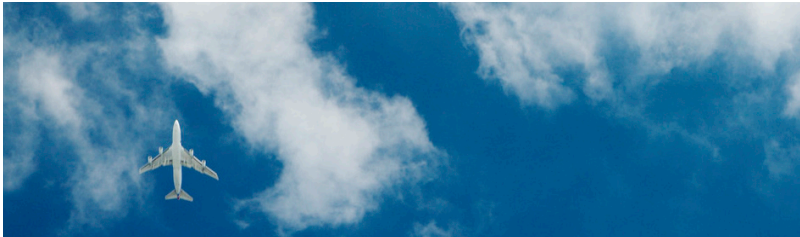


## Aerospace & Defense — 2010 U.S. Outlook



The New Year marks the beginning of a new decade, and the close of the first decade of the new millennia. The dawn of the new century started with great expectations, outstanding performance in financial markets around the world, and was followed by the bursting of the telecom bubble, the tragedy of 9/11, and the ensuing coalition military campaigns in Afghanistan and Iraq. The domestic Aerospace & Defense (A&D) industry went from peak to trough twice, ending the decade with generally outstanding financial performance amidst the worst global economic downturn in nearly 80 years.

But that performance was not shared by all, as the business jet industry's output experienced a devastating 50 percent cut in production and as the decade ended, commercial aircraft orders experienced the worst order cycle in almost 20 years. At press time, the defense appropriations budget has a significant number of large weapons program terminations which portends lean times ahead for the A&D industry.

We interviewed Tom Captain, principal, vice chairman and U.S. leader, and General Chuck Wald, director and senior advisor, both of the A&D sector practice for Deloitte LLP, on their views of the industry and where they see it going next year and beyond.

*How did the U.S. domestic A&D industry perform in 2009 and what do you see for 2010?*

The U.S. A&D industry had a record year in 2008, with the highest ever profits, operating margin, and overall financial performance, despite the fourth quarter 2008 financial market turmoil over a year ago. This performance was due to seven years of progressive growth in commercial aircraft backlog as well as the 60 percent increase in Department of Defense (DOD) spending on Iraq,

homeland security and related matters. It was also enabled by the efficiency initiatives started years ago like: a) digital product development, b) lean six sigma programs, and c) industry consolidation. These and other initiatives clearly helped propel the financial metrics, thus enabling the Dow Jones A&D index to reach its highest point by late 2007, significantly outpacing the S&P500 index.

**Chart 1 (Five-year Comparison — DJ A&D Index versus S&P500)**



Source: BigCharts.com

By comparison, 2009 was uneven and not nearly as good. All full-year results are not in yet, but judging from the year-on-year 2009 3Q comparisons, the total of 2009 appears to be a good year, but not a record year due to write-offs on large program cost overruns, industry revenues falling off due to program delays, reduction in orders for large military platforms, and falling maintenance repair overhaul revenues due to reduction in both passenger and freight travel. Business jet revenue was down significantly, although revenue for information technology (IT) and government contractor services were up, but overall industry revenues were flat. Earnings took a plunge from the 2008 historic highs, and the stock market reaction was commensurate with this performance falloff.

For 2010, we will likely see continued moderation in the financial performance of the domestic A&D industry, with 2010 representing the trough of the commercial airplane order cycle, the beginnings of improvement in business jet orders and production, with earnings pressure on defense programs.

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*On the subject of DOD spending, where do you see it going?*

DOD spending is likely to moderate from the current 4.2 percent of gross domestic product (GDP) level, both as a function of the U.S. economy improving as well as the flattening of the military budgets, exclusive of the ramp-up in troop strength in Afghanistan. According to the Congressional Budget Office (CBO), the President's 2010 budget request of \$534 billion would require roughly 6 percent more, for a total of \$567 billion annually, from 2011 to 2028 in constant 2010 dollars, just to carry out the current proposed plans. This amount excludes any overseas operations in Iraq and Afghanistan and military actions to combat terrorism.

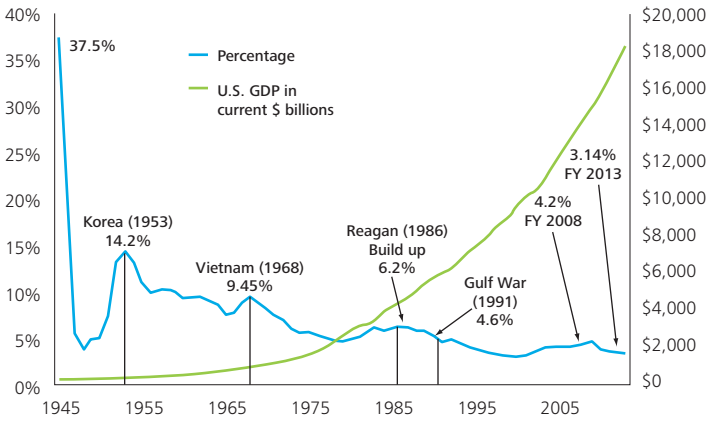
This shortfall is due to four cost drivers not being factored in:

- 1) increases in pay and benefits for the DOD's military and civilian personnel;
- 2) the projected rise in operations and maintenance costs for aging equipment, as well as newer, more complex equipment;

- 3) the DOD's plan to develop advanced weapons systems to replace many now nearing the end of their service lives; and
- 4) the growing investment in new capabilities, such as advanced intelligence, surveillance, and reconnaissance systems, to meet emerging security threats.

These important requirements will likely result in an increasingly smaller slice of the pie dedicated to the research, development, test, and evaluation (RDT&E) as well as procurement accounts. If there is no real growth in the defense budget, acquisition accounts could slide from 35 percent of the budget in 2010 to 24 percent by 2020 according to the Congressional Research Service. If this were to occur, likely outcomes could be underutilization of the industrial base, cost cuts and rationalization to preserve profitability, and most importantly reduced investment, resulting in lower capability to innovate and create technical breakthroughs that have been the hallmark of the industry.

**Chart 2 (U.S. DOD Budgets as a % of GDP – 1945 to 2013E)**



With defense contractors receiving a smaller slice of the pie, coupled with cost overruns, the A&D industry will be challenged to create the technical innovations that are being requested by its customers. According to DOD projections, the defense budget would likely decline as a percentage of U.S. GDP. Under DOD’s current plans, defense spending would decline to 3.8 percent of GDP by 2015 and to 3.1 percent of GDP by 2028, inclusive of unbudgeted costs, as defined by the CBO. Defense spend as a percentage of GDP is a reasonable proxy for gauging affordability and when viewed over time provides a good comparison.

DOD spend as a percent of GDP was 9.45 percent during the Vietnam Conflict, 6.2 percent during the Reagan Administration’s Star Wars buildup and 4.6 percent during the first Gulf War. According to several DOD and Intelligence officials, we face security threats of equal or greater significance, e.g., the potential for a nuclear armed Iran and North Korea; and cyber attacks from China, Russia, and nongovernmental organizations. Yet our defense spending when compared to prior periods of conflict is significantly lower.

*What about the December 2009 announcement by President Obama to deploy 30,000 additional troops to Afghanistan by mid 2010. How will that impact the industry? What are the growth markets for defense?*

First of all, this is a coalition campaign, with NATO's announcement of an additional 7,000 troops from at least 25 countries also participating. Additionally, it must be noted that due to the nature of the campaign in rugged terrain and the

changing manner in which conflicts are addressed in the theatre of irregular warfare, there are likely to be as many government contractors who will also be in the war. These nonactive duty personnel are from companies that specialize for example in logistics, transportation, civilian police training, camp building, translation services, border surveillance and other nonmilitary capabilities; all of which will likely see an uptick in revenue. Thus the A&D industry is poised to supply the 30,000 to 40,000 contractors to support this campaign for the foreseeable future, to match the numbers of expected active duty personnel from the United States and NATO.

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**A&D firms stand to benefit from orders for additional equipment and to help refurbish equipment that has worn out.**

The operations tempo for the war will likely require that additional mechanized equipment will be needed, for example mine resistant ambush protected vehicles, electric generators, transport aircraft, and helicopters. A&D firms stand to benefit from orders for additional equipment and to help refurbish equipment that has worn out. In addition, the surge in Afghanistan provides a superb opportunity for the industry, known for its historically significant innovations in technology, to step up and address the critical new requirements, such as the anti-improvised explosive device, alternative energy, and precision engagement technologies. Companies that can develop and rapidly test and deploy these life-saving technologies will likely be winners in 2010.

Although the traditional defense markets might be moderating, there are expanded opportunities for growth in security — in many areas, such as shipping and transportation, infrastructure, energy grid, cyberspace, and borders. Defense firms also have growth prospects in local and regional government police forces. With the increasing sophistication of the defense technologies produced, there will be expanded opportunities to provide the after-market support with services in maintenance, repair, and overhaul of this equipment.

### *What about the downturn in the commercial aircraft business?*

There is a dichotomy in this industry that is perplexing to understand, in that 2009 was a record year for airplane production, reaching almost a 1,000 aircraft produced. However, there were only a little over 400 net orders, thus creating the perception of a commercial aircraft “recession.”

As it turns out, this is true for orders, but not for production. The reason for the record high production levels is that in the last four years, over 8,000 aircraft have been ordered, creating a six-year backlog for both aircraft manufacturers.

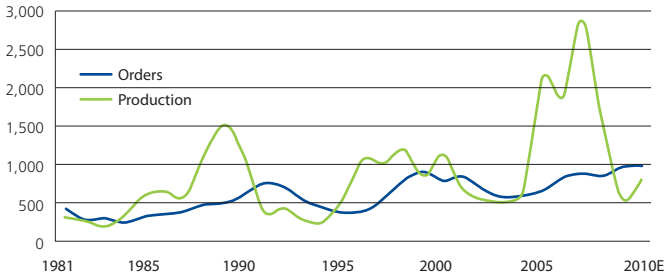
However, there is a sense of caution among suppliers about the production forecasts for 2010 due the timing of the economic recovery. If the recovery is in sight and airlines start ordering again, due to the ability to finance aircraft as well

as a return to growth in revenue passenger kilometers (RPKs), commercial aircraft producers might be convinced that a reduction in production levels could be avoided — a relief to the thousands of suppliers to this industry.

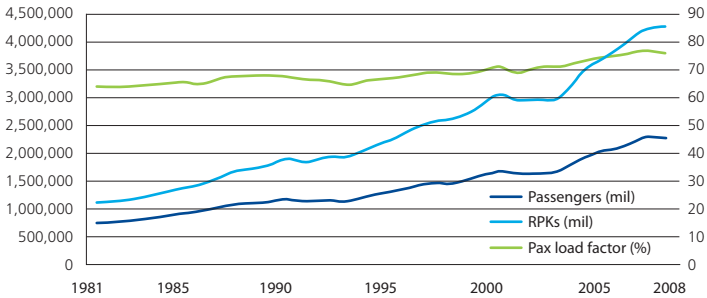
From a longer term perspective, RPK growth has shown a steady increase over the last 30 years, which provides some comfort that this industry has resiliency. Industry insiders forecast that almost 30,000 new aircraft will be produced over the next 20 years based on the long-term forecast for increase in leisure and business travel, not to mention freighter traffic.



**Chart 3 (Commercial aircraft production and gross orders – 1981 to 2010E)**



**Chart 4 (Growth in commercial passenger travel — 1981 to 2008)**



*Do you have any predictions for big M&A transactions in 2010?*

We will likely see consolidation activity for tier-1 and tier-2 suppliers, as mentioned earlier, to gain scale economies and to increase industry asset utilization. We probably will not see any of the large titans — the top 10 companies — merging due to anticompetition laws, concentration of technology, and other antitrust matters. With relatively low valuations, the changing requirements for up-front risk-sharing investments, the expectation of fewer government competitions for large-scale programs, and competition from nontraditional countries, such as China, Japan, India, the United Arab Emirates, and others, we will likely see mid-tier suppliers looking for the best deals before selling out.

In addition, we expect large original equipment manufacturers (OEMs) to continue to acquire smaller companies to fill capability gaps in homeland defense, intelligence, IT services, command and control, alternative energy, cybersecurity, and related technologies. These firms are likely to increase the creation of joint ventures in order to secure international sales and to address offset requirements.

*What are your predictions for the future of the industry?*



The industry has significant long-term potential, despite its well-publicized current challenges. This is an industry that is only 106 years old. Since the Wright Brothers' first flight on December 17, 1903, it has landed a man on the moon, created the global positioning system, radar, the internet, supersonic flight, and other innovations of historic importance. It has also benefited mankind by bringing people closer together with affordable, ubiquitous air travel. It kept Berlin alive after WWII in the airlift. It brings humanitarian aid to victims of natural disasters anywhere in the world. We expect that this

trend of innovation and contribution to society at large will continue at an incredible pace. Air travel will become more affordable and safer for consumers, global security will continue to be served by the technologies produced in this industry, and new discoveries in the universe, enabled by the innovations in space exploration, will expand our knowledge base.

2009 in retrospect was the trough in the current economic cycle for AGD and as we start the new decade, we should see a steady climb in 2010 for the industry.

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