

Aerospace & Defence 2010 year in review and 2011 forecast

We look at how aerospace and defence companies perform today—and what challenges and opportunities they will face tomorrow.



Contents

Flying high on revenue and profit	1
.....	
Mergers and acquisitions	5
.....	
Commercial aerospace	7
.....	
Defence contractors	11
.....	
In summary	16
.....	

Flying high on revenue and profit

Aerospace and defence top 100 results

<i>US\$ millions</i>	2010	2009	Change
Revenue	\$645,805	\$635,017	2%
Operating profit	\$58,422	\$49,299	19%
Operating margin	9.0%	7.8%	120 bps

In 2010, the top 100 A&D companies set records with US\$646 billion in reported revenue and US\$58 billion in operating profit.

Aerospace and defence industry rebounds in 2010

The recent global recession took a heavy toll on many industries, evident in waves of layoffs, lost revenue, bankruptcies, and a general sense of uncertainty about the future. In comparison, the aerospace and defence (A&D) industry as a whole continues to buck the trend—finishing 2010 with record results.

The picture isn't entirely positive, however. Many defence programmes have been terminated, and defence budgets are scheduled for cuts in future years. Companies face more pressure than ever to improve productivity; increase transparency; and respond to increasingly complex government regulations, tighter schedules, and generally higher expectations.

Persistent security threats and geopolitical instability, as witnessed recently in the Middle East, underscore the need for global security. The Japanese earthquake and tsunami and ensuing nuclear crisis also demonstrate that some security threats are not manmade, but natural disasters. In addition, the surprisingly strong recovery of commercial aviation underscores the essential role that aviation plays in the global economy.

The A&D industry used to be hyper-cyclical, overreacting to economic cycles. However, during the latest down cycle, the A&D industry has performed more consistently through disciplined management during the up cycle and better preparation for the economic down cycle and inevitable decline in defence spending. The steady growth and increased earnings among the majority of the top 100 A&D companies reflect the resiliency of end markets and improved management over the past decade.

High performance and record numbers

In 2010, the top 100 A&D companies set records with US\$646 billion in reported revenue and US\$58 billion in operating profit. Revenues inched a modest 2% higher compared with 2009, while operating profit was up 19% over 2009. Perhaps the most notable factor affecting results was better programme performance. In 2010, there was a steep reduction in the large programme charges and impairments that had mitigated the industry's performance in recent years.

However, we see these changes more as a reflection of the development cycle of major programmes as opposed to a sustained trend. In 2009, for example, more than US\$8 billion in programme charges and impairments was reported by Boeing (related to the 787 and 747); the European Aeronautic Defence and Space Company, or EADS (related to A380 and A400M); and BAE Systems.

Also affecting 2010 performance was a strong rebound in commercial aviation, which drove much better results in the aftermarket.

Although overall industry results were at record levels, not all news was cheery. Pressure has continued to mount on global defence budgets and on contractors to improve productivity. As a result, many defence contractors trimmed payrolls, consolidated operations, and deferred some non-product investments, such as upgrades to their information technology systems. These actions aren't usually associated with record profits. Defence spending is clearly softening and we are starting to see modest erosion in defence backlogs, so defence contractors are preparing for leaner times ahead.



The biggest move in the top 100 list came from Oshkosh Defense.

Boeing leads the way

Boeing was, again, the industry's largest company, despite a decline in revenue from US\$68.3 billion to US\$64.3 billion, which resulted from lower commercial aircraft revenue. EADS increased revenue from €42.8 billion to €45.8 billion. The biggest move to the top 100 list came from Oshkosh Defense, which increased revenue by an astounding 176%, primarily on the strength of M-ATV deliveries.

Boeing was also the industry's most profitable company, with US\$4.971 billion in operating profit, exceeding Lockheed Martin, which had been the most profitable A&D company

in recent years. Industry operating margin improved 120 basis points to 9.0%. The industry's best operating margin belongs to TransDigm, at 43.8%, far exceeding the runners-up, Meggitt and FLIR Systems, which tied at 26.1%.

Programme management continues as the major risk in 2011

For 2011, we expect modestly improved results, with the principal risk being programme performance. Commercial aerospace revenues and profits should improve on slightly higher original equipment manufacturing (OEM) production and continuance of the rebound in the commercial aftermarket. While higher

oil prices will affect airline financial performance, we do not see this translating into a significant impact on demand in the short term. We believe the major programme risk in 2011 is the Airbus A350 wide-body airliner, which is now at a critical point in development.

Defence revenues should be flat to modestly lower. However, recent cost-cutting actions and improved pension costs should mitigate the impact to the bottom line. There are also some risks that are difficult to forecast, such as the effect of destabilisation of the geopolitical environment in the Middle East on defence spending or commercial aviation.

Mergers and acquisitions

Spinoffs and divestitures generate new activity

The defence industry enjoyed robust merger and acquisition (M&A) activity in 2010, with about US\$20 billion worth of deals, compared to about US\$10 billion in 2009. We expect to see a further increase in M&A activity in 2011.

A recent trend has been spinoffs and divestitures. We have seen it in the broader economy, but particularly in A&D. Recent announcements and deals include Northrop Grumman's spinoff of TASC and its plan to spin off its ships business, the spinoff of ITT Defense, and Lockheed Martin's sale of EIG and PAE. This trend will likely continue as companies focus on rebalancing their portfolios during a period of slower organic growth.

However, we also believe further consolidation is likely. The US Defense Department has indicated that it will oppose any deals that create a sole-source supplier. Therefore, it is unlikely we will see any consolidation among the top 10 players, but there remains ample opportunity for other companies in the A&D arena. We see Command, Control, Communications, Computers, Intelligence, Surveillance and Reconnaissance (C4ISR) as a pocket of growth in an otherwise flat market. Also, given the reduced tempo of operations in Iraq and Afghanistan, it may be time for consolidation of land systems providers.

Companies must seek better ways to expand while streamlining operations. This can happen through strategic mergers and acquisitions, such as when large

companies acquire highly specialised technology through business combinations with smaller firms. In this type of scenario, a larger firm can add new technology to its portfolio of products, and new talent to its employee roster, without diverting resources in research and development.

Looking ahead, we point to four dominant themes that will underpin M&A activity in the coming years:

- Increased consolidation as companies respond to slower organic growth and cost pressures
- Further re-evaluation of supply chains by big manufacturers, in commercial and military segments, as they seek to gain better control of their large programme pipelines

- Continued growth in the security, surveillance, and homeland security sector
- Greater investment in and competition from fast-growing markets, most notably China in aviation

We believe these trends will provide the context for an acceleration in deal volume and value.



Companies must seek better ways to expand while streamlining operations.

Commercial aerospace



Since Boeing and Airbus have raised production rates, aircraft deliveries should exceed 1,000 for the first time in 2011.

Backlog

US\$ billions	12/31/2010	12/31/2009	12/31/2008
Boeing	\$256	\$250	\$279
Airbus*	\$480	\$459	\$471

* At list price

Major manufacturers taking off with new orders

Airbus set a record for commercial aircraft deliveries in 2010 with 510 planes, an increase of 12 from the prior year, while Boeing delivered 462 aircraft, a decrease of 19 from the prior year. Total large aircraft deliveries were 972 in 2010 versus a record of 979 in 2009.

Aircraft backlogs are growing again. Airbus reported 574 net orders, growing backlog by 64 aircraft, for a total of 3,552 aircraft, representing approximately seven years of backlog at current production levels. Airbus' value of backlog is US\$480 billion at list price (Airbus does not disclose the actual value of backlog).¹

Boeing reported 530 net new orders for the year, an increase of 68 aircraft to its backlog, for a total of 3,443 aircraft, slightly more than seven years of backlog at current production levels. Boeing's backlog is US\$256 billion, at actual value.

The robust OEM market is being driven by strong demand for commercial aviation, which has rebounded from the recession much stronger and faster than nearly anyone predicted. For 2010, the International Air Transportation Association (IATA) reported that passenger traffic was up 8.2% for the year and 4% higher than pre-recession levels.² Air freight was up 20.6% for the year and 1% above pre-recession levels. Passenger load factors ended the year at 78.4% and freight load factors were at 53.8%, both near historical highs. Airlines are increasing capacity roughly consistently with the growth in demand. Furthermore, airlines are profitable and expected to earn US\$15 billion globally in 2010.

The commercial aftermarket rose significantly in 2010; however, it continues to lag the growth in traffic. The aftermarket generally lags an aviation recovery by 12 to 18 months. We started to see a stronger rebound in the aftermarket in fourth quarter 2010.

The trends so far in 2011

For 2011, growth in commercial aviation will slow in comparison to a strong year in 2010. Some economic signals are mixed. Oil prices have recently increased as a result of unrest in the Middle East and are expected to remain high, with the global economic recovery eroding airline profits. However, overall economic indicators are positive. IATA forecasts reduced profitability for airlines in 2011, but we do not expect that these factors will have a significant effect on demand in the short term.

Since Boeing and Airbus have raised production rates, aircraft deliveries should exceed 1,000 for the first time in 2011. We expect backlogs to continue to grow robustly in 2011. Already in 2011, we have seen some of the largest aviation orders ever. On February 1, 2011, Indigo Airlines signed a deal with Airbus for the largest order in aviation history, buying 180 A320s. And Delta Airlines has issued a request for proposals that could trump the Indigo order, asking for bids for up to 200 firm aircraft plus 200 options. The CEO of Air Asia also indicated that the airline plans an order "not dissimilar" to a previous order for 175 planes.³ Furthermore, ILFC has placed an order for 133 aircraft split between Boeing and Airbus. Overall, we expect aircraft orders and backlog to increase significantly from 2010 to record levels.

1 Airbus Press Release 17 January 2011

2 IATA. Air Transport Market Analysis, Dec. 2010

3 Aviation Week. Air Asia close to huge A320 NEO order, Feb. 2011

Business Jet Backlog

US\$ billions	12/31/2010	12/31/2009	12/31/2008
Gulfstream	\$17.8	\$18.9	\$22.5
Cessna	\$2.9	\$4.9	\$14.5
Hawker Beechcraft	\$1.4	\$3.4	\$7.6
Total	\$22.1	\$27.2	\$44.6

We also expect the growth in the aftermarket to continue in 2011 for at least three quarters, even as aviation demand flattens, while airlines catch up on deferred maintenance and refurbish planes grounded during the recession. The rebound in the aftermarket should be proportionate to the decline in the aftermarket during late 2008 and throughout 2009.

The long-term forecast: crowded skies

The long-term forecast for commercial OEM aircraft reflects approximately 30,000 new planes over the next 20 years. While some

argue that these projections are optimistic, commercial aviation is a growth industry. These forecasts represent approximately 1,500 aircraft deliveries per year, which is about 50% above current production levels. So, even if these projections are slightly optimistic, growth will clearly be significant in the long term.

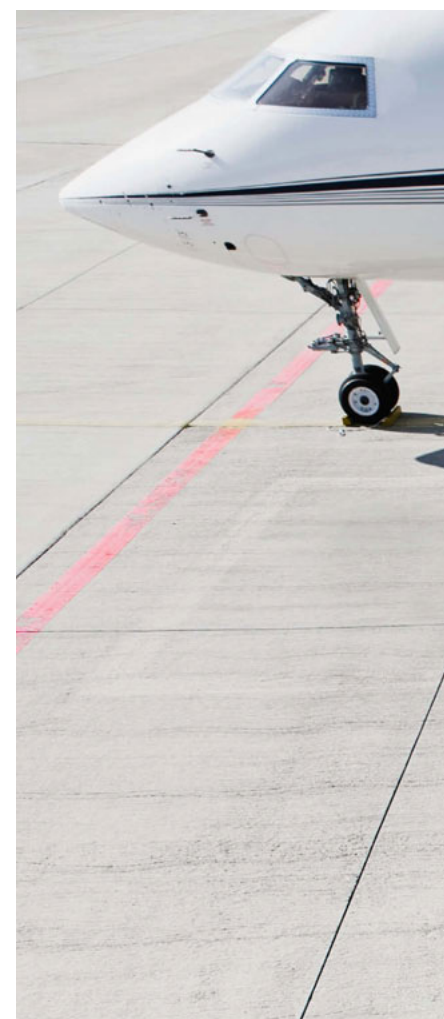
At the same time, competition is increasing. Commercial Aircraft Corporation of China (COMAC) has launched its C919 aircraft, for deliveries beginning in 2016, and it projects to sell more than 2,000 planes, or about 7% of market share. In addition, Irkut of Russia has also launched a narrow-body aircraft and Bombardier has launched its CSeries aircraft, competing for a segment of the narrow-body market. Don't be surprised if Embraer launches a 100+ seat aircraft to compete in the segment.

Growth of business jets

The business jet rebound continues to lag the turnaround in commercial aviation. While business jet cycles were up about 13% in 2010, this segment needs another year of nearly 10% growth to get back to pre-recession levels.

Business jet backlogs have been cut approximately in half since the start of the recession.

We believe the growth in business jet cycles will continue in 2011, but at a decelerated pace, and will end the year near pre-recession levels. We also see strong growth prospects for the business jet market in the long term, particularly in the Middle East and Asia. However, these longer routes favour the large segment of the business jet market.





Defence contractors

Backlog

US\$ billions	12/31/2010	12/31/2009	12/31/2008
EADS Defence	\$83	\$82	\$77
Lockheed Martin	\$78	\$78	\$81
Finmeccanica	\$70	\$64	\$61
Boeing Defense, Space & Security	\$65	\$65	\$73
Northrop Grumman	\$64	\$69	\$78
BAE Systems	\$63	\$75	\$75
General Dynamics (exc Gulfstream)	\$42	\$46	\$52
Raytheon	\$35	\$37	\$39
L-3 Communications	\$11	\$11	\$12
Total	\$511	\$527	\$548

Companies must produce under budgetary constraints

The US military continues to fight in the longest war in its history, straining Pentagon resources at a time when national security remains a priority. The Department of Defense (DoD) is expected to trim more than US\$100 billion from its budget over the next decade and has challenged contractors to improve productivity.

Although the tone is cautious as budgetary pressures mount, the defence sector reported another strong year in 2010, capping a strong decade. Industry backlogs have been resilient despite many programme terminations, showing only modest erosion.

The US Air Force recently awarded Boeing a US\$35 billion contract for a new fleet of about 180 airborne refueling tankers, a deal that will bolster the company's

backlog over the next decade. Boeing won out over its European competitor Airbus. The deal is expected to create more than 50,000 new jobs.

In 2011, the federal budget has been operating under Continuing Resolution for half of the fiscal year. As a result, the DoD is restricted to continuation of funding programmes at current levels, which means that it is buying more than it needs of some equipment and that it cannot award new programmes. Due in part to the Continuing Resolution, expect defence revenues to be fairly consistent with 2010. However, we expect profits to be modestly higher as companies reap the benefits of productivity improvement initiatives and deferred spending, as well as lower pension costs.

The long-term forecast

It's nearly impossible to predict the overall health of the defence industry beyond a few years down the road. The uncertainty of the US military's role in world affairs, a tightening Pentagon budget, the continuing threat of terrorism, instability in the Middle East, and other factors will influence the long-term picture. Despite all these unknowns, we expect in 2011 and subsequent years that defence contractors will face the reality of flat to declining spending. Here are three challenges they must face to compete and thrive in the future:

1. Preserving innovation

Preserving investment in innovation during a period of tight budgets will be critical to the health of the defence industrial base and global security. Historically, innovation in defence research and development has led to myriad commercial applications, such as the Internet, GPS, and commercial satellite communications.

Once the F35 Joint Strike Fighter completes development in the next few years, there will be no military fighter aircraft in development for the first time since the innovation of flight. The threat environment also is unpredictable. For example, while the capabilities of China's J20 fifth-generation fighter are still unknown, the threat is years ahead of prediction. The United States will need to preserve its specialised aircraft engineering talent to develop the sixth-generation fighter. In addition, the United States

needs to rapidly crystallise its space exploration strategy, where many new technologies are created.

Policy makers need to recognise the value of innovation, research, and development, and invest in retention of specialised expertise so that critical knowledge and skills are not lost as one generation of workers retires and the next takes its place.

2. Productivity: getting leaner

Defence Secretary Robert M. Gates wants to save more than US\$100 billion through the current decade. “The Defense Department must take a hard look at every aspect of how it is organised, staffed, and operated — indeed, every aspect of how it does business,” Gates said at a recent press conference. His premise includes three broad themes:

- We need to take care of our military people and support troops in the field.

- We need to rebalance our forces to more effectively fight current wars.
- We need to change what and how the US Defense Department buys from contractors.

To be more productive, the Pentagon and its numerous contractors must work more closely together. After all, defence contracts make up US\$400 billion of fiscal 2010’s overall budget. How can we get there? To improve efficiency and cost savings will require better financial management, cost estimates, and contingency contracting; reforming what and how the Defence Department buys; elimi-

nating unrealistic development requirements and outdated models of doing business; and encouraging healthy competition among contractors without jeopardising national security.

This leads to another important question. How does defence industry productivity compare to the broader industrial base? For the past decade, the defence industry has compared favourably to the Dow Jones Industrial Average (DJIA). Since 2000, the top six defence companies have improved productivity by an average of nearly 70%, or 6% compounded annual growth rate, slightly better than the DJIA through 2008.



The impressive statistics for the defence industry come from investments in digitisation of engineering and production data, automated manufacturing, lean production principles, and process improvement methodologies. In 2009, the defence industry productivity continued to improve while the DJIA productivity fell flat for the decade, as a result of a sharp decline in revenue resulting from the severe recession.

However, a look at the broader picture reveals that defence industry productivity, as measured by revenue per employee, has been consistently less than half of the DJIA, except in 2009, when it was about three-quarters of the DJIA. Perhaps the comparison is not entirely fair. The defence industry profitability consistently averages slightly below 10% operating margin, while the DJIA averages around 17% operating margin. This discrepancy is largely a result of the defence industry operating on a cost-based model that limits profits. Another factor has been the Pentagon's reluctance to spend short-term budget dollars to invest in long-term cost reduction,

a situation that Secretary Gates' plan has pledged to improve. But even adjusting for these differences, the defence industry significantly lags DJIA productivity.

Many contractors have already taken actions to reduce overhead through workforce reductions, early retirements, and facilities consolidation. These actions are important steps to improve productivity and will likely continue. But what are the next big productivity drivers? We believe the biggest opportunities are in the following areas:

- Programme management/shortened development cycle
- Supply chain management
- Information technology
- Knowledge management

Improving the speed and effectiveness of programme development usually produces the biggest gains in affordability. Schedule delays are the biggest factor in budget overruns. There's no doubt that budget overruns are a complex issue

caused by many factors. The defence acquisition process has inherent flaws that contribute to overruns, including stability of requirements and the funding process. However, contractors must focus on what is within their control. While contractors take pride in their programme management abilities, the industry must seek continuous improvement, including unbiased, independent assessments and benchmarking.

The defence supply chain has become extremely complex. It is common that 50% to 80% or more of the total value of production lies in a technically complex, multi-tier supply chain. Defence contractors can no longer accept that long lead times and marginal supplier performance are the industry norm. The industry must challenge itself to get much closer to "just-in-time" delivery. The industry needs to adopt leading-edge risk management practices to regain visibility into the supply chain that has been lost through outsourcing.

Information technology represents one of the biggest areas for discretionary spending at most companies, including defence firms. Many A&D companies have invested millions in system implementations, without yet realising the full capabilities and productivity enhancements that these systems enable. Many IT organisations are still spending the majority of their budget and time in legacy system maintenance and enhancements. Companies need to unlock the full capabilities of their IT platforms, become leaner and migrate the IT organisation away from costly maintenance toward strategic initiatives to drive competitive advantage.

Finally, improved knowledge management will become more critical. The industry was already facing a talent drain because of demographics. Now, that talent drain has been accelerated by early retirements and work force reductions. Companies need to identify the key people and knowledge in their organisations and capture that information using searchable technology tools. But they also need to create a knowledge management culture that promotes and rewards the effective capture and use of knowledge.

3. The regulatory environment

The current regulatory environment affecting defence contractors may reduce rather than enhance the value to our war fighters and taxpayers.

Several reforms may help improve the environment for A&D companies.

a. Acquisition reform

Many people agree that the current defence acquisition process is broken. However, attempts to improve it have failed to meet the desired outcomes. One reason is that reform has sought to place ever more increasing regulations on the contractors. The regulations have the unintended consequence of driving up cost and reducing innovation. Furthermore, the reforms have largely ignored the customer behavior and funding process, which are at least equally responsible for programme performance as are contractors. Acquisition reform could address how Congress funds long-term programmes on a short-term basis and the manner in which the customer initially defines requirements and the impact of subsequent modifications. Our recommendations include:

- Address the definition and stability of requirements
- Establish realistic budgets and funding based on the inherent risks of developing advanced technologies
- Promote flexibility and innovation in the bid and proposal process
- Use contract structures appropriate to risk
- Encourage international cooperation and cost sharing

b. The Defence Contract Audit Agency

The purpose of the Defence Contract Audit Agency (DCAA) is to protect the government and taxpayers from fraud and abuse. Reforms that would help the DCAA to fulfill this mission include:

- Audit approach—Benchmark the audit approach against commercial practices, such as those regulations established under the American Institute of Certified Public Accountants and Public Company Accounting Oversight Board.
- Materiality—Establish materiality standards. It may surprise some people to know that there is no materiality standard for govern-

ment contracting exceptions. It is widely accepted in commercial practice that it is impractical and cost prohibitive to build a control system to catch even minor errors.

- Third-party reliance—The DCAA's resources are limited. While DCAA standards allow for reliance on third parties, it is seldom done. The DCAA should establish standards for third-party reliance that promote such use where the third party is independent and competent to improve the speed and efficiency of the regulatory process.

c. Export control reform

Secretary Gates refers to “building higher walls around fewer things.” Export control reform makes sense. Many technologies that are broadly used in commercial applications are still subject to export control restrictions. A good example is satellites. Lawmakers should consider expediting export control reform to promote US exports and preserve key skills and competitiveness in the industrial base.

In summary

A&D must flex its innovative muscle

The performance of the top 100 A&D companies can be viewed as a barometer of the resiliency of the industry as a whole, and the success of their long-term strategic approach underscores how well these organisations have endured the recession.

As we enter the second decade of the 21st century, commercial aerospace looks to be full of optimism and growth. Aviation will continue to grow faster than the overall economy because this critical part of the global economic infrastructure is bolstered by the growing middle class in Asia, the Middle East, Eastern Europe, and Latin America. However, the shift of economic power from West to East creates a changing competitive landscape.

The outlook for defence, on the other hand, is filled with uncertainty and challenge. There are palpable tensions between the dynamic need for global security and a scarcity of economic resources. Security, however, is not a luxury but a necessity. So the defence industry, with a proud tradition of innovation, must reinvent itself, becoming leaner and more productive.

Policy makers must support the industry by preserving funding to maintain critical skills and competencies and by reducing regulation and promoting more free trade.

The confluence of challenges facing these companies in today's world will press them to be even more resilient in a future full of uncertainty.



#	Company	Revenue US\$ millions			Operating Profit US\$ millions		
		2010	2009	Change	2010	2009	Change
1	Boeing	64,306	68,281	-6%	4,971	2,096	137%
2	EADS	60,599	59,558	2%	1,572	(568)	377%
3	Lockheed Martin	45,803	43,995	4%	4,097	4,415	-7%
4	Northrop Grumman	34,757	33,755	3%	3,070	2,483	24%
5	BAE Systems	34,609	34,306	1%	2,528	1,507	68%
6	General Dynamics	32,466	31,981	2%	3,945	3,675	7%
7	United Technologies	25,227	24,239	4%	3,838	3,585	7%
8	Raytheon	25,183	24,881	1%	1,804	1,936	-7%
9	Finmeccanica	24,762	25,280	-2%	1,631	1,936	-16%
10	GE Aviation	17,619	18,728	-6%	3,304	3,923	-16%
11	Thales	17,364	17,915	-3%	(161)	210	-177%
12	Rolls Royce	17,133	16,246	5%	1747	1,831	-5%
13	L-3 Communications	15,680	15,615	0%	1,750	1,656	6%
14	Safran	14,252	14,531	-2%	1,145	965	19%
15	SAIC	10,846	10,070	8%	867	776	12%
16	Honeywell Aerospace	10,683	10,763	-1%	1835	1,893	-3%
17	Bombardier Aerospace	9,357	9,965	-6%	473	896	-47%
18	Textron	7,783	8,061	-3%	628	742	-15%
19	Oshkosh Defense	7,162	2,595	176%	1,321	403	228%
20	Goodrich	6,967	6,686	4%	998	929	7%
21	CSC North American Public Sector	6,225	5,978	4%	538	482	12%
22	ITT Defense	5,897	6,067	-3%	752	761	-1%
23	Mitsubishi Aerospace	5,696	5,473	4%	(73)	(110)	34%
24	Dassault Aviation	5,546	4,758	17%	783	592	32%
25	Precision Castparts Corp.	5,487	6,801	-19%	1,409	1575	-11%
26	Embraer	5,364	5,498	-2%	392	379	3%
27	Harris Corp	5,206	5,005	4%	562	312	80%
28	Alliant Techsystems	4,808	4,583	5%	512	384	33%
29	Rockwell Collins	4,665	4,470	4%	802	867	-7%
30	Singapore Technologies	4,388	3,816	15%	430	334	29%
31	Spirit AeroSystems	4,172	4,079	2%	357	303	18%
32	MTU Aero Engines	3,613	3,745	-4%	330	384	-14%
33	DynCorp International	3,585	3,101	16%	212	188	13%
34	IHI Aero Engines and Space Operations	3,199	3,164	1%	80	118	-32%
35	CACI	3,149	2,730	15%	195	184	6%
36	Cobham	2,941	2,933	0%	473	460	3%
37	Serco Defence and Americas	2,882	2,798	3%	218	218	0%
38	Zodiac	2,848	3,068	-7%	318	347	-8%
39	Hawker Beechcraft	2,804	3,199	-12%	(174)	(712)	76%
40	Elbit Systems	2,670	2,832	-6%	207	263	-21%
41	Rheinmetall Defence	2,658	2,639	1%	310	299	4%
42	ManTech International	2,604	2,020	29%	215	179	20%
43	Kongsberg Gruppen	2,562	2,194	17%	366	218	68%
44	QinetiQ	2,512	2,523	0%	186	236	-21%
45	Hindustan Aeronautics Limited (HAL)	2,494	2,123	17%	585	478	22%
46	Kawasaki Aerospace	2,450	2,141	14%	19	(44)	143%
47	GKN Aerospace	2,243	2,318	-3%	250	264	-5%
48	MOOG	2,114	1,849	14%	149	111	34%
49	Babcock International Group	2,074	1,823	14%	213	168	27%
50	Saab	2,045	2,011	2%	86	194	-56%

#	Company	Revenue US\$ millions			Operating Profit US\$ millions		
		2010	2009	Change	2010	2009	Change
51	BE Aerospace	1,984	1,938	2%	316	296	7%
52	Curtiss-Wright	1,893	1,810	5%	180	169	7%
53	BBA Aviation	1,828	1,686	8%	171	157	9%
54	Meggitt	1,796	1,795	0%	469	446	5%
55	Teledyne Technologies	1,778	1,765	1%	180	166	9%
56	Parker Hannifin Aerospace	1,744	1,883	-7%	208	262	-21%
57	SRA International	1,667	1,541	8%	61	100	-39%
58	Xi'an Aircraft International Corp	1,602	1,250	28%	56	54	4%
59	ThyssenKrupp Marine Systems	1,600	2,216	-28%	50	(771)	106%
60	Eaton	1,536	1,602	-4%	220	245	-10%
61	Esterline Technologies	1,527	1,407	9%	228	185	23%
62	CAE	1,480	1,455	2%	223	268	-17%
63	Woodward Governor	1,457	1,430	2%	155	122	27%
64	Allegheny Technologies High Performance Metals	1,410	1,357	4%	258	235	10%
65	FLIR Systems	1,385	1,147	21%	361	347	4%
66	AAR	1,352	1,424	-5%	90	103	-13%
67	Kaman	1,319	1,146	15%	63	54	17%
68	Orbital Sciences	1,295	1,125	15%	73	52	40%
69	Triumph Group	1,295	1,240	4%	155	152	2%
70	Cubic Corporation	1,194	1,017	17%	106	85	25%
71	Hexcel	1,174	1,108	6%	130	104	25%
72	Loral Space & Communications	1,159	993	17%	81	20	305%
73	Bharat Electronics	1,136	996	14%	252	248	2%
74	Barnes Group	1,133	1,034	10%	87	61	43%
75	Ultra Electronics	1,097	1,016	8%	170	16	963%
76	Volvo Aero	1,069	1,020	5%	40	7	471%
77	Fuji Aerospace	1,061	864	23%	55	17	224%
78	Chemring Group	923	786	17%	167	168	-1%
79	Smiths Detection	887	781	14%	139	98	42%
80	Stanley (CGI)	885	780	13%	80	67	19%
81	Senior Aerospace	876	842	4%	96	95	1%
82	GenCorp	858	795	8%	38	78	-51%
83	Titanium Metals	857	774	11%	121	55	120%
84	Alion Science and Technology	834	802	4%	39	38	3%
85	TransDigm Group	828	762	9%	363	335	8%
86	Aselsan	750	692	8%	153	103	49%
87	Ball Aerospace	714	689	4%	70	61	15%
88	Force Protection	656	977	-33%	23	43	-47%
89	Aeroflex	655	599	9%	68	(19)	458%
90	Umeco	632	635	0%	37	44	-16%
91	Heico Corporation	617	538	15%	109	88	24%
92	Latecoere	615	625	-2%	60	(143)	142%
93	Crane Aerospace & Electronics	577	590	-2%	109	96	14%
94	OHB Technology	564	399	41%	30	29	3%
95	Vector Aerospace	529	496	7%	48	41	17%
96	Jamco Corp	519	429	21%	11	10	10%
97	Ducommun	408	431	-5%	26	16	63%
98	Ladish Co	403	350	15%	47	9	422%
99	Ceradyne	403	401	0%	29	8	263%
100	ViaSat Government Systems	385	389	-1%	56	57	-2%
Total		645,805	635,017	2%	58,422	49,299	19%

Methodology

Our data is based on the fiscal 2010 results for the largest 100 Aerospace & Defence companies, by revenue, with publicly available financial reports. Our cut-off for publication was March 25, 2011. Accordingly, a few companies were omitted because they had not reported results by the cut-off. A&D companies include those

that generate the majority of revenue from aerospace and defence activities, or for diversified companies, those reportable segments that derive a majority of revenue from aerospace and defence activities. The results are reported in US dollars. Foreign currencies were translated at average exchange rates for the years ended December 31, 2010 and 2009, respectively.

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