



MARKETVIEW

FALL 2018



AEROSPACE / DEFENSE AND GOVERNMENT TECHNOLOGY SOLUTIONS



Click here to access KippsDeSanto's 2018 Aerospace / Defense & Government Services M&A Survey

KippsDeSanto's Aerospace / Defense & Government Services 2018 M&A Survey

KippsDeSanto is pleased to share its first annual survey of mergers and acquisition (M&A) activity and sentiment in the Aerospace / Defense and Government Services sectors.

In this study, we asked key dealmakers from relevant sectors to share their predictions about M&A deal activity and valuations over the next year. We also asked them to share their insights on strategic drivers of M&A activity and the impact of recent events, including 2017's tax law changes and the Trump administration.

Respondents are very optimistic about the overall economy and M&A activity in the near to medium-term. They expect activity levels and valuations to increase in 2018 due in part to the December 2017 tax law changes and greater budget visibility.

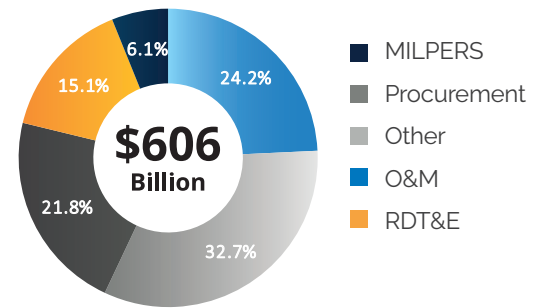
About KippsDeSanto & Co.: KippsDeSanto & Co. is an investment bank focused on delivering exceptional results for leading, growth-oriented aerospace / defense and technology companies. We leverage our creativity and industry experience to provide M&A, private financing, and strategic consulting. Capitalizing on real-time industry trends and in-depth technical and strategic analysis, our solutions-driven approach is highly structured and uniquely tailored to each client. KippsDeSanto is recognized for its market insight and broad industry relationships. We help market leaders realize their full strategic value. KippsDeSanto, member FINRA / SIPC, is not affiliated with other companies mentioned herein. For more information, visit www.kippsdesanto.com.

<p>October 2018</p> <p>Select Power Manager Assets a line of business of Protonex a Ballard™ company BALLARD have agreed to be acquired by REVISION</p>	<p>September 2018</p> <p>emagine it has received a strategic investment from ENLIGHTENMENT CAPITAL</p>	<p>September 2018</p> <p>CAPEWELL AERIAL SYSTEMS LLC a portfolio company of CAPITALWORKS has been acquired by ARGOSY PRIVATE EQUITY</p>	<p>August 2018</p> <p>MacB has been acquired by ALION SCIENCE AND TECHNOLOGY a portfolio company of VERITAS CAPITAL</p>	<p>July 2018</p> <p>GenNx360 has acquired PAG a portfolio company of PNC RIVERARCH CAPITAL</p>
<p>July 2018</p> <p>GERMANE SYSTEMS™ has been acquired by mercury systems.</p>	<p>July 2018</p> <p>Ai Aitech has been acquired by FIMI Opportunity Funds</p>	<p>May 2018</p> <p>TMA Complex Problems Solved has been acquired by NS2 NATIONAL SECURITY SERVICES</p>	<p>April 2018</p> <p>● STRATEGIC RESOURCES ● INTERNATIONAL has been acquired by Peraton™ a portfolio company of VERITAS CAPITAL</p>	<p>February 2018</p> <p>THEMIS has been acquired by mercury systems.</p>
<p>January 2018</p> <p>rgs. a portfolio company of CM EQUITY PARTNERS has been acquired by USfalcon.</p>	<p>January 2018</p> <p>BTP Systems Engineering and Technical Services has been acquired by serco</p>	<p>January 2018</p> <p>ADG CREATIVE BE HEAD has been acquired by CHENGA CORPORATION</p>	<p>November 2017</p> <p>has been acquired by MAG AEROSPACE supported by CLAIRVEST</p>	<p>October 2017</p> <p>WBB a portfolio company of LAKE CAPITAL has been acquired by H. I. G. CAPITAL</p>
<p>October 2017</p> <p>dominion CONSULTING has merged with TERATHINK</p>	<p>September 2017</p> <p>JBS INTERNATIONAL has been acquired by South Carolina</p>	<p>July 2017</p> <p>NE5 Net-Centric Enterprise Solutions has been acquired by CSRA</p>	<p>April 2017</p> <p>BEI PRECISION SYSTEMS & SPACE COMPANY a subsidiary of INNOVISTA SENSORS a portfolio company of THE CARLYLE GROUP PAI and Schneider Electric has been acquired by J.F. Lehman & Company</p>	<p>April 2017</p> <p>IR INFORELIANCE has been acquired by ECS People - Values - Purpose</p>

Operational / Funding Environment

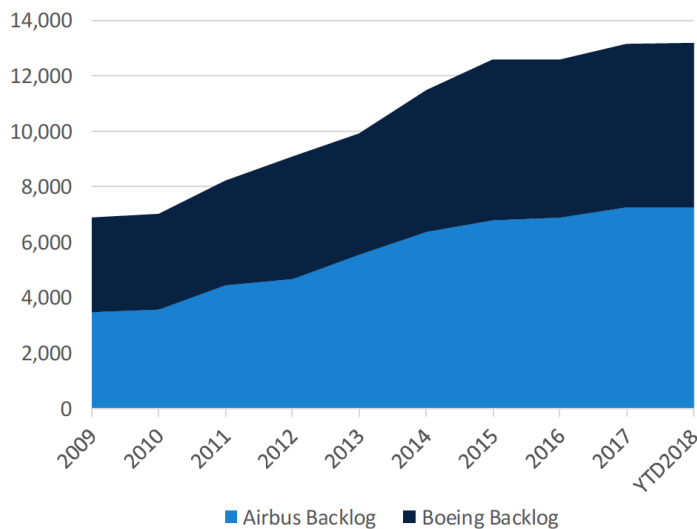
On September 14th, President Trump signed into law a Department of Defense (“DoD”) minibuss spending bill for government fiscal year (“GFY”) 2019, authorizing a total of \$674 billion in defense spending. The DoD funding represents a 2.7% year-over-year (“YoY”) increase in spending over GFY2018 levels and allocates \$606 billion in base discretionary funds and \$68 billion in Overseas Contingency Operations (“OCO”) funds.

GFY2019 Base Budget Breakdown⁽¹⁾



The legislation is consistent with the key objective of increasing warfighter readiness outlined in President Trump’s National Security Strategy. Key procurements highlighted in the legislation include 13 Navy ships, three DDG-51 destroyers, two VA-Class submarines, 95 F-35 aircraft, 15 KC-46 tankers, 55 AH-64 helicopters, and 13 V-22 aircraft. The bill does not directly address funding for the new Space Force, which is still under consideration by the House and Senate Appropriations Committees. This is the earliest the DoD budget has been signed into law in more than 40 years. Passing the budget ahead of the GFY-end on September 30th will help prevent the continuing resolutions and threats of government shutdowns that have occurred over the past decade.

Record Boeing and Airbus Backlog (through September)



In the aerospace sector, Boeing and Airbus have reached record backlogs through September 2018 of 5,849 and 7,383 aircraft, respectively. At the biennial Farnborough Airshow, Boeing led the way, securing \$79 billion in aircraft orders, as compared to \$69 billion in orders for Airbus. Boeing has delivered 568 aircraft through 3Q18, representing a 4% YoY increase, regardless of its supply chain issues related to fuselage and engine delays which have driven nearly record high inventory levels (50 aircraft) at its Renton facility.

Boeing is also anticipating a surge in its 737 production rates, which are projected to increase from its existing rate of 52 aircraft per month to 63 aircraft per month in 2019. Supply chain issues are expected to improve in 4Q18, and Boeing anticipates a large ramp-up in deliveries during the quarter and into early 2019. Airbus deliveries through 3Q18 reached 503, representing an 11% YoY increase; however, it too has experienced supply chain issues, notably with its engine suppliers, Pratt & Whitney and CFM International. Despite this, Airbus’ A320 narrow body aircraft is set to increase its production rate of 12 aircraft per month to 14 aircraft per month in 2019, helping to make up for the delayed deliveries caused by these issues.

(1) Source: H.R.5515 - John S. McCain National Defense Authorization Act for Fiscal Year 2019

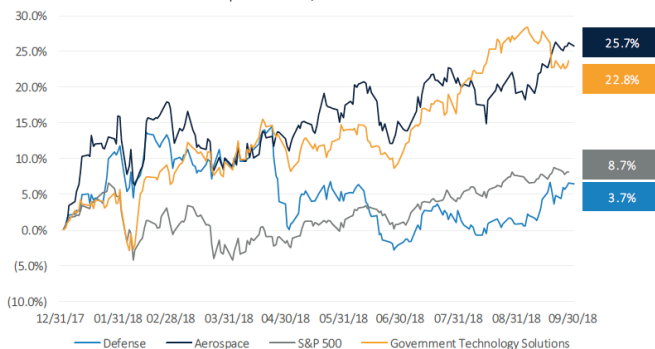
In the government technology solutions sector, IT modernization and the vulnerability of inter-agency data security have been main focal points of the Trump administration at the close of GFY2018. A 32% increase up to nearly \$6.5 billion in cloud funding obligations from 2017 will create a multitude of opportunities as the government seeks to deliver its services with private sector efficiency.⁽²⁾ The robust funding environment encourages federal agencies to find innovative and effective technologies to support cloud adoption and IT system modernization initiatives without hampering work flow or compromising security. Even across the Intelligence Community, an arena where data security continues to be a chief concern, organizations have continued a massive shift away from siloed IT systems toward shared service platforms capable of harnessing large amounts of data for rapid and informed decision making. Over the five-year horizon from 2017 – 2022, the cloud computing market is forecasted to expand at compounded annual growth rates (“CAGR”) of 10.1%, 19.5%, and 11.3% across Intelligence, Defense, and Civilian agencies, respectively as modern IT solutions, enterprise security, and efficiency drive competitive advantages for agencies and contractors alike.⁽³⁾ Significant overhauls have begun manifesting themselves in the form of large, sole-source awards that cover multiple agencies and facilitate transition away from legacy systems. For example, the General Services Administration’s (“GSA”) new Centers of Excellence IT modernization (“COE”) initiative entered Phase II at the U.S. Department of Agriculture (“USDA”) to update agency practices in IT infrastructure optimization, cloud adoption, customer experience, data analytics, and contact center services. The GSA awarded multiple-award blanket purchase agreements to ten awardees spanning various sizes. Using multiple companies to facilitate modernization, the GSA hopes to position the USDA as a “lighthouse agency,” setting the precedent for other government agencies to pursue digital transformation in new and innovative ways.

Capital Markets and Public Market Valuation Trends

In 3Q18, the aerospace, defense, and government technology solutions indices all experienced positive growth.

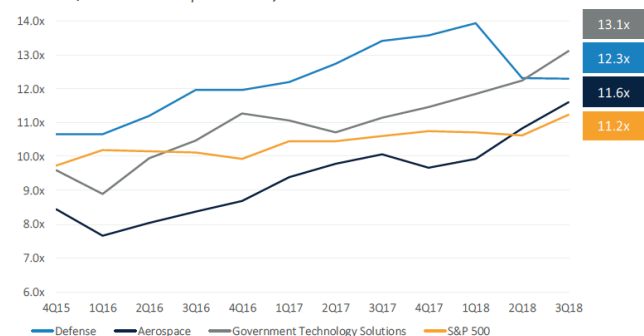
Relative Stock Price Performance⁽¹⁾

For the Nine Months Ended September 30, 2018



Median Quarterly EV / NTM EBITDA Multiples⁽¹⁾

For the Quarter Ended September 30, 2018



Aerospace shares continued to experience positive momentum, rising another 10.5% in the quarter, which represents 25.7% YTD, significantly outperforming the S&P 500 and its 8.7% YTD performance. Solid fundamentals, including record backlog levels and anticipated production rate increases, continue to drive these positive results.

(2) Source: Bloomberg Government: Cloud Services Market Expected to Hit All-Time High

(3) Source: Deltek Federal Priorities Spotlight, Cloud Computing, 2017 – 2022

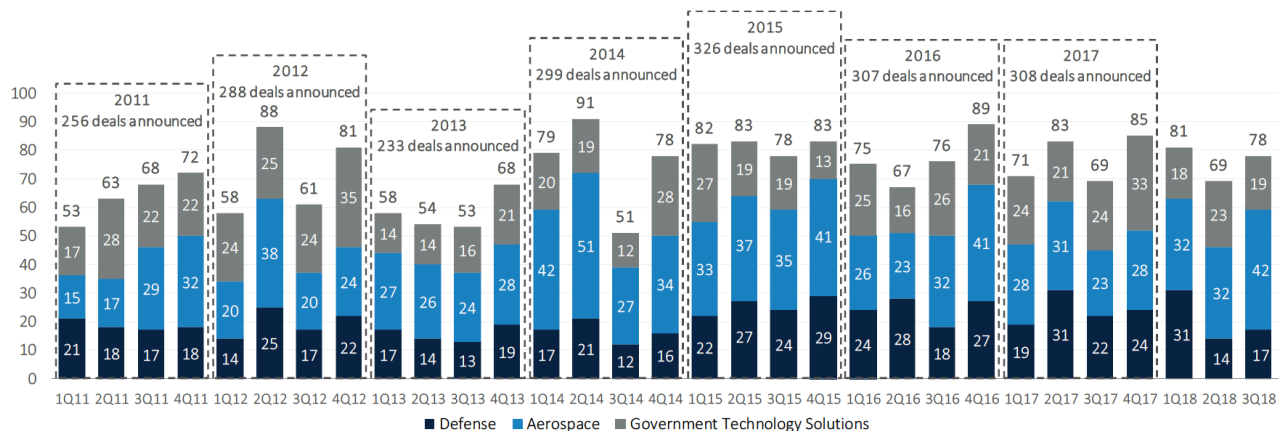
Alternatively, Embraer shares struggled during the quarter, decreasing 21.6%, driven in part by the company missing consensus earnings per share (“EPS”) estimates and the market reaction to the strategic partnership with Boeing for its commercial aircraft and services business. In line with the overall aerospace index’s rise in share price during 3Q18, the median enterprise value (“EV”) / next twelve months (“NTM”) EBITDA multiple reached 13.1x, setting a record high over the past three years after exceeding the high of 12.2x set in 2Q18.

The defense index returned to positive growth in 3Q18, rising 5.9% in the quarter, placing the index back into positive territory at 3.7% YTD. Strong performance by large defense primes tempered earlier investor anxiety, as shares in the index have begun to recover much of the decline experienced following a broad selloff in 2Q18. Valuation expectations have also stabilized following a slight downtick in the prior quarter; EV / NTM EBITDA multiples have remained steady at 12.3x. Industry bellwethers Lockheed Martin and General Dynamics each had a solid quarter, with shares rising 15.7% and 9.3%, respectively. Lockheed’s shares steadily climbed over the course of the quarter and were further buoyed by its 2Q earnings, in which the company raised internal guidance while handily beating earnings expectations. Higher revenue expectations were driven by increased win rates on classified programs in the first half of the year and earlier-than-expected sole-sourced orders. General Dynamics also reported a strong quarter, beating earnings expectations and reporting strong organic growth and bookings activity in its defense business. The government technology solutions index ended the quarter up 11.3%, marking the sixth consecutive quarter the index has posted positive returns (up 22.8% YTD). Benefitting from positive earnings announcements and a series of large contract awards, the government technology solutions index is poised to continue its positive trajectory into 4Q18 behind continued budgetary priorities of cloud and next-generation solutions. EV / NTM EBITDA multiples reflected optimism, finishing 3Q18 at a recent high of 13.1x, up from a 2Q18 multiple of 12.2x to realize a fifth consecutive quarter of growth. Seven of the eleven companies in the index posted positive returns for the quarter, and all but VSE and Vectrus are up YTD. Perspecta recorded the largest upward movement in 3Q18, finishing its first full quarter of trading up 18.8% after falling 17.4% in June. Perspecta, which was formed through the combination of Vencore, KeyPoint Government Solutions, and the DXC U.S. Public Sector business, is poised to continue its positive momentum into 4Q18 after recently announcing a \$787 million Navy award on September 6th and reporting \$195 million of pro-forma adjusted EBITDA (up 37% YoY) in its August earnings announcement. Leidos was the second largest mover in 3Q18, rebounding from a 9.1% decline in 2Q18 to finish up 16.5% in 3Q18. The company was lifted by a strong July earnings announcement where it posted adjusted earnings of \$1.12 per share, beating estimates of \$1.05 and increasing 7.7% YoY. Both ManTech and Booz Allen Hamilton also finished the quarter strong, with returns of 16.3% and 11.3%, respectively. ManTech rose after reporting 19% YoY organic revenue growth, and while Booz Allen Hamilton increased after winning three \$500+ million awards in the quarter, including a \$1.0 billion cyber defense contract – the company’s second largest cybersecurity award ever. Despite reporting positive earnings, SAIC’s shares fell 9.1% on September 10th, the same day it announced its \$2.5 billion agreement to acquire Engility with ~\$900 million of assumed debt and finished the quarter down 1.2%. Engility’s shares finished 3Q18 up 16.5% overall despite dropping 0.6% since the deal announcement.

M&A Trends & Activity

78 aerospace, defense, and government technology solutions M&A transactions were announced in 3Q18, surpassing the average volume of 72 deals per quarter since 2011, and representing a significant increase over the prior quarter. 228 transactions have been announced YTD, which is on pace with M&A activity seen through the first three quarters of 2016 and 2017. There were 42 aerospace transactions in the quarter, the largest number of quarterly deals since 2Q14. With 106 transactions announced YTD, the sector has already nearly reached 2017's level of activity, and if current trends persist, it would be on pace for more than 140 transactions for the full year. ST Engineering's U.S.-based subsidiary, VT Systems, entered into an agreement to acquire Middle River Aviation Systems from General Electric ("GE") for \$630 million. This transaction significantly deepens ST Engineering's presence in the original equipment manufacturer ("OEM") market through the addition of high-value engine nacelle manufacturing capabilities. For GE, the divestiture represents the latest in a line of assets the company has shed, which it does not believe aligns with core strategies in its aviation, power, and healthcare divisions. Space-related deals were also active during 3Q18, with five transactions having exposure to the sector. Notably, Boeing announced its acquisition of Millennium Space Systems in August; this complements Boeing's existing launch vehicle and satellite capabilities and better positions the company to take advantage of the rapidly expanding small satellite ("smallsat") market.

M&A Transaction Volume⁽¹⁾ For the Calendar Quarters 1Q11 – 3Q18

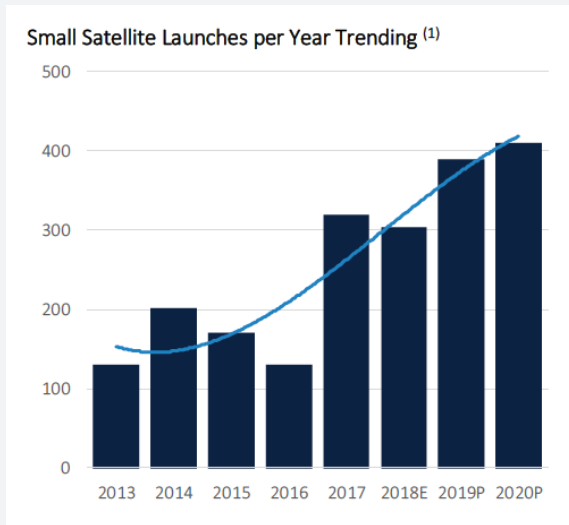


There were 17 defense transactions announced in 3Q18, a slight uptick over the prior quarter, putting the industry on pace for 80-90 transactions in 2018. Mercury Systems broadened its product offering and customer base through its \$45 million acquisition of Germane Systems, a provider of rugged servers, computers, and storage systems. This transaction complements Mercury's February acquisition of Themis Computer, creating a \$100+ million line of business focused on rugged computing solutions for defense applications. KippsDeSanto & Co. served as exclusive financial advisor to Germane and Themis in their respective transactions. The acquisition of Germane also builds on a broader trend in the defense electronics subsector, with buyers seeking to broaden technology portfolios, bolster their ability to deliver integrated solutions and systems, and gain increased presence on vital and enduring defense programs, fueling the considerable interest and rising transaction valuations the subsector has realized in recent years.

(1) S&P Capital IQ, company filings, and KippsDeSanto research

The 19 government technology solutions transaction announcements this past quarter bring the YTD deal count in the sector to 60 (e.g. SAIC's blockbuster acquisition of Engility). There were several key takeaways from 3Q18 M&A activity. Large-scale industry consolidation continues to heavily shape the market, private equity firms are aggressively competing with strategic buyers for coveted assets, and acquirers continue to seek higher-end capabilities focused on DoD / Intel and NextGen IT. The SAIC deal highlights ongoing industry consolidation as scale remains a critical differentiator in the market. Middle-market activity remains robust in 2018, spurred in large part by private equity buyers looking for new platforms and bolt-on acquisitions. Of the 19 announced transactions in 3Q18, two involved private equity buyers and six involved private-equity portfolio companies. The financial sponsors active in 3Q18 are familiar names in the space: AE Industrial Partners, Arlington Capital, Enlightenment, H.I.G., New Mountain Capital, NewSpring, and Veritas. Veritas-backed Alion acquired MacAulay-Brown to expand its national security footprint and add NextGen engineering expertise in electronic warfare, artificial intelligence, cybersecurity, and cloud solutions. Arlington Capital acquired Tyto Athene (formerly Black Box federal), a provider of networking and secure communications, while its portco Integrity Applications Incorporated acquired Dependable Global Solutions, a provider of cybersecurity and intelligence services.

AEROSPACE UPDATE



SMALL SATELLITES CONTINUE TO ALTER THE LANDSCAPE OF THE SPACE INDUSTRY

The smallsat market has been rapidly transforming since 2013, as new technologies have emerged for an increasing number of applications. The number of smallsats is expected to quadruple by 2025, causing spending to reach \$22.0 billion (up from \$12.5 billion in 2016). While much of this growth will come via the commercial sector, specifically in the areas of imaging / earth observations and satellite communications, the government remains an important player in the science, exploration, and national defense aspects of the industry. Driven by the significant market expansion of smallsats, downstream and adjacent markets, such as weather modeling and prediction, are expected to experience similar tailwinds in the near-term.

Farnborough Airshow Total Aircraft Order Value (\$ in billions)⁽²⁾



FARNBOROUGH AIRSHOW 2018 SETS A RECORD \$154 BILLION IN ORDERS

England’s biennial Farnborough Air Show was headlined by more than \$154 billion of aircraft orders this year. Industry giants Boeing and Airbus experienced an uptick in performance with more than 900 orders and commitments from customers. This adds to already robust backlogs of 7,383 for Airbus and 5,849 for Boeing as of 3Q18. However, this tally was overshadowed by an estimated 400 deals where the names of the buyers were withheld. Airbus believes ongoing trade tensions have made some companies nervous about appearing to side with the U.S. or other economic powers in a growing global trade battle. In line with the past, the A320neo and 737 MAX families accounted for the vast majority of the orders and commitments; however, as backlogs grow, OEMs may soon feel pressure to provide quality parts on time. On the whole, the airshow confirmed increased confidence in global aerospace trade.

Airbus and Boeing 2018 Total Aircraft Deliveries as of 3Q18



AIRBUS AND BOEING'S SUPPLY CHAIN SHORTAGES LEAD TO TROUBLES MEETING DEMAND

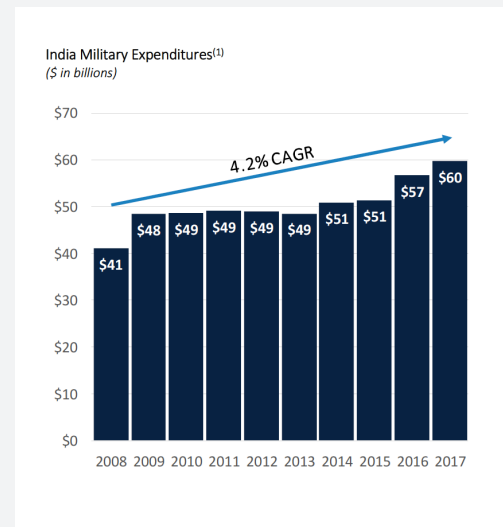
Airbus and Boeing, along with other aircraft OEMs, are having trouble keeping up with aircraft demand. Cascading supply chain issues in multiple facets of assembly, such as engine and fuselage shortages, have forced Airbus and Boeing to deliver fewer aircraft than expected in 3Q18. In addition, a shortage of experienced workers is contributing to the slowdown. In order to combat struggling parts manufacturers delaying deliveries, Boeing has been vertically integrating to further control deliveries and timing, as well as to bolster margins. Meanwhile, Airbus has asked suppliers like Spirit Aerosystems to build up future inventory, and audited vendors to ensure they have the staff / resources to keep up with production. While supply chain logjams continue to impact immediate deliveries, both companies are confident in maintaining year-end delivery schedules and financial forecasts.

(1) Small Satellite Market Intelligence report 2Q18
 (2) Air Transport World Farnborough Air Show 2018 Orders, Commitments, and Totals
 (3) KippsDeSanto research

DEFENSE UPDATE

U.S. BUILDS MILITARY RELATIONSHIP WITH INDIA

The U.S. and India signed a breakthrough security accord that would allow India to purchase advanced U.S. weaponry. With this agreement, India and the U.S. will participate in joint military exercises. The U.S. sees its alliance with India as a critical measure in countering the growing Chinese influence in the region. This deal caps off a budding military relationship between the two countries; over the past decade, weapons sales from the U.S. to India increased from relatively insignificant amounts prior to 2008 to a cumulative \$15 billion through 2018. India is expected to order several F-16 and F-18 fighter jets from Lockheed Martin to modernize its aircraft capabilities, which would replace its existing Russian models. Moreover, India is forecast to spend \$30 billion in military modernization over the next seven years; however, 70% of the infrastructure required to sustain and support the spending has not been built. This provides a tremendous opportunity for U.S. companies to benefit, as they have the expertise and technology to provide the necessary infrastructure to India.



PENTAGON PROPOSES SPACE FORCE AS THE SIXTH BRANCH OF THE MILITARY

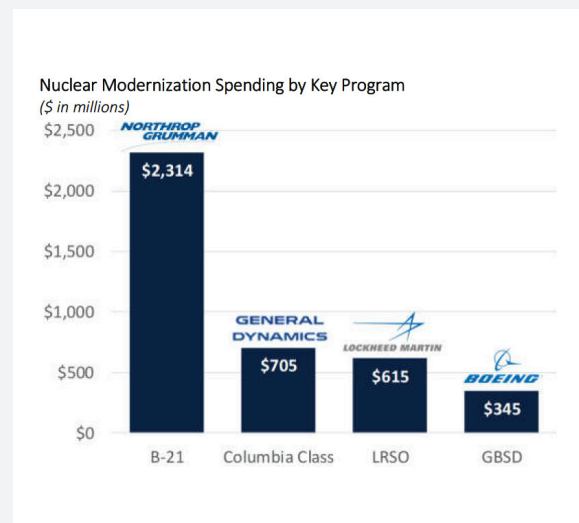
The Pentagon has proposed a four-pronged approach for the U.S. military's future in space that includes the creation of a Space Force as a sixth branch of the armed forces. As Russia and China emerge as potential U.S. adversaries in space, the formation of a Space Force has become a top U.S. priority. The approach requires the following phases: (i) the DoD establishes a Space Development Agency to develop and field space capabilities; (ii) the Pentagon develops a Space Operations Force to support combatant commanders; (iii) the DoD creates the governance, services, and support functions of the Space Force to be approved by Congress; (iv) the Pentagon creates the U.S. Space Command, led by a four-star general.

Potential U.S Space Force Priorities



RDT&E BUDGET FUNDING HIGHLIGHTS

Research, Development, Test & Evaluation ("RDT&E") funding for GFY2019 is budgeted at \$131 billion, a 4.5% increase from GFY2017 with spending highly concentrated among the DoD and DHS (~70% of total funding between the two). The DoD's allocation is 16.2% above 2017 levels, representing a renewed focus on modernizing U.S. defense capabilities to keep pace with adversaries. Considering recent nuclear advancements made by Russia and China, the DoD has made developing its nuclear competencies one of the highest priorities. Key platforms, including the B-21 Bomber, Columbia Class submarine, Long Range Standoff ("LRSO") Missile, and Ground Based Strategic Deterrent ("GBSD") platforms, are expected to experience significant growth as a result of these initiatives.



(1) Source: South Korean Ministry of National Defense and Japanese Ministry of Defense

GOVERNMENT TECHNOLOGY SOLUTIONS UPDATE

Commercial Players Influence Federal Cloud Adoption



"We are a solid cloud platform that the federal government can put their trust in... if the IC can trust it, so can the DOD."
— Dana Barnes, VP of Microsoft's National Security Group

"Raytheon's efforts to become more like a Silicon Valley startup and less like a traditional Beltway contractor equip it with a range of in-demand skills... which would add growth potential on top of priority areas such as classified space and cyber programs." — Joey Cresta, Technology Business Research Inc.

"Right now the big growth driver is the shift from private to public cloud. In the past, agencies were more comfortable building cloud data centers on-premises, but now, as a result of factors, they're going to commercial providers." — Chris Cornillie, Bloomberg Government

COMMERCIAL ATTENTION INTO THE FEDERAL MARKET

The federal market has drawn renewed interest from large commercial entities, such as Amazon, Google, Oracle, and Microsoft as they square off over sizable and lucrative government cloud computing contracts. The Office of Management and Budget "Cloud Smart" strategy posits federal agencies have struggled to efficiently adopt and implement new cloud technologies in a timely manner, lacking the certified personnel necessary for a successful transition. This dynamic positions innovative and agile contractors with differentiated expertise deploying commercial technologies, such as Appian, Salesforce, and ServiceNow, to fill that skill gap and deliver highly-sought after capabilities and domain knowledge for agencies struggling to transition to cloud services. Situated at the nexus of priority spending, the scarcity value of companies fluent in these cloud computing technologies drives significant enterprise value as federal customers seek to procure these services and the buyer community realizes the fundamental value to be gained through tactical partnerships and strategic acquisitions.

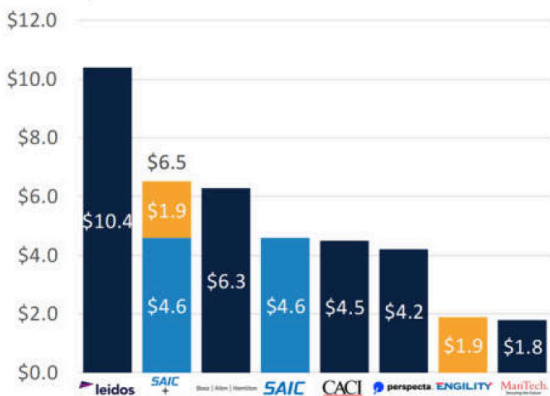
Recent AI / Machine Learning Acquisitions⁽¹⁾

Buyer	Seller	Deal Value	Date
Microsoft	lobe	ND	Sep-18
ALION	WACB	ND	Aug-18
DataRobot	nexosis	ND	Jul-18
Salesforce	datorama	\$800M	Jul-18
Microsoft	semantic search	ND	May-18
On Assignment	ECS	\$775M	Apr-18

ARTIFICIAL INTELLIGENCE / MACHINE LEARNING

Federal agencies and the DoD are increasingly relying on AI as a priority that will allow them to efficiently analyze high volumes of data. AI and machine learning spending at the DoD is expected to increase, as the Pentagon estimates it will invest \$1.7 billion over the next five years towards establishing the Joint Artificial Intelligence Center ("JAIC"). The move towards AI comes partly in response to Russia and China racing to integrate AI into their military applications. Large players in this space include Google, IBM, Microsoft, and Booz Allen Hamilton — which recently won a five-year \$885 million DoD and IC contract. As AI continues to materialize in the federal space, companies will seek to bolster their capabilities through strategic acquisitions for talented personnel and leading technologies, including Microsoft, which recently made its third AI acquisition of 2018. The integration of AI will also require advanced data preparation and cybersecurity services, given that the integrity of the input data is crucial to AI's mission.

Select Public Company Government Contractors by Revenue (\$ in billions)



CONTINUED FEDERAL CONSOLIDATION WHO IS NEXT?

Public government contractors continue to leverage M&A, turning to transformative acquisitions to achieve increased scale and meaningful cost synergies in today's increasingly competitive marketplace. SAIC's acquisition of Engility is the latest in a long line of industry-shaping deals, and follows General Dynamics' successful bid for CSRA over SAIC and CACI, who was reported to also have been an interested party in the Engility deal. CACI's interest in both deals suggests they are seeking a transformative deal of their own. As large, public government contractors attempt to gain scale and diversify capabilities and customers via consolidation, middle market players that are pushed to the periphery may also become attractive acquisition targets.

(1) S&P Capital IQ, company filings, and KippsDeSanto research

Public Company Trading Analysis⁽¹⁾

(\$ in millions, except per share amounts)

Aircraft and Engine OEMs	Stock Price 09/30/18	% of 52 Week High	Market Cap	Enterprise Value	CY2018E			CY2019P			EV / CY2018E		EV / CY2019P	
					Rev.	EBITDA	Margin	Rev.	EBITDA	Margin	Rev.	EBITDA	Rev.	EBITDA
Boeing	\$371.90	99.3%	\$213,660	\$216,075	\$98,581	\$14,070	14.3%	\$104,807	\$15,646	14.9%	2.19x	15.4x	2.06x	13.8x
General Electric Co	11.29	45.4%	98,122	220,351	121,551	17,022	14.0%	122,476	20,888	17.1%	1.81x	12.9x	1.80x	10.5x
Airbus SE	125.69	97.3%	97,433	99,165	75,412	8,549	11.3%	80,800	10,260	12.7%	1.31x	11.6x	1.23x	9.7x
Safran SA	140.23	98.7%	61,134	66,194	24,351	4,279	17.6%	26,009	4,923	18.9%	2.72x	15.5x	2.55x	13.4x
MTU Aero Engines AG	225.51	98.0%	11,644	12,826	4,985	931	18.7%	5,461	1,010	18.5%	2.57x	13.8x	2.35x	12.7x
Median		98.0%	\$97,433	\$99,165	\$75,412	\$8,549	14.3%	\$80,800	\$10,260	17.1%	2.19x	13.8x	2.06x	12.7x

Aerostructures	Stock Price 09/30/18	% of 52 Week High	Market Cap	Enterprise Value	CY2018E			CY2019P			EV / CY2018E		EV / CY2019P	
					Rev.	EBITDA	Margin	Rev.	EBITDA	Margin	Rev.	EBITDA	Rev.	EBITDA
Spirit AeroSystems	91.67	87.1%	9,763	11,157	7,254	1,120	15.4%	7,752	1,245	16.1%	1.54x	10.0x	1.44x	9.0x
Hexcel	67.05	91.3%	5,868	6,768	2,187	512	23.4%	2,377	567	23.8%	3.09x	13.2x	2.85x	11.9x
Senior plc	4.07	92.8%	1,702	1,899	1,384	175	12.7%	1,462	198	13.5%	1.37x	10.8x	1.30x	9.6x
Triumph Group	23.30	67.4%	1,161	2,648	3,356	237	7.1%	3,440	286	8.3%	0.79x	11.2x	0.77x	9.3x
Median		91.3%	\$1,702	\$2,648	\$2,187	\$237	12.7%	\$2,377	\$286	13.5%	1.37x	11.2x	1.30x	9.6x

Aerospace Suppliers	Stock Price 09/30/18	% of 52 Week High	Market Cap	Enterprise Value	CY2018E			CY2019P			EV / CY2018E		EV / CY2019P	
					Rev.	EBITDA	Margin	Rev.	EBITDA	Margin	Rev.	EBITDA	Rev.	EBITDA
Arconic	22.01	70.6%	10,630	15,601	13,940	1,916	13.7%	14,365	2,137	14.9%	1.12x	8.1x	1.09x	7.3x
Curtiss-Wright	137.42	95.8%	6,044	6,639	2,477	485	19.6%	2,612	524	20.1%	2.68x	13.7x	2.54x	12.7x
Meggitt PLC	7.39	97.0%	5,707	7,188	2,663	623	23.4%	2,814	672	23.9%	2.70x	11.5x	2.55x	10.7x
RBC Bearings	150.36	95.1%	3,603	3,691	710	177	25.0%	791	202	25.6%	5.20x	20.8x	4.67x	18.2x
Moog Inc.	85.97	91.5%	3,116	3,818	2,736	343	12.5%	2,803	369	13.1%	1.40x	11.1x	1.36x	10.4x
Esterline Technologies	90.95	93.8%	2,678	3,074	2,028	298	14.7%	2,076	320	15.4%	1.52x	10.3x	1.48x	9.6x
Astronics	43.50	88.0%	1,220	1,474	800	104	13.0%	832	122	14.6%	1.84x	14.1x	1.77x	12.1x
Ducommun	40.84	98.6%	466	693	614	66	10.7%	634	74	11.6%	1.13x	10.5x	1.09x	9.4x
Héroux-Devtek	11.98	92.4%	435	459	344	52	15.1%	439	68	15.6%	1.34x	8.9x	1.05x	6.7x
Median		93.8%	\$3,116	\$3,691	\$2,028	\$298	14.7%	\$2,076	\$320	15.4%	1.52x	11.1x	1.48x	10.4x

Aftermarket / MRO	Stock Price 09/30/18	% of 52 Week High	Market Cap	Enterprise Value	CY2018E			CY2019P			EV / CY2018E		EV / CY2019P	
					Rev.	EBITDA	Margin	Rev.	EBITDA	Margin	Rev.	EBITDA	Rev.	EBITDA
TransDigm Group	372.30	98.6%	19,594	30,632	3,910	1,909	48.8%	4,155	2,058	49.5%	7.83x	16.0x	7.37x	14.9x
HEICO	92.61	98.4%	10,946	11,733	1,803	465	25.8%	1,931	499	25.9%	6.51x	25.2x	6.08x	23.5x
Singapore Technologies Engineering	2.60	96.2%	8,126	8,222	5,059	620	12.3%	5,489	693	12.6%	1.63x	13.3x	1.50x	11.9x
BBA Aviation	3.92	81.2%	4,032	5,226	2,419	460	19.0%	2,705	496	18.3%	2.16x	11.4x	1.93x	10.5x
KLX Inc.	62.78	76.1%	3,186	4,049	2,000	389	19.5%	2,138	437	20.4%	2.02x	10.4x	1.89x	9.3x
SIA Engineering	2.16	84.3%	2,416	2,036	797	95	11.9%	804	96	11.9%	2.55x	21.5x	2.53x	21.3x
AAR Corp.	47.89	93.0%	1,645	1,832	1,896	155	8.2%	2,187	192	8.8%	0.97x	11.8x	0.84x	9.6x
Median		93.0%	\$4,032	\$5,226	\$2,000	\$460	19.0%	\$2,187	\$496	18.3%	2.16x	13.3x	1.93x	11.9x

Public Company Trading Analysis, cont.⁽¹⁾

(\$ in millions, except per share amounts)

Defense Primes	Stock Price 09/30/18	% of 52 Week High	Market Cap	Enterprise Value	CY2018E			CY2019P			EV / CY2018E		EV / CY2019P	
					Rev.	EBITDA	Margin	Rev.	EBITDA	Margin	Rev.	EBITDA	Rev.	EBITDA
Boeing	\$371.90	99.3%	\$213,660	\$216,075	\$98,267	\$13,968	14.2%	\$104,906	\$15,717	15.0%	2.20x	15.5x	2.06x	13.7x
Lockheed Martin	345.96	95.3%	98,523	111,634	52,626	8,355	15.9%	55,317	8,996	16.3%	2.12x	13.4x	2.02x	12.4x
General Dynamics	204.72	89.0%	60,655	73,071	36,610	5,240	14.3%	40,189	5,680	14.1%	2.00x	13.9x	1.82x	12.9x
Raytheon	206.66	89.9%	58,952	61,422	26,959	5,152	19.1%	28,464	5,467	19.2%	2.28x	11.9x	2.16x	11.2x
Northrop Grumman	317.37	87.9%	55,262	68,854	29,982	4,354	14.5%	34,066	4,866	14.3%	2.30x	15.8x	2.02x	14.2x
BAE Systems	8.22	92.5%	26,231	28,795	24,461	2,922	11.9%	25,705	3,074	12.0%	1.18x	9.9x	1.12x	9.4x
Median		91.2%	\$59,803	\$70,962	\$33,296	\$5,196	14.4%	\$37,128	\$5,573	14.6%	2.16x	13.7x	2.02x	12.6x

Defense Systems	Stock Price 09/30/18	% of 52 Week High	Market Cap	Enterprise Value	CY2018E			CY2019P			EV / CY2018E		EV / CY2019P	
					Rev.	EBITDA	Margin	Rev.	EBITDA	Margin	Rev.	EBITDA	Rev.	EBITDA
Safran	140.23	98.7%	61,134	66,194	24,040	4,225	17.6%	25,656	4,866	19.0%	2.75x	15.7x	2.58x	13.6x
L3 Technologies	212.62	97.2%	16,654	19,275	10,166	1,366	13.4%	10,784	1,527	14.2%	1.90x	14.1x	1.79x	12.6x
Huntington Ingalls Industries	256.08	92.6%	11,093	11,976	7,748	1,125	14.5%	7,959	1,139	14.3%	1.55x	10.6x	1.50x	10.5x
FLIR	61.47	96.2%	8,484	8,433	1,812	416	23.0%	1,904	501	26.3%	4.65x	20.3x	4.43x	16.8x
Cobham	1.52	77.7%	3,625	3,697	2,529	373	14.8%	2,589	404	15.6%	1.46x	9.9x	1.43x	9.2x
AeroVironment	112.17	92.5%	2,647	2,358	342	58	17.0%	315	40	12.6%	6.90x	40.6x	7.47x	59.4x
Kongsberg Gruppen	19.27	76.7%	2,303	2,395	1,732	157	9.1%	2,234	229	10.2%	1.38x	15.3x	1.07x	10.5x
Cubic	73.05	94.4%	1,991	2,124	1,212	119	9.8%	1,340	149	11.1%	1.75x	17.9x	1.58x	14.2x
Median		93.5%	\$6,054	\$6,065	\$2,171	\$395	14.6%	\$2,411	\$452	14.2%	1.82x	15.5x	1.69x	13.1x

Defense Electronics / Comm.	Stock Price 09/30/18	% of 52 Week High	Market Cap	Enterprise Value	CY2018E			CY2019P			EV / CY2018E		EV / CY2019P	
					Rev.	EBITDA	Margin	Rev.	EBITDA	Margin	Rev.	EBITDA	Rev.	EBITDA
Harris	169.21	99.2%	19,883	23,385	6,391	1,431	22.4%	6,896	1,583	23.0%	3.66x	16.3x	3.39x	14.8x
Teledyne	246.68	98.3%	8,859	9,710	2,862	521	18.2%	2,995	548	18.3%	3.39x	18.6x	3.24x	17.7x
Viasat	63.95	79.7%	3,808	4,881	1,829	241	13.2%	2,219	442	19.9%	2.67x	20.3x	2.20x	11.0x
Mercury Systems	55.32	96.6%	2,678	2,807	562	127	22.6%	651	149	22.9%	4.99x	22.1x	4.31x	18.9x
Kratos Defense & Security Solutions	14.78	98.9%	1,533	1,644	643	57	8.8%	711	72	10.1%	2.56x	29.0x	2.31x	22.9x
Ultra Electronics	20.72	84.4%	1,505	1,730	1,000	172	17.2%	1,042	186	17.8%	1.73x	10.1x	1.66x	9.3x
Comtech Telecommunications	36.27	98.2%	865	990	587	81	13.9%	648	85	13.1%	1.69x	12.2x	1.53x	11.7x
Median		98.2%	\$2,678	\$2,807	\$1,000	\$172	17.2%	\$1,042	\$186	18.3%	2.67x	18.6x	2.31x	14.8x

Homeland Security	Stock Price 09/30/18	% of 52 Week High	Market Cap	Enterprise Value	CY2018E			CY2019P			EV / CY2018E		EV / CY2019P	
					Rev.	EBITDA	Margin	Rev.	EBITDA	Margin	Rev.	EBITDA	Rev.	EBITDA
Smiths Group	19.51	82.6%	7,724	8,916	4,248	856	20.1%	4,487	895	20.0%	2.10x	10.4x	1.99x	10.0x
MSA Safety Incorporated	106.44	97.8%	4,091	4,414	1,357	282	20.8%	1,422	308	21.7%	3.25x	15.6x	3.10x	14.3x
Axon	68.43	89.5%	3,991	3,679	412	62	15.1%	479	82	17.2%	8.93x	NM	7.67x	NM
OSI Systems, Inc.	76.31	79.0%	1,381	1,660	1,090	166	15.2%	1,172	193	16.4%	1.52x	10.0x	1.42x	8.6x
American Outdoor Brands	15.53	94.1%	845	1,014	624	105	16.8%	647	113	17.5%	1.62x	9.7x	1.57x	9.0x
Median		89.5%	\$3,991	\$3,679	\$1,090	\$166	16.8%	\$1,172	\$193	17.5%	2.10x	10.2x	1.99x	9.5x

(1) S&P Capital IQ, company filings, and KippsDeSanto research
NM = not meaningful

Public Company Trading Analysis, cont.⁽¹⁾

(\$ in millions, except per share amounts)

Government Technology Solutions	Stock Price 09/30/18	% of 52 Week High	Market Cap	Enterprise Value	CY2018E			CY2019P			EV / CY2018E		EV / CY2019P	
					Rev.	EBITDA	Margin	Rev.	EBITDA	Margin	Rev.	EBITDA	Rev.	EBITDA
Leidos Holdings	\$69.16	95.7%	\$10,408	\$13,175	\$10,310	\$1,076	10.4%	\$10,820	\$1,155	10.7%	1.28x	12.2x	1.22x	11.4x
Booz Allen Hamilton	49.63	94.4%	7,073	8,726	6,526	632	9.7%	6,953	663	9.5%	1.34x	13.8x	1.25x	13.2x
CACI International	184.15	91.7%	4,550	5,545	4,633	430	9.3%	4,947	452	9.1%	1.20x	12.9x	1.12x	12.3x
Perspecta Inc.	25.72	92.9%	4,263	6,912	4,219	NA	NA	4,305	721	16.8%	1.64x	NA	1.61x	9.6x
SAIC	80.60	86.4%	3,425	4,327	4,580	333	7.3%	4,743	355	7.5%	0.94x	13.0x	0.91x	12.2x
ManTech International	63.30	92.9%	2,505	2,528	1,945	168	8.6%	2,108	186	8.8%	1.30x	15.1x	1.20x	13.6x
ICF International	75.45	91.7%	1,423	1,660	1,311	123	9.4%	1,411	139	9.8%	1.27x	13.5x	1.18x	12.0x
Engility Holdings	35.99	93.4%	1,331	2,225	1,897	168	8.9%	1,925	171	8.9%	1.17x	13.2x	1.16x	13.0x
KeyW	8.66	88.1%	428	705	507	45	9.0%	516	47	9.2%	1.39x	15.5x	1.37x	14.9x
VSE Corporation	33.13	55.3%	360	560	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vectrus, Inc.	31.19	75.2%	351	385	1,275	55	4.3%	1,291	59	4.6%	0.30x	7.0x	0.30x	6.5x
Median		91.7%	\$2,505	\$2,528	\$3,082	\$168	9.0%	\$3,206	\$270	9.1%	1.27x	13.2x	1.19x	12.2x

Engineering & Construction	Stock Price 09/30/18	% of 52 Week High	Market Cap	Enterprise Value	CY2018E			CY2019P			EV / CY2018E		EV / CY2019P	
					Rev.	EBITDA	Margin	Rev.	EBITDA	Margin	Rev.	EBITDA	Rev.	EBITDA
Jacobs Engineering	76.50	98.2%	10,856	12,464	16,463	1,199	7.3%	17,329	1,293	7.5%	0.76x	10.4x	0.72x	9.6x
AECOM	32.66	81.9%	5,251	8,512	20,293	928	4.6%	20,961	1,074	5.1%	0.42x	9.2x	0.41x	7.9x
Babcock International	9.43	83.3%	4,759	6,522	7,038	893	12.7%	7,292	916	12.6%	0.93x	7.3x	0.89x	7.1x
Tetra Tech	68.30	94.6%	3,779	4,003	2,245	259	11.5%	2,360	282	12.0%	1.78x	15.5x	1.70x	14.2x
KBR	21.13	97.4%	2,973	3,555	4,853	412	8.5%	5,353	404	7.5%	0.73x	8.6x	0.66x	8.8x
Median		94.6%	\$4,759	\$6,522	\$7,038	\$893	8.5%	\$7,292	\$916	7.5%	0.76x	9.2x	0.72x	8.8x

(1) S&P Capital IQ, company filings, and KippsDeSanto research
NM = not meaningful

Select Recent Aerospace / Defense M&A⁽¹⁾

(\$ in millions)

Announce		Target	Target Description	EV	Revenue	EBITDA	Margin	EV / LTM	
Date	Buyer / Investor							Rev.	EBITDA
09/30/18	Behrman Capital	KSARIA	Provides mission-critical connectivity solutions for the aerospace and defense end markets	ND	ND	ND	ND	ND	ND
09/24/18	L3 Technologies, Inc.	ASV Global, LLC	Provides unmanned surface vessel and autonomous vessel control systems	ND	ND	ND	ND	ND	ND
09/20/18	Braidy Industries, Inc.	NanoAI, LLC	Provides the design, development, and commercialization of high-performance aluminum alloys based on scientifically-designed nanostructures	ND	ND	ND	ND	ND	ND
09/19/18	Kaiser Aluminum Corp.	Imperial Machine & Tool Co.	Provides multi-material additive manufacturing and machining technologies for aerospace and defense and various other applications	ND	ND	ND	ND	ND	ND
09/18/18	Timken Co.	Rollon Group	Provides design and manufacture of engineered linear guides, telescopic rails, and linear actuators used in a broad array of industries	ND	140.0	ND	ND	ND	ND
09/18/18	BBA Aviation plc / Ontic	Firstmark Corp.	Provides highly engineered, proprietary components and subsystems for the aerospace and defense industries	97.0	ND	8.7	ND	ND	11.1x
09/17/18	Modern Aviation (Tiger Infrastructure Partners)	Centennial Airport assets of Xjet Holdings, LLC	Provides a fixed base operator with more than 50,000 square feet of climate-controlled hangars which accommodate business jets	ND	ND	ND	ND	ND	ND
09/17/18	Snow Phipps Group	BlackHawk Industrial Distribution, Inc.	Provides distribution of cutting tools, abrasives, and industrial MRO products used in manufacturing, aerospace & defense, energy, and other markets	ND	ND	ND	ND	ND	ND
09/17/18	Desser Holding Company LLC (Graham Partners)	AOG Aviation Spares, LLC and Seinus, LLC (AOG / Seginus)	Provides component repair and overhaul services, producing replacement PMA parts that are sold to airline operators, repair stations, and global distributors	ND	ND	ND	ND	ND	ND
09/17/18	VirTex Enterprises, L.P.	Insight Equity Holdings, LLC	Provides contract manufacturing of highly reliable components to the aerospace, defense, medical, and industrial electronics industries	ND	ND	ND	ND	ND	ND
09/13/18	VT Systems, Inc.	GE Middle River Aviation Systems, LLC	Provides the design, development, production, and sale of engine nacelle systems and their thrust reversers for both narrow-body and wide-body aircraft	630.0	525.0	63.0	12.0%	1.20x	10.0x
09/10/18	TAE Aerospace Pty. Ltd	Kiddie Aerospace and Defense Australia Pty Ltd	Provides automatic fire extinguishing systems for military vehicles used by the U.S. military and international allies	ND	ND	ND	ND	ND	ND
09/07/18	Argosy Private Equity	Capewell Aerial Systems	Provides engineered products for aerial delivery, life support, and tactical gear for military, law enforcement, and humanitarian agencies worldwide	ND	ND	ND	ND	ND	ND
09/07/18	Coriolis Composites	MF Tech	Provides robotic filament winding, a technique used to manufacture a wide variety of composite parts	ND	ND	ND	ND	ND	ND
09/06/18	Gooch & Housego plc	Gould Technology, LLC	Provides research, development, and manufacturing of highly reliable fiber optic components and integrated assembly solutions	16.4	6.3	\$1.6	25.4%	2.60x	10.3x
09/06/18	Polaris Industries, Inc.	WSI Industries	Provides complex, high-precision parts for aerospace, defense, and various other industries	23.9	ND	ND	ND	ND	ND
09/05/18	CORE Industrial Partners, LLC	Midwest Composite Technologies, Inc.	Provides additive manufacturing of prototype and low-volume production components for a variety of end markets, including the aerospace market	ND	ND	ND	ND	ND	ND
09/05/18	PrecisionHawk, Inc.	HAZON, Inc.	Provides extensive aviation experience, standards-based operating procedures, certified drone flight operations, and inspection services	ND	ND	ND	ND	ND	ND
09/05/18	Valence Surface Technologies	Triumph Processing Inc.	Provides metal finishing on parts up to 110 ft in length and 14 feet in width / depth	ND	ND	ND	ND	ND	ND
09/04/18	Transcat, Inc.	Angels Instrumentations, Inc.	Provides calibration services, including RF & electronic test equipment, physical, dimensional, thermal, flow, and torque calibrations	4.7	4.0	ND	ND	1.18x	ND
08/31/18	Revision Military, Inc.	Non-Core Power Manager assets of Protonex Technology Corp.	Provides advanced fuel cell power solutions for portable, remote, and mobile applications	16.0	ND	ND	ND	ND	ND
08/30/18	Inertial Aerospace Services (Subsidiary of Heico Corp.)	Optical Display Engineering, LLC	Provides repair services for LCD screens and display modules for aviation displays used in civilian and military aircraft	ND	ND	ND	ND	ND	ND
08/27/18	Omni-Lite Industries Canada, Inc.	Monzite Corp.	Provides multi-chip, microelectronic components for high performance electronic sensors	ND	1.5	ND	ND	ND	ND
08/24/18	One Stop Systems, LLC	Concept Development, Inc.	Provides custom high-performance computing systems for airborne in-flight entertainment systems	5.9	ND	ND	ND	ND	ND
08/22/18	Tech Mahindra Ltd.	Inter-Informatics spol. S.r.o.	Provides aerospace design engineering services	ND	10.7	ND	ND	ND	ND

(1) S&P Capital IQ, company filings, and KippsDeSanto research

(2) KippsDeSanto & Co. served as exclusive financial advisor

ND = not disclosed

Select Recent Aerospace / Defense M&A, cont.⁽¹⁾

(\$ in millions)

Announce		Target	Target Description	EV	Revenue	EBITDA	Margin	EV / LTM	
Date	Buyer / Investor							Rev.	EBITDA
08/21/18	Washington Equity Partners	Accu-Tube	Provides highly engineered small-diameter stainless steel tubing for the aerospace, medical, and industrial end markets	ND	ND	ND	ND	ND	ND
08/21/18	Communications & Power Industries	Orbital Systems, Ltd. / Quorum Communications, Inc.	Provides design and manufacturing associated ground-based full motion antenna products that play a key role in communications applications	ND	ND	ND	ND	ND	ND
08/17/18	Avem Partners	Future Tech Metals, Inc.	Provides roughing and finishing services for aerospace forging manufacturers	ND	ND	ND	ND	ND	ND
08/16/18	Boeing Co.	Millennium Space Systems, Inc.	Provides agile, flight-proven small-satellite solutions	ND	ND	ND	ND	ND	ND
08/14/18	Lentech, Inc.	Edge Space Systems, Inc.	Provides aerospace thermal engineering solutions for space and launch systems, high altitude balloon missions, and terrestrial instruments	ND	ND	ND	ND	ND	ND
08/14/18	Zen Technologies Ltd.	Unistring Tech Solutions Pvt. Ltd.	Provides electronic warfare solutions, advanced communication systems for defense, telemetry systems, and simulators	100%	ND	ND	ND	ND	ND
08/07/18	Element Materials Technology Group	Orbit Industries, Inc.	Provides specialization in processing for raw, semi-finished and finished products, including landing gear components, airfoils, and wheels	ND	ND	ND	ND	ND	ND
08/07/18	Shipbuilder Fincantieri S.p.A. and MERMEC	Vitrociset S.p.A.	Provides training and support in the information and communications technology field in the defense and security market	ND	19000%	ND	ND	ND	ND
08/01/18	Merritt Preferred Components	Triumph Structures (sub of Triumph Group, Inc.)	Provides aircraft structural components, specializing in complex, medium to large conventional milling, turning, and assembly to aerospace and energy industries	ND	2000%	ND	ND	ND	ND
08/01/18	CAE, Inc.	Alpha-Omega Change Engineering	Provides a range of aircrew training services, operational test and evaluation, and engineering support services to the U.S. DoD and U.S. intelligence services	2900%	ND	ND	ND	ND	ND
08/01/18	Belcan Corporation	Omega Engineering Services Limited (OES)	Provides testing and development of control equipment for use in the aerospace and industrial sectors	ND	ND	ND	ND	ND	ND
07/31/18	Geospace Technologies Corp.	Quantum Technology Sciences, Inc.	Provides tactical security and surveillance solutions to safeguard highly valued assets, critical infrastructure, borders, and perimeters	ND	ND	ND	ND	ND	ND
07/31/18	Mercury Systems, Inc.	Germane Systems, LC	Provides commercial-off-the-shelf based rugged high-performance computers, servers, and storage systems for mission-critical aerospace and defense markets	4500%	ND	ND	ND	ND	ND
07/30/18	Vance Street Capital Partners	Jet Parts Engineering, Inc.	Provides proprietary aftermarket replacement components and proprietary component repair services for commercial airline and MRO customers	ND	ND	ND	ND	ND	ND
07/30/18	GenNx360 Capital Partners	Precision Aviation Group, Inc.	Provides maintenance, repair, and overhaul and supply chain solutions for fixed and rotary-wing to diverse end markets	ND	ND	ND	ND	ND	ND
07/26/18	L3 Technologies, Inc.	Latitude Engineering, LLC	Provides UAS platforms for military and commercial use, enabling vertical takeoff and landing of an aircraft, which eliminates the use of runways	1500%	ND	ND	ND	ND	ND
07/24/18	ISR, Inc. (a subsidiary of Cubic Corporation)	Shield Aviation	Provides worldwide ISR mission support, field representative support, ISR training, ISR maintenance and logistic support, and demonstration service	ND	ND	ND	ND	ND	ND
07/17/18	Thalheimer Bros., Inc. (portco of Audax)	Mega Metals, Inc.	Provides titanium recycling services, including scrap metal recycling and inspection and testing	ND	ND	ND	ND	ND	ND
07/16/18	KLX, Inc.	John Hassall, LLC	Provides precision aircraft engine fasteners to the aerospace sector	ND	ND	ND	ND	ND	ND
07/16/18	Maxar Technologies Ltd.	Neptec Design Group Ltd.	Provides electro-optical and electro-mechanical systems and high-performance intelligent Light Detection and Ranging solutions	ND	ND	ND	ND	ND	ND
07/16/18	Allegheny Technologies, Inc.	Addaeo Manufacturing, LLC	Provides metal alloy-based additive manufacturing services for the aerospace and defense industries	ND	ND	ND	ND	ND	ND
07/16/18	Acorn Growth Companies	Berry Aviation, Inc.	Provides aviation, operational and maintenance, as well as intelligence, surveillance, and reconnaissance services worldwide	ND	ND	ND	ND	ND	ND
07/13/18	TransDigm Group, Inc.	Skandia, Inc.	Provides highly engineered seating foam, foam fabrication, flammability testing, and acoustic solutions for the business jet market	8400%	2600%	ND	ND	323%	ND
07/12/18	GS Capital Partners	Boyd Corp.	Provides highly-engineered thermal management and environmental sealing solutions	ND	ND	ND	ND	ND	ND
07/11/18	Aviation Technical Services, Inc.	Ranger Air Aviation Ltd.	Provides innovative inventory management and aircraft components for a variety of commercial airframes and engine platforms	ND	ND	ND	ND	ND	ND

(1) S&P Capital IQ, company filings, and KippsDeSanto research

(2) KippsDeSanto & Co. served as exclusive financial advisor

ND = not disclosed

Select Recent Government Technology Solutions M&A⁽¹⁾

(\$ in millions)

Announce							EBITDA		EV / LTM	
Date	Buyer / Investor	Target	Target Description	EV	Revenue	EBITDA	Margin	Rev.	EBITDA	
09/28/18	An affiliate of H.I.G Capital	Iron Bow Technologies, LLC	Provides IT solutions dedicated to successfully transforming technology investments into business capabilities for government, commercial, and healthcare clients	ND	ND	ND	ND	ND	ND	
09/20/18	Systems One Holdings, LLC	TPGS, LLC	Provides customized, mission-critical intelligence services and support with rapid response, proven talent, and exceptional service	ND	ND	ND	ND	ND	ND	
09/20/18	NewSpring Holdings, LLC	The Sentinel Company	Provides strategic consulting, operational support, and technology services to federal customers in the homeland security, law enforcement, intelligence, defense, and federal health sectors	ND	ND	ND	ND	ND	ND	
09/17/18	Planned Systems International	KINEX, Inc.	Provides mission-critical technology, modeling and simulation, software development, cybersecurity, and data solutions to the DoD and Intelligence Community	ND	ND	ND	ND	ND	ND	
09/10/18	Science Applications International Corporation (SAIC)	Engility Holdings, Inc.	Provides a wide spectrum of integrated IT and professional services to various defense, intelligence, space, and civilian customers	\$2,457.4	\$1,908.7	\$167.0	8.7%	1.29x	14.7x	
09/04/18	ByteCubed, LLC	CHIEF	Provides brand, technology, and communications solutions to government agencies, nonprofits, and corporations	ND	ND	ND	ND	ND	ND	
09/04/18	AE Industrial Partners, LP	Gryphon Technologies, LC	Provides engineering services, defense systems and integration, naval architecture, program management, test and evaluation, cybersecurity, and logistics solutions primarily to the U.S. Navy	ND	ND	ND	ND	ND	ND	
08/29/18	SpeedCast International Limited	Globecomm Systems, Inc.	Provides satellite-based managed network solutions to government, communications service providers, and commercial enterprises in the U.S. and across the globe	135.0	ND	12.0	ND	ND	ND	
08/27/18	MAG Aerospace Corp.	Ausley Associates, Inc.	Provides unmanned systems development, mission planning, and concept of operations	ND	ND	ND	ND	ND	ND	
08/20/18	Arlington Capital Partners	Tyto Athene, LLC	Provides IT solutions focused on networking, control and surveillance, secure communications, media analysis, and other advanced technologies for the government's commercial clients	75.0	ND	ND	ND	ND	ND	
08/14/18	CACI International, Inc.	Systems Engineering & Acquisition Services Business Unit of General Dynamics	Provides systems engineering and integration, design and development, test and evaluation, and programmatic support primarily to the U.S. Navy	84.0	ND	ND	ND	ND	ND	
08/03/18	American Systems Corporation	DDL OMNI Engineering, LLC	Provides innovative engineering and technical services to Federal Government and commercial customers	ND	36.7	ND	ND	ND	ND	
08/02/18	CAE, Inc.	Alpha-Omega Change Engineering	Provides operational test and evaluation, aircrew training, and engineering support services for U.S. intelligence agencies and the Defense Department	29.0	ND	ND	ND	ND	ND	
08/02/18	ICF International, Inc.	DMS Disaster Consultants	Provides a pro-active approach to pre-disaster planning, responding, identifying, and pursuing all eligible projects, while strictly complying with FEMA procedural / eligibility regulations	ND	ND	ND	ND	ND	ND	
08/02/18	Alion Science and Technology Corp.	MacAulay-Brown, Inc.	Provides advanced engineering, cybersecurity, data, and cloud solutions to various defense and intelligence customers	ND	ND	ND	ND	ND	ND	
07/31/18	Integrity Applications Incorporated	Dependable Global Solutions, Inc.	Provides cybersecurity, intelligence services, and mission assurance services	ND	ND	ND	ND	ND	ND	
07/31/18	Xator Corporation	BSR, Inc.	Provides training in diverse disciplines such as anti-terrorism, counter threat, contingency and emergency operations, specialized driving, and other skills for government and commercial clients	ND	ND	ND	ND	ND	ND	
07/24/18	Hitachi Vantara	REAN Cloud, LLC	Provides global cloud systems integration, managed services, and developed solutions of cloud-native applications across big data, machine learning, and emerging internet of things spaces	ND	ND	ND	ND	ND	ND	
07/11/18	L3 Technologies, Inc.	Azimuth Security / Linchpin Labs	Provides information security consultation on in-depth analysis of software systems, including threat modelling and design, configuration, and source code review	200.0	ND	ND	ND	ND	ND	
07/01/18	CACI International, Inc.	MRO division of Perspecta, Inc.	Provides capabilities to help customers achieve their missions, transform to digital environments, secure, modernize and optimize their enterprises, and innovate for the future	ND	ND	ND	ND	ND	ND	
06/27/18	DXC Technology	Molina Information Systems, LLC	Provides support to state Medicaid agencies in the administration of the states' Medicaid programs	266.0	ND	ND	ND	ND	ND	
06/26/18	Zivaro, Inc. (formerly Global Technology Resources, Inc. (GTRI))	Network Professionals Group, LLC (NPG)	Provides value-managed service offerings to address the growing complexity of hybrid information technology such as on-site systems integrated with cloud-based systems	ND	ND	ND	ND	ND	ND	
06/14/18	Belcan, LLC	Allegiant International, LLC	Provides advisory, tactical operations, and technical services to various brands worldwide	ND	ND	ND	ND	ND	ND	
06/07/18	Culmen International, LLC	Analytic Strategies, LLC (Planet Risk Federal Services)	Provides enterprise analytics services to the U.S. federal government	ND	ND	ND	ND	ND	ND	
06/04/18	Qualys, Inc.	Second Front Systems, Inc.	Provides advisory services to technology companies in the national security market, leveraging proof-of-concept pilots, lightweight systems integration, and a range of contracting vehicles	ND	ND	ND	ND	ND	ND	

(1) S&P Capital IQ, company filings, and KippsDeSanto research

(2) KippsDeSanto & Co. served as exclusive financial advisor

ND = not disclosed

About KippsDeSanto & Co.

KippsDeSanto is an investment banking firm focused on delivering M&A and financing expertise. Our solutions are focused on the sectors we know — aerospace/defense and government technology solutions. We are recognized for our depth of industry experience, knowledge of sector-specific transaction drivers, and long-standing relationships with industry participants.

We welcome the opportunity to have a more detailed discussion of developments in our focus industries.

For more information, please contact us at (703) 442-1400.

Robert D. Kipps

Managing Director
bkipps@kippsdesanto.com

Kevin P. DeSanto

Managing Director
kdesanto@kippsdesanto.com

Michael J. Misantone

Managing Director
mmisantone@kippsdesanto.com

Karl M. Schmidt

Managing Director
kschmidt@kippsdesanto.com

Marc B. Marlin

Managing Director
mmarlin@kippsdesanto.com

Warren Romine

Managing Director
wromine@kippsdesanto.com

Jon Yim

Director
jyim@kippsdesanto.com

Toby Albright

Director
talbright@kippsdesanto.com

Kate W. Troendle

Director
ktroendle@kippsdesanto.com

Brian T. Tunney

Vice President
btunney@kippsdesanto.com

Stephen M. Jonas

Vice President
sjonas@kippsdesanto.com

Kurt A. Kautman

Associate
kkautman@kippsdesanto.com

Alexia N. Marchetta

Associate
amarchetta@kippsdesanto.com

Salman J. Husain

Associate
shusain@kippsdesanto.com

James Reid

Associate
jreid@kippsdesanto.com

Nathan Wilson

Associate
nwilson@kippsdesanto.com

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