1 817	45	173	37 930
s	s	Selex Communications	Italy	Comp(El Oth)	810	006	1015	80	6	4280
		(Finmeccanica)								
74	78	Ultra Electronics	UK	El	810	730	1014	80	122	4160
75	71	Meggitt	UK	Comp(Ac)	810	830	1793	45	217	7 200
76	60	$\mathbf{Uralvagonzavod}^f$	Russia	MV	800	640	1143	70	-226	30  490
S	I	MiG (United Aircraft Corp.) <sup>f</sup>	Russia	Ac	780	:	783	66	-332	11 590
S	S	Selex Galileo (Finmeccanica) <sup>m</sup>	Italy	El	770	730	886	87	40	2 770
77	64	$\operatorname{NEC}^g$	Japan	El	770	950	38 294	2	122	$142\ 360$
78	76	SRA International	USA	El	760	750	1541	50	58	6 980
79	88	Curtiss-Wright Corp.	USA	Comp(Ac Sh)	760	660	1810	42	95	7 600
80	93	Chemring Group	UK	SA/A	750	620	785	96	109	3 350
81	74	LIG Nex1	S. Korea	El	750	770	757	66	32	2 490
82	79	MTU Aero Engines	Germany	Eng	740	730	3 626	20	196	7 670
83	91	Alion Science and Technology	USA	Ser	740	640	802	92	-17	3 380
84	75	RUAG	Switzerl.	A Ac Eng SA/A	730	760	1558	47	-98	7 530
85	82	Teledyne Technologies	USA	El	730	680	1 765	41	113	8 100
86	95	Cubic Corp.	USA	Ser	710	610	$1 \ 017$	70	56	7 300
87	83	CAE	Canada	El	710	680	1335	53	126	7 000

260 MILITARY SPENDING AND ARMAMENTS, 2010

88	I	Fluor <sup>n</sup>	USA	Ser	710	430	21 990	ŝ	684	36150	
89	89	$MITRE^{o}$	USA	Ser	700	650	1263	56	:	7 180	
06	I	$\mathrm{UEC}^{f}$	Russia	Eng	680	:	2 279	30	-250	73 730	
91	92	Avio (Cinven, UK)	Italy	Eng	670	630	2364	28	54	5 230	
92	86	Patria	Finland	Ac $MV SA/A$	660	670	749	88	24	3410	
93	84	${ m Fiat}^p$	Italy	MV	650	680	69 586	1	-1 178	$190\ 010$	
s	S	Iveco (Fiat)	Italy	MV	650	680	9 976	7	-125	$24\ 920$	
94	I	Aselsan	Turkey	El	640	490	670	96	119	3 730	
95	97	Vought Aircraft Industries	USA	Ac	640	610	1,900	34	:	5,900	
		(Carlyle Group)									
96	81	ARINC (Carlyle Group) <sup>q</sup>	USA	Ser	640	700	$1\ 000$	64	:	3 200	
97	98	Esterline Technologies	USA	Comp(A Ac SA/A Sh)	640	590	1425	45	120	8 900	
98	100	Chugach Alaska Corp. <sup>r</sup>	USA	Ser	630	570	$1\ 000$	63	:	6 600	
s	S	Thales Australia (Thales, France)	Australia	A El MV Mi SA/A Sh	630	630	826	76	:	3410	
s	S	MBDA Italia (MBDA, trans-Eur.)	Italy	Mi	610	540	612	100	14	1250	
66	66	Aerospace Corp.	USA	Ser	610	590	840	70	:	$4\ 000$	
00	I	AAR Corp	USA	Comp(Ac) Ser	610	510	1424	43	79	5 930	
	E	- - - -	;			:	÷		1	- -	1

A = artillery; Ac = aircraft; El = electronics; Eng = engines; Mi = missiles; MV = military vehicles; SA/A = small arms/ammunition; Ser = services; Sh = ships; Sp = space; Oth = other; Comp() = components, services or anything else less than final systems in the sectors within the parentheses–used only for companies that do not produce final systems. <sup>a</sup> Although several Chinese arms-producing enterprises are large enough to rank among the SIPRI Top 100, it has not been possible to include them because of lack of comparable and sufficiently accurate data. In addition, there are companies in other countries, such as Kazakhstan and Ukraine, that could also be large enough to appear in the SIPRI Top 100 list if data were available, but this is less certain.

 $^{b}$  Companies are ranked according to the value of their arms sales in 2009. An S denotes a subsidiary company. A dash (–) indicates that the company did not rank among the SIPRI Top 100 for 2008. Company names and structures are listed as they were on 31 Dec. 2009. Information about subsequent changes is provided in these notes. The 2008 ranks may differ from those published in SIPRI Yearbook 2010 owing to continual revision of data, most often because of changes reported by the company itself and sometimes because of improved estimations. Major revisions are explained in these notes.

<sup>c</sup> For subsidiaries and operational companies owned by a holding or investment company, the name of the parent company is given in parentheses along with its country, where it differs.

 $^{d}$  The arms sales figures for KBR are an estimate based on LOGCAP III payments and payments by the British Ministry of Defence.

<sup>e</sup> Limited financial data is available for AM General. The SIPRI estimate of arms sales is based on a 2-year average of US Department of Defense (DOD)
prime contract awards. <sup>f</sup> This is the 8th year in which Russian companies have been covered by the SIPRI Top 100. There may be other Russian companies that should be in the list but for which insufficient data is available. Figures for Russian companies are from the Centre for Analysis of Strategies and Technologies (CAST),
Moscow.
This is the first year in which United Aircraft Corporation (UAC) and United Engine Corporation (UEC)—the two new main Russian state-owned con-
glomerates-reported parent company figures and subsidiary figures. In previous years, these figures were reported separately for each subsidiary or not reported at all. This year figures for Irkut, MiG and Sukhoi are reported as subsidiaries of UAC. UEC also reported overall arms sales figures. Although
reported as a parent company here, Vertolety Rossii is a subsidiary of OPK Oboronprom. For more detail on Russian arms-producing industry consolidation,
see Jackson, S., 'Arms production', SIPRI Yearbook 2010, pp. 261–62; and Perlo-Freeman, S. et al., 'The SIPRI Top 100 arms-producing companies, 2007,
SIPRI Yearbook 2009, pp. 286–87.
$^g$ Arms sales figures for Japanese companies represent new military contracts rather than arms sales.
$^{h}$ The arms sales figure for DynCorp is revenues from the US DOD. This is probably an underestimate as some security contracts with the US state
Department should probably be classified as military business and are thus 'arms sales' according to the SIPRI definition. Veritas Capital sold its shares in
DynCorp to Cerberus Capital Management in 2010.
<sup>1</sup> All figures for Indian Ordnance Factories are estimates.
<sup>j</sup> The arms sales figures for Krauss-Maffei Wegmann are based on a small estimate of the company's non-military sales.
<sup>k</sup> The arms sales figures for Shaw Group are based on a 2-year average of US DOD prime contract awards.
<sup>1</sup> The arms sales figures for Jacobs Engineering Group are based on a 3-year average of US DOD prime contract awards.
<sup>m</sup> Selex Galileo was formerly known as Galileo Avionica.
" The arms sales figures for Fluor are based on US DOD LOGCAP IV contracts.
° The arms sales figures for MITRE are based on a 5-year average of US DOD prime contract awards.
$^{p}$ The arms sales of Fiat are those of its Iveco trucks and commercial vehicles division, which sells some military vehicles.
$^q$ The arms sales figures for ARINC are based on a 3-year average of US DOD prime contract awards.
<sup>7</sup> The arms sales figures for Chugach Alaska Corporation are based on a 2-year average of US DOD prime contract awards.