

## Aerospace and Defense

### INDUSTRY SUMMARY

Cogent Valuation identified Aerospace and Defense publicly traded companies, IPOs, and recent M&A transactions within the Aerospace and Defense industry, which provides a basis for market and transaction pricing that can be used by your firm in estimating market sentiment and its impact on your firm's value. Over the last year since March 31, 2018, the median 52-week share price return of the Aerospace and Defense industry was 35.1%. Between March 31, 2018 and March 31, 2019, the median EV/EBITDA multiple decreased from 14.3 to 11.9. Furthermore, the median price-to-earnings multiple decreased from 28.1 to 23.8 over the same period. The median revenue growth and EBITDA margins for the industry for the quarter were 1.9% and 10.4%, respectively.

### Public Company Key Statistics

Median 52-Week  
Return

35.1%

Median Year to Date  
Return

-9.8%

Median EV/Revenue  
Multiple

1.5x

Median EV/EBITDA  
Multiple

11.9x

Median Price/Earnings  
Multiple

23.8x

Median EV/Gross CF  
Multiple

29.1x

## Comparable Public Company Market Price Returns as of March 31, 2019

	2019	3 Month	1 Year	2 Year	3 Year	2018	2017	2016
AAR Corp.	12.3%	12.3%	31.2%	4.4%	8.0%	-5.0%	18.9%	25.7%
Ability Inc.	-25.5%	-25.5%	-83.4%	N/A	N/A	-56.8%	-84.1%	-72.0%
Aerojet Rocketdyne Holdings, Inc.	-10.4%	-10.4%	28.9%	0.5%	2.9%	12.9%	73.8%	14.6%
DigitalGlobe, Inc.	-19.0%	-19.0%	62.4%	9.5%	6.2%	21.0%	109.3%	-9.0%
Ducommun Incorporated	-8.9%	-8.9%	-57.8%	10.9%	6.5%	-57.7%	-46.3%	-61.3%
Elbit Systems Ltd.	-21.4%	-21.4%	N/A	25.3%	26.0%	-55.3%	N/A	N/A
Embraer S.A.	-15.4%	-15.4%	-12.5%	-22.5%	-20.7%	-38.1%	47.0%	N/A
Engility Holdings, Inc.	-14.1%	-14.1%	3.4%	6.2%	-9.5%	-26.2%	1.4%	71.6%
Esterline Technologies Corporation	-10.1%	-10.1%	17.6%	-0.3%	-6.3%	-15.6%	22.5%	-4.4%
Northrop Grumman Corporation	-20.9%	-20.9%	-59.5%	27.2%	29.0%	42.4%	-55.3%	-2.0%
Orbital ATK, Inc.	48.3%	48.3%	72.5%	15.8%	-9.8%	65.1%	9.3%	40.2%
Raytheon Company	8.9%	8.9%	44.4%	29.9%	20.5%	14.0%	28%	-4.9%
Rockwell Collins, Inc.	8.2%	8.2%	20.5%	6.7%	10.4%	0.5%	9.3%	1.5%
SIFCO Industries, Inc.	-17.9%	-17.9%	48.0%	-33.2%	-40.3%	-19.5%	-67.4%	13.4%
Sparton Corporation	4.8%	4.8%	1.0%	-10.3%	-7.5%	19.3%	-29.5%	1.4%
Spirit AeroSystems Holdings, Inc.	0.0%	0.0%	34.7%	2.5%	19.8%	16.5%	16.3%	26.3%
TAT Technologies, Ltd.	4.1%	4.1%	39.9%	22.5%	11.6%	18.2%	10.8%	-16.1%
Teledyne Technologies Incorporated	0.9%	0.9%	28.9%	10.0%	9.5%	38.7%	-13.7%	11.8%
<b>Median of Industry Public Companies</b>	<b>2.5%</b>	<b>2.5%</b>	<b>26.1%</b>	<b>6.7%</b>	<b>6.5%</b>	<b>14.9%</b>	<b>-14.4%</b>	<b>3.8%</b>

■ Highest Return
 ■ Lowest Return
 ■ Median Return

Multiple year periods are calculated as the average annual return.

## Public Company Median Multiples by Quarter

	3/31/19	12/31/18	9/30/18	6/30/18	3/31/18	12/31/17	9/30/17	6/30/17
<b>EV/Revenues Multiple</b>	1.5x	1.6x	1.6x	1.5x	1.5x	1.6x	1.3x	1.4x
<b>EV/EBITDA Multiple</b>	11.9x	14.3x	13.7x	14.3x	13.8x	13.0x	12.1x	11.6x
<b>Price/Earnings Multiple</b>	23.8x	30.6x	30.2x	30.4x	28.1x	26.3x	24.6x	24.2x
<b>EV/Gross Cash Flows Multiple</b>	29.1x	31.0x	27.0x	28.4x	24.8x	24.6x	25.4x	24.0x

■ Highest Multiple    
 ■ Lowest Multiple    
 ■ Median Multiple

## Industry Initial Public Offerings – Aerospace and Defense (dollars in millions, except share prices)

Offer Date	Company Name	Offer Price	Shares Offered	Amount Raised	Total Assets	Debt	LTM Revenues	LTM EBITDA	LTM Net Income	LTM Cash Flows
1/17/19	Velocity Composites plc	\$1.10	16.5	\$18.7	\$10.6	\$2.9	\$17.8	\$0.0	(\$0.3)	\$0.4
12/26/18	UUV Aquabotix Limited	\$0.15	35.0	\$5.2	\$4.7	\$0.2	N/A	N/A	\$0.1	\$0.2
11/20/17	DroneShield Limited	\$0.15	35.0	\$5.2	\$4.7	N/A	N/A	N/A	N/A	N/A
6/7/16	GomSpace Group AB (publ)	\$1.54	8.0	\$12.3	\$4.0	\$1.2	\$4.9	\$0.6	\$0.2	\$0.8
11/18/15	Hizeaero Co., Ltd.	\$15.42	4.4	\$67.5	N/A	\$30.9	N/A	N/A	\$2.5	\$7.1
9/30/15	LIG Nex1 Co., Ltd.	\$64.19	6.9	\$442.9	\$1,569	\$136.2	\$1,427.5	\$126.3	\$58.8	\$153.2
2/23/15	Martin Aircraft Company Limited	\$0.30	67.5	\$20.3	\$1.1	\$0.0	\$0.0	(\$3.2)	(\$3.2)	(\$3.1)
12/22/14	AeroSpace Technology of Korea Inc.	\$8.66	2.9	\$24.7	N/A	N/A	N/A	N/A	N/A	N/A
11/16/14	Remote Monitored Systems plc	\$0.13	8.1	\$1.0	N/A	N/A	N/A	N/A	N/A	N/A
7/9/14	Starburst Holdings Limited	\$0.25	50.0	\$12.5	\$35.8	\$6.0	\$16.7	\$8.4	\$6.9	\$8.7
6/24/14	FACC AG	\$12.91	20.4	\$263.3	\$819.3	\$292.3	\$769.3	\$114.4	\$39.9	\$129.6
12/22/13	Figeac Aero Société Anonyme	\$12.59	1.9	\$24.0	\$291.5	\$113.1	\$180.3	\$39.3	\$15.3	\$50.5
6/27/13	Delta Drone SA	\$6.37	0.6	\$3.8	\$6.7	\$1.8	\$2.7	(\$0.8)	(\$0.6)	(\$0.7)
4/10/12	Erickson Incorporated	\$8.00	3.8	\$38.4	\$245.5	\$131.9	\$160.0	\$25.0	\$15.9	\$32.3
11/28/11	AVTECH Sweden AB (publ)	\$0.86	2.5	\$2.2	N/A	\$1.1	\$0.0	\$0.1	\$0.0	\$0.2
<b>Median of all IPOs</b>		<b>nm</b>	<b>nm</b>	<b>\$18.7</b>	<b>\$10.6</b>	<b>\$4.4</b>	<b>\$21.8</b>	<b>\$3.2</b>	<b>\$1.3</b>	<b>\$3.9</b>

## Recent Merger and Acquisition Transactions for a Majority Stake (dollars in millions)

Transaction Date	Target	Acquirer	Transaction Size	% Bought	LTM Revenues	LTM EBITDA	EV/ Revenues	EV/ EBITDA
1/19/19	<b>Aerospace Kaiyuan Technology Co.</b>	L3 Technologies, Inc.	\$22.2	100%	\$21.3	\$34.3	1.2x	12.5x
11/26/18	<b>Beijing Aerospace Huayu Technology</b>	Héroux-Devtek Inc.	\$62.2	100%	\$7.4	N/A	N/A	N/A
11/3/18	<b>Rockwell Collins, Inc. (nka:Collins Aerospace)</b>	Northrop Grumman Corp.	\$30,943.2	100%	\$6,074.0	N/A	2.2x	N/A
7/2/18	<b>Applied Defense Solutions, Inc.</b>	TransDigm Group	\$50.0	100%	N/A	N/A	N/A	N/A
7/2/18	<b>Beaver Aerospace &amp; Defense, Inc.</b>	Safran SA	\$23.5	100%	\$30.0	N/A	N/A	N/A
6/6/18	<b>Orbital ATK, Inc.</b>	NTC Group, Inc.	\$9,429.0	100%	\$4,515.0	N/A	N/A	N/A
4/24/18	<b>Extant Components Group</b>	Zhejiang Science and Technology Investment Co., Ltd.	\$525.0	100%	N/A	\$606.3	2.8x	13.3x
3/2/18	<b>Zodiac Aerospace</b>	Littelfuse, Inc.	\$9,763.8	100%	\$5,773.4	N/A	N/A	N/A
1/9/18	<b>Tenax Aerospace, LLC</b>	Advanced Energy Industries, Inc.	\$220.0	100%	N/A	\$22.4	1.3x	15.6x
12/31/17	<b>Acro Aircraft Seating Ltd.</b>	Sonaca SA	\$73.7	100%	\$40.2	N/A	N/A	N/A
7/10/17	<b>U.S. Sensor, Corp.</b>	Liberty Hall Capital	\$24.0	86%	N/A	N/A	N/A	N/A
7/5/17	<b>Excelsys Technologies Ltd.</b>	Rockwell Collins, Inc.	\$365.7	100%	\$11.6	N/A	N/A	N/A
6/27/17	<b>LMI Aerospace, Inc.</b>	Florida Pneumatic Mfg.	\$27.5	100%	\$346.2	N/A	5.3x	N/A
6/15/17	<b>Teletronics Technology Corp.</b>	The KEYW Corporation	\$233.0	100%	\$21.3	N/A	N/A	N/A
12/22/16	<b>Pacific Safety Products Inc.</b>	Astronics Custom Control	\$11.9	100%	\$7.4	\$0.4	0.8x	26.5x
12/21/16	<b>LATECOERE Services SAS</b>	Groupe ADF SAS	\$67.4	100%	\$113.5	N/A	0.6x	N/A
12/9/16	<b>IPI Solutions Ltd.</b>	Ideagen PLC	\$8.9	100%	\$2.1	\$0.4	3.3x	16.5x
12/1/16	<b>Camber Corporation</b>	Huntington Ingalls	\$380.0	100%	\$364.0	N/A	1.0x	N/A
11/16/16	<b>The Radiant Group, Inc.</b>	DigitalGlobe, Inc.	\$140.0	100%	N/A	N/A	N/A	N/A

■ USA
 ■ International

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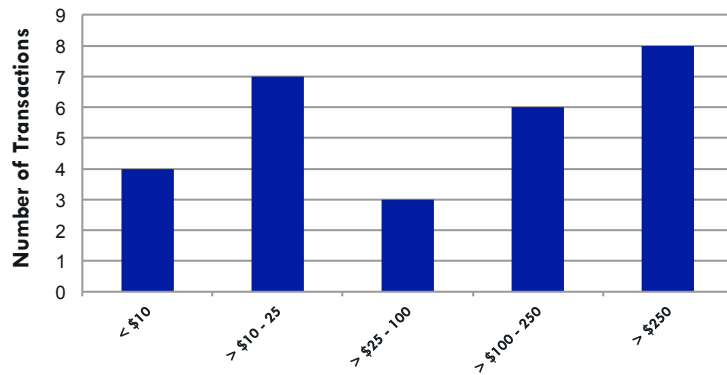
## Recent Merger and Acquisition Transactions for a Majority Stake (dollars in millions)

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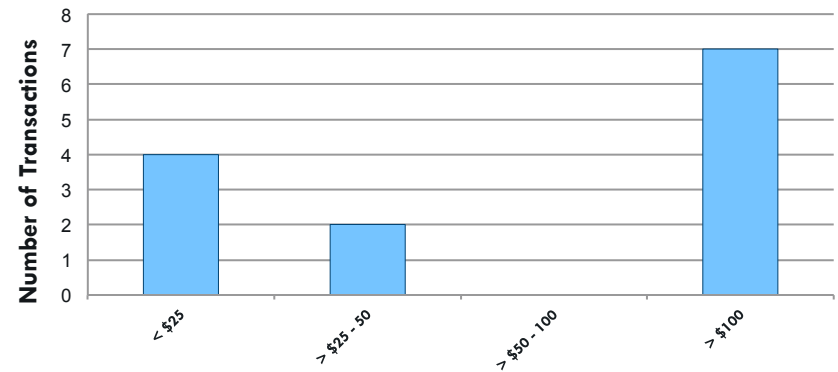
Transaction Date	Target	Acquirer	Transaction Size	% Bought	LTM Revenues	LTM EBITDA	EV/ Revenues	EV/ EBITDA
10/17/16	<b>NanoSpace AB</b>	<b>GS Sweden AB</b>	\$11.9	100%	\$364.0	N/A	1.0x	N/A
9/16/16	<b>Honeywell Technology</b>	<b>KBR Holdings, LLC</b>	\$67.4	100%	N/A	N/A	N/A	N/A
1/9/17	<b>American Science</b>	<b>OSI Systems, Inc.</b>	\$8.9	100%	N/A	N/A	N/A	N/A
1/4/17	<b>Crimson Trace Corporation</b>	<b>Smith &amp; Wesson</b>	\$380.0	100%	N/A	N/A	N/A	N/A
12/22/16	<b>Explomo Technical Services</b>	<b>N/A</b>	\$140.0	100%	\$103.0	(\$0.4)	1.8x	N/A
12/21/16	<b>Kreisler Manufacturing</b>	<b>United Flexible, Inc.</b>	\$140.0	100%	\$44.0	N/A	2.2x	N/A
12/9/16	<b>Sarl Techno-Meca</b>	<b>Tecnoquark Trust, S.A.</b>	\$2.2	100%	N/A	N/A	N/A	N/A
12/1/16	<b>Kent Periscopes Ltd.</b>	<b>Gooch &amp; Housego plc</b>	\$34.5	100%	\$34.4	\$3.7	0.8x	7.6x
<b>Median of the 28 M&amp;A Transaction Targets</b>			<b>\$2.8</b>	<b>100%</b>	<b>\$3.3</b>	<b>\$0.7</b>	<b>0.8x</b>	<b>4.2x</b>

## Recent Merger and Acquisition Transactions for a Majority Stake (dollars in millions) as of March 31, 2019

**Size of M&A Transactions**



**LTM Revenues Reported from M&A Transactions**



**Definitions of Financial Terms Used in this Quarterly Industry Update:**

**Enterprise Value (EV):** Market Value of Equity + Market Value of Debt —Cash

**Earnings Before Interest, Taxes, Depreciation and Amortization (EBITDA):** Profitability metric sometimes also referred to as operating profit or operating earnings.

**Gross Cash Flows:** Net Income + Depreciation and Amortization Expense Latest Twelve Months (LTM): Financial information is as of the latest twelve months through the date of this Quarterly Industry Update.

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