



INDUSTRY UPDATE

AEROSPACE & DEFENSE
Q1 2020



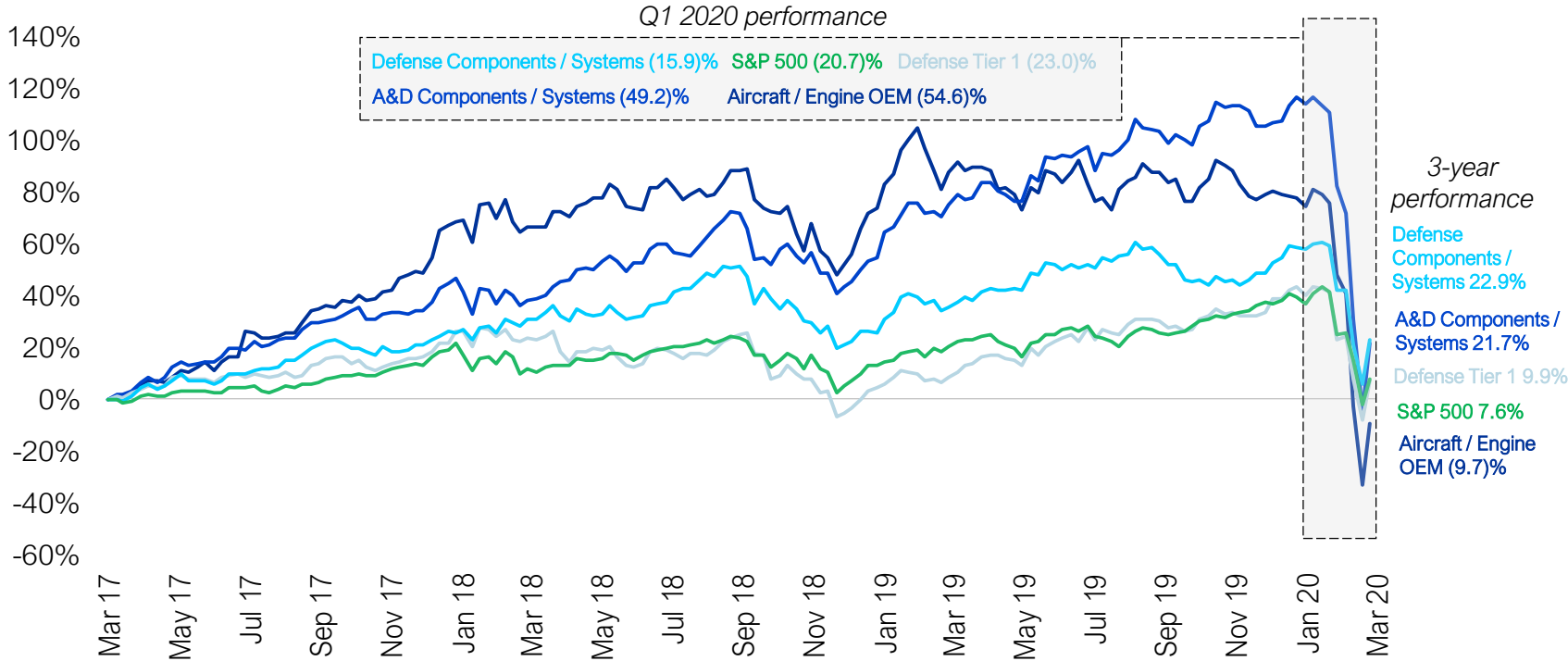
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Public Market Performance

Q1 2020 was hallmarked by the COVID-19 outbreak and significant volatility in the public markets. Across the indices tracked in this update, Defense Components / Systems experienced outperformance (negative 15.9%) compared to the S&P 500 (negative 20.7%) as defense funding and production maintained relative stability. The Defense Tier 1 index was slightly slower at negative 23.0%. The commercial aerospace sector was more severely impacted given the dramatic reduction in travel. Fleet utilization will affect the demand for aftermarket parts and services in the near-term and airlines will continue to assess new aircraft orders and deliveries as the situation continues to evolve. The Aircraft / Engine OEM and A&D Components / Systems indices declined 54.6% and 49.2%, respectively.

Aerospace & Defense Market Performance



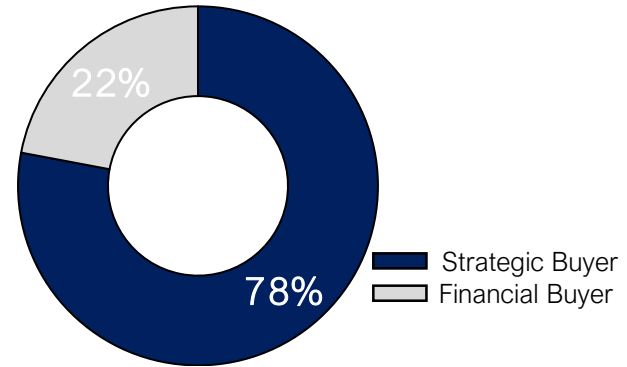
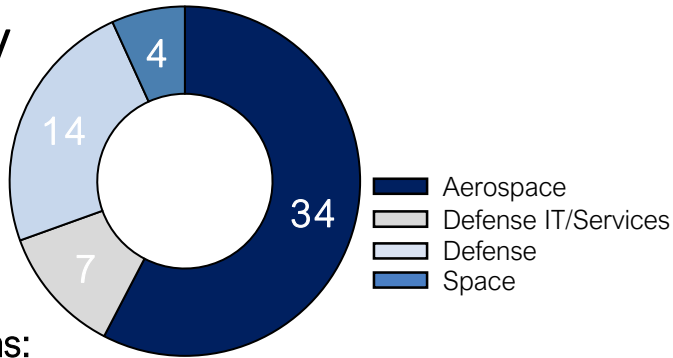
Source: S&P Capital IQ
 Note: All values based on publicly available data as of 3/31/2020



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M&A Activity

Q1 2020
Transaction Volume:
59



Select Transactions:

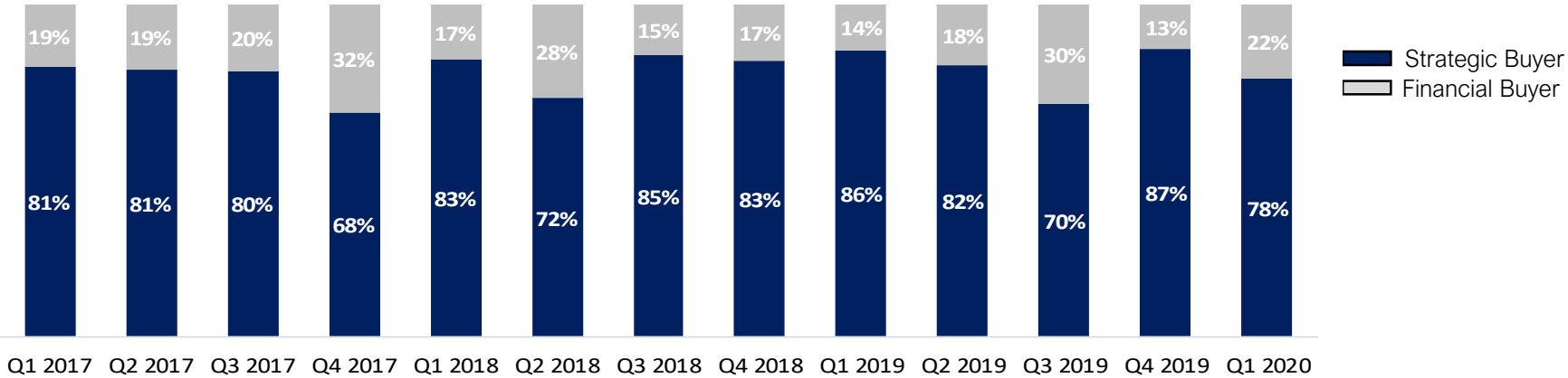
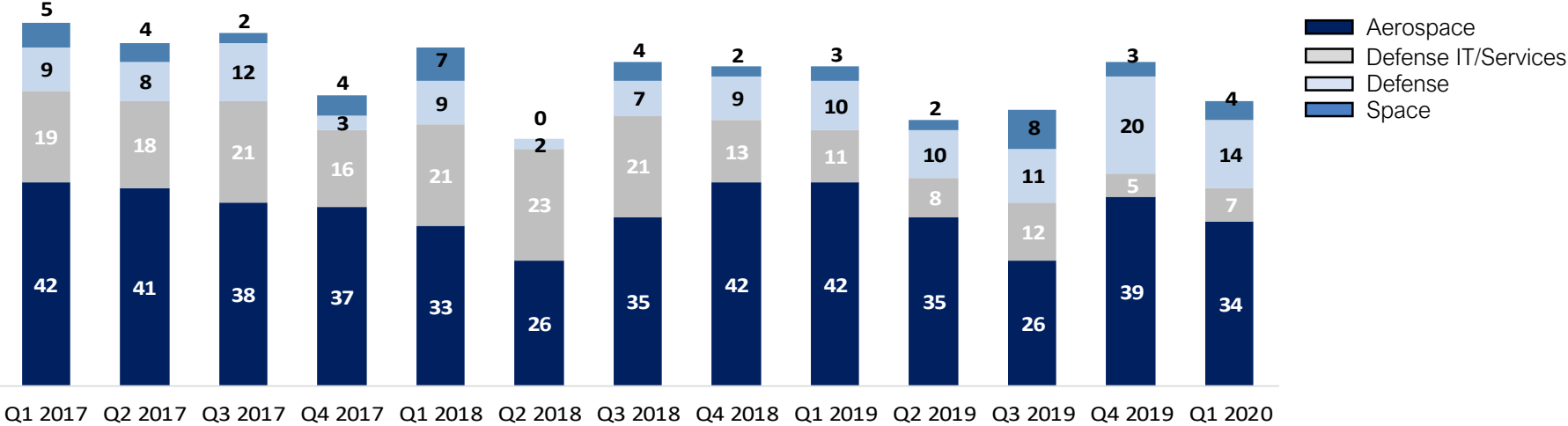
Announced	Target / Seller	Buyer	Transaction Value (\$mm)	Target Description
03/03/2020	G.S. Precision, Inc.	AE Industrial Partners, LP	-	G.S. Precision is a manufacturer of high precision components and specialty hardware used in a variety of new and aftermarket A&D applications
03/02/2020	Kellstrom Defense Aerospace, Inc.	Aero Precision Holdings LP (Odyssey Investment Partners)	-	Kellstrom is an aftermarket sustainment solutions provider serving a broad portfolio of military aircraft platforms
03/02/2020	Adcole Maryland Aerospace, LLC	AE Industrial Partners, LP	-	Adcole designs, manufactures, tests and integrates critical spacecraft components and small satellites
02/24/2020	FreeFlight Systems, Inc.	ACR Electronics, Inc.	-	FreeFlight is a leading designer and manufacturer of avionics systems that improve safety, efficiency and affordability for the aviation industry
02/10/2020	Inter-Coastal Electronics, Inc.	Arotech Corporation (Greenbriar Equity)	-	ICE designs, manufacturers and supports complex instrumentation ecosystems supporting strategic military training objectives
01/30/2020	RSA Engineered Products, LLC (Tinicum L.P.)	TriMas Corporation (NasdaqGS:TRS)	\$85	RSA designs and manufactures engineered components predominantly used in engine bleed air, anti-icing and environmental control applications
01/29/2020	Consolidated Aerospace Manufacturing, LLC	Stanley Black & Decker, Inc. (NYSE:SWK)	\$1,500	CAM designs and manufactures highly engineered hardware and fastener solutions for aerospace applications worldwide
01/29/2020	Custom MMIC Design Services, Inc.	Qorvo, Inc. (NasdaqGS:QRVO)	\$105	Custom MMIC is a leading supplier of high-performance GaAs and GaN monolithic microwave integrated circuits (MMICs)
01/28/2020	Arundel Machine Tool Co. Inc.	ARCH Global Precision LLC (The Jordan Company)	-	Arundel manufactures high-precision components and assemblies primarily for the A&D market, as well as the semiconductor and oil and gas industries
01/20/2020	Military GPS Business Of Collins Aerospace	BAE Systems plc (LSE:BA.)	\$1,925	BAE intends to buy Collins Aerospace's Military Global Positioning System and Raytheon's Airborne Tactical Radios Division. These two businesses are being sold in order to clear the antitrust regulatory requirements of the pending merger between Raytheon and UTC.
01/20/2020	Airborne Tactical Radios Business of Raytheon	BAE Systems plc (LSE:BA.)	\$275	BAE intends to buy Collins Aerospace's Military Global Positioning System and Raytheon's Airborne Tactical Radios Division. These two businesses are being sold in order to clear the antitrust regulatory requirements of the pending merger between Raytheon and UTC.
01/09/2020	Fiber Materials Inc. (Edgewater Capital)	Spirit AeroSystems Holdings, Inc. (NYSE:SPR)	\$120	Fiber Materials is a manufacture of 3D woven carbon-carbon high-temperature materials for hypersonic missiles
01/07/2020	Reading Alloys, Inc.	Kymera International (Palladium Equity)	\$250	Reading Alloys designs, develops and produces master alloys, thermal barrier coatings and titanium powders that are used in aerospace applications
01/07/2020	Icon Aerospace Technology Ltd	Integrated Polymer Solutions Group (Arcline Capital Management)	-	Icon designs and manufactures custom, highly-engineered polymer components for A&D end-markets

Source: Capital IQ and GCG research



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M&A Trends



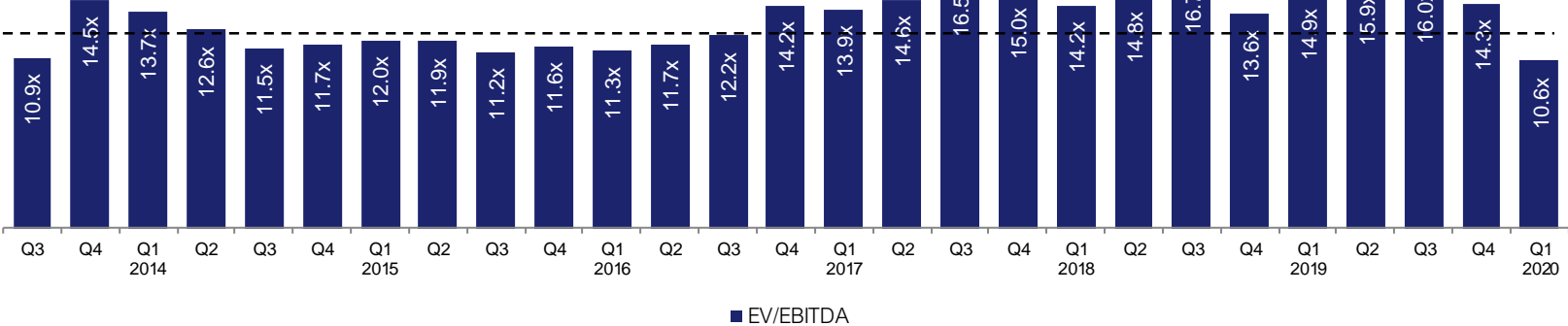
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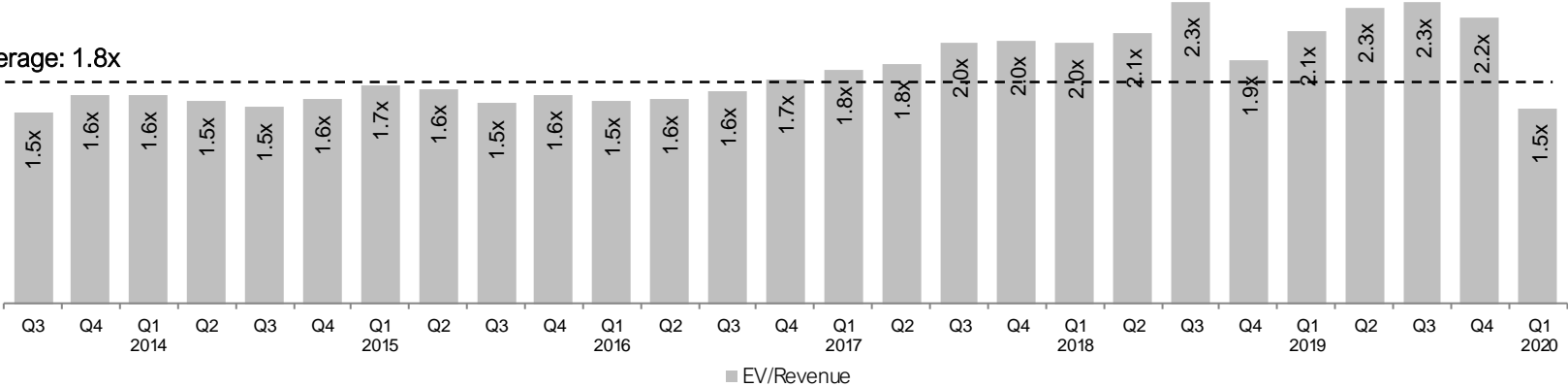
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Public Company Trading Multiples

Average: 13.3x



Average: 1.8x



Source: S&P Capital IQ
 Note: All values based on publicly available data as of 3/31/2020



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Public Comparable Companies

Company Name	Enterprise	Revenue	Price Change		LTM Margins		TEV / LTM:	
	Value (\$mils)	(\$mils)	3 month	12 month	Gross	EBITDA	Revenue	EBITDA
Aircraft/Engine OEM								
The Boeing Company	\$102,968	\$76,559	(54.2%)	(60.9%)	6.2%	0.2%	1.3x	NM
Airbus SE	\$48,433	\$79,091	(55.5%)	(50.7%)	14.9%	4.7%	0.6x	11.3x
Rolls-Royce Holdings plc	\$9,676	\$21,968	(53.1%)	(63.9%)	5.7%	(1.3%)	0.5x	26.3x
Bombardier Inc.	\$9,202	\$15,757	(78.4%)	(83.3%)	10.2%	2.7%	0.6x	15.3x
Textron Inc.	\$8,981	\$13,630	(40.2%)	(47.4%)	16.1%	11.6%	0.7x	5.5x
MTU Aero Engines AG	\$8,978	\$5,194	(48.7%)	(35.3%)	20.1%	16.1%	1.8x	9.5x
Dassault Aviation SA	\$1,999	\$8,278	(37.3%)	(44.2%)	31.6%	12.0%	0.2x	1.5x
Embraer S.A.	\$561	\$2,604	(62.5%)	(61.1%)	13.7%	0.8%	0.3x	22.5x
Mean	\$25,867	\$27,885	(53.7%)	(55.9%)	14.8%	5.9%	0.8x	13.1x
Median	\$9,092	\$14,694	(53.7%)	(55.8%)	14.3%	3.7%	0.6x	11.3x

Source: S&P Capital IQ

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Public Comparable Companies (Cont'd)

Company Name	Enterprise	Revenue	Price Change		LTM Margins		TEV / LTM:	
	Value (\$mils)	(\$mils)	3 month	12 month	Gross	EBITDA	Revenue	EBITDA
A&D Components/Systems								
Safran SA	\$42,769	\$28,351	(43.0%)	(35.8%)	46.7%	20.0%	1.5x	7.3x
TransDigm Group Incorporated	\$31,673	\$5,695	(42.8%)	(29.5%)	55.0%	43.7%	5.6x	12.7x
HEICO Corporation	\$9,979	\$2,096	(34.6%)	(34.6%)	39.6%	26.7%	4.8x	17.8x
Woodward, Inc.	\$4,688	\$2,968	(49.8%)	(37.4%)	24.7%	16.7%	1.6x	9.2x
Hexcel Corporation	\$4,162	\$2,287	(49.3%)	(46.2%)	26.9%	23.7%	1.8x	7.1x
Meggitt PLC	\$3,932	\$3,015	(58.5%)	(44.8%)	35.0%	21.7%	1.4x	6.2x
Spirit AeroSystems Holdings, Inc.	\$3,241	\$7,863	(67.2%)	(73.9%)	13.7%	13.4%	0.4x	3.0x
Triumph Group, Inc.	\$1,778	\$3,076	(73.2%)	(64.5%)	18.9%	9.6%	0.6x	5.6x
AAR Corp.	\$863	\$2,218	(60.6%)	(45.4%)	14.8%	6.5%	0.4x	5.2x
Senior plc	\$647	\$1,471	(61.8%)	(69.2%)	19.6%	10.5%	0.5x	4.1x
Ducommun Incorporated	\$579	\$721	(50.8%)	(42.9%)	21.1%	12.1%	0.8x	6.4x
Astronics Corporation	\$468	\$773	(67.2%)	(71.9%)	22.2%	10.8%	0.6x	5.2x
Héroux-Devtek Inc.	\$449	\$466	(49.8%)	(37.8%)	17.0%	14.2%	1.1x	6.9x
Latécoère S.A.	\$371	\$800	(46.8%)	(34.1%)	100.0%	6.5%	0.5x	7.3x
Magellan Aerospace Corporation	\$304	\$783	(57.6%)	(65.4%)	15.4%	13.9%	0.4x	3.1x
Mean	\$7,060	\$4,172	(54.2%)	(48.9%)	31.4%	16.7%	1.5x	7.1x
Median	\$1,778	\$2,218	(50.8%)	(44.8%)	22.2%	13.9%	0.8x	6.4x

Source: S&P Capital IQ

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Public Comparable Companies (Cont'd)

Company Name	Enterprise	Revenue	Price Change		LTM Margins		TEV / LTM:	
	Value (\$mils)	(\$mils)	3 month	12 month	Gross	EBITDA	Revenue	EBITDA
Defense Tier 1								
Raytheon Technologies Corporation	\$122,470	\$77,046	(37.0%)	(26.8%)	26.2%	18.2%	1.6x	8.3x
Lockheed Martin Corporation	\$107,776	\$61,127	(13.0%)	12.9%	13.5%	14.6%	1.8x	11.8x
Northrop Grumman Corporation	\$63,922	\$33,841	(12.0%)	12.2%	21.5%	11.8%	1.9x	14.6x
General Dynamics Corporation	\$51,196	\$39,350	(25.0%)	(21.8%)	17.9%	14.0%	1.3x	8.7x
BAE Systems plc	\$23,396	\$24,243	(13.2%)	3.4%	64.5%	10.8%	1.0x	7.6x
Huntington Ingalls Industries, Inc.	\$8,830	\$8,899	(27.4%)	(12.1%)	17.2%	11.0%	1.0x	8.2x
Leonardo S.p.a.	\$7,215	\$15,469	(43.1%)	(42.6%)	37.1%	11.4%	0.5x	3.6x
Saab AB (publ)	\$2,886	\$3,521	(42.8%)	(40.2%)	23.1%	10.1%	0.8x	7.2x
Mean	\$48,461	\$32,937	(26.7%)	(14.4%)	27.6%	12.7%	1.2x	8.7x
Median	\$37,296	\$29,042	(26.2%)	(17.0%)	22.3%	11.6%	1.2x	8.2x

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Public Comparable Companies (Cont'd)

Company Name	Enterprise	Revenue	Price Change		LTM Margins		TEV / LTM:	
	Value (\$mils)	(\$mils)	3 month	12 month	Gross	EBITDA	Revenue	EBITDA
Defense Components/Systems								
L3Harris Technologies, Inc.	\$46,264	\$18,526	(9.0%)	12.8%	28.9%	19.2%	2.5x	13.0x
Thales S.A.	\$21,802	\$20,650	(19.2%)	(29.9%)	24.6%	11.9%	1.1x	7.7x
Elbit Systems Ltd.	\$6,760	\$4,508	(16.2%)	0.8%	26.4%	10.4%	1.5x	12.6x
FLIR Systems, Inc.	\$4,720	\$1,887	(38.8%)	(33.0%)	49.6%	22.1%	2.5x	10.9x
Mercury Systems, Inc.	\$3,846	\$723	3.2%	11.3%	44.4%	18.6%	5.3x	27.6x
Aerojet Rocketdyne Holdings, Inc.	\$3,041	\$1,982	(8.4%)	17.7%	18.6%	14.5%	1.5x	10.1x
Ultra Electronics Holdings plc	\$1,961	\$1,093	(10.7%)	20.3%	29.0%	15.8%	1.9x	11.7x
Cubic Corporation	\$1,869	\$1,520	(35.0%)	(26.5%)	27.9%	8.7%	1.2x	14.0x
Kratos Defense & Security Solutions, Inc.	\$1,704	\$718	(23.2%)	(11.5%)	26.5%	9.0%	2.4x	22.7x
AeroVironment, Inc.	\$1,179	\$320	(1.3%)	(10.9%)	42.8%	13.9%	3.7x	27.0x
Chemring Group PLC	\$795	\$433	(21.6%)	38.1%	72.4%	18.0%	1.9x	10.6x
Espey Mfg. & Electronics Corp.	\$32	\$34	(16.0%)	(26.7%)	21.1%	9.7%	0.9x	9.6x
Mean	\$7,831	\$4,366	(16.3%)	(3.1%)	34.3%	14.3%	2.2x	14.8x
Median	\$1,878	\$1,307	(16.1%)	(5.0%)	28.4%	14.2%	1.9x	12.2x
Aerospace & Defense Mean	\$18,102	\$13,990	(38.4%)	(31.0%)	28.4%	13.3%	1.5x	10.6x
Aerospace & Defense Median	\$4,162	\$3,076	(42.8%)	(35.3%)	23.1%	12.0%	1.2x	8.9x

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Aerospace & Defense Expertise

GCG's Aerospace & Defense ("A&D") team has an extensive industry background formed by working with dozens of clients across nearly all aspects of the commercial aerospace, regional jet, business jet, helicopter, military aircraft, and defense supply chain continuum. With experience serving private and publicly traded A&D companies in the U.S. and abroad, GCG has a deep understanding of the trends and dynamics affecting this increasingly global industry.

More about Greenwich Capital Group

Greenwich Capital Group ("GCG") is a middle market focused advisory firm offering a range of investment banking and consulting services to private companies, public companies and private equity investors. For additional perspective or to discuss M&A related opportunities in the aerospace & defense sector, please reach out to GCG's A&D practice leader, Peter Frankfort. For more information, please visit www.greenwichgp.com.



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Data Sources: We have based our findings on data provided by industry recognized sources. Data and information for this publication was collated from the S&P Capital IQ database. For more information on this or anything else related to our research, please email info@greenwichgp.com.

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