

# Q3: Quarterly Industry Update

AS OF September 30, 2018



## Aerospace and Defense

### INDUSTRY SUMMARY

COGENT VALUATION 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 September 30, 2017, the median 52-week share price return of the Aerospace and Defense industry was 47.6%. Between September 30, 2016 and September 30, 2018, the median EV/EBITDA multiple increased from 11.7 to 14.3. Furthermore, the median price-to-earnings multiple increased from 22.9 to 31.0 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

7.5%

Median Year to Date  
Return

7.7%

Median EV/Revenue  
Multiple

1.5x

Median EV/EBITDA  
Multiple

14.3x

Median Price/Earnings  
Multiple

31x

Median EV/Gross CF  
Multiple

31x

## Comparable Public Company Market Price Returns as of September 30, 2018

	YTD	3 Month	1 Year	2 Year	3 Year	2016	2015	2014
AAR Corp.	21.9%	12.3%	31.2%	4.4%	8.0%	25.7%	-5.4%	-0.8%
Ability Inc.	-20.5%	-25.5%	-83.4%	N/A	N/A	-72.0%	N/A	N/A
Aerojet Rocketdyne Holdings, Inc.	8.9%	-10.4%	28.9%	0.5%	2.9%	14.6%	-14.4%	1.6%
DigitalGlobe, Inc.	99.7%	-19.0%	62.4%	9.5%	6.2%	83.0%	-49.4%	-6.5%
Ducommun Incorporated	-17.8%	-8.9%	-57.8%	10.9%	6.5%	57.6%	-35.8%	17.1%
Elbit Systems Ltd.	-34.5%	-21.4%	N/A	25.3%	26.0%	15.2%	44.0%	N/A
Embraer S.A.	-19.2%	-15.4%	-12.5%	-22.5%	-20.7%	-35.5%	-17.1%	N/A
Engility Holdings, Inc.	-4.2%	-14.1%	3.4%	6.2%	-9.5%	3.8%	-24.1%	-33.5%
Esterline Technologies Corporation	4.9%	-10.1%	17.6%	-0.3%	-6.3%	10.1%	-26.1%	30.1%
Northrop Grumman Corporation	-17.3%	-20.9%	-59.5%	27.2%	29.0%	23.2%	28.1%	-14.1%
Orbital ATK, Inc.	43.6%	48.3%	72.5%	15.8%	-9.8%	-1.8%	-23.1%	66.8%
Raytheon Company	-4.9%	8.9%	44.4%	29.9%	20.5%	14.0%	15.1%	-32.1%
Rockwell Collins, Inc.	-17.9%	8.2%	20.5%	6.7%	10.4%	0.5%	9.3%	0.0%
SIFCO Industries, Inc.	26.9%	-17.9%	48.0%	-33.2%	-40.3%	-19.5%	-67.4%	13.4%
Sparton Corporation	21.8%	4.8%	1.0%	-10.3%	-7.5%	19.3%	-29.5%	1.4%
Spirit AeroSystems Holdings, Inc.	0.6%	0.0%	34.7%	2.5%	19.8%	16.5%	16.3%	26.3%
TAT Technologies, Ltd.	53.4%	4.1%	39.9%	22.5%	11.6%	18.2%	10.8%	-16.1%
Teledyne Technologies Incorporated	3.8%	0.9%	28.9%	10.0%	9.5%	38.7%	-13.7%	11.8%
<b>Median of Industry Public Companies</b>	<b>8.4%</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

## Public Company Median Multiples by Quarter

	9/30/18	6/30/18	9/30/17	12/31/16	9/30/16	6/30/16	9/30/16	12/31/16
<b>EV/Revenues Multiple</b>	1.5x	1.6x	1.5x	1.4x	1.3x	1.3x	1.1x	1.3x
<b>EV/EBITDA Multiple</b>	14.3x	13.6x	14.3x	12.1x	11.7x	10.9x	10.4x	10.6x
<b>Price/Earnings Multiple</b>	31.0x	30.2x	29.8x	23.9x	22.7x	23.2x	20.8x	20.7x
<b>EV/Gross Cash Flows Multiple</b>	31.0x	27.0x	28.1x	19.0x	19.9x	25.6x	20.1x	16.8x

■ 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
5/17/17	Velocity Composites plc	\$1.10	16.5	\$18.7	\$10.6	\$2.9	\$21.8	\$0.0	(\$0.3)	\$0.4
4/26/17	Aquabotix Technology Corporation	\$0.15	35.0	\$5.2	\$4.7	\$0.2	\$0.8	\$0.2	\$0.1	\$0.2
6/20/16	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	\$5.8	\$2.5	\$7.1
9/30/15	LIG Nex1 Co., Ltd.	\$64.19	6.9	\$442.9	\$1,569	\$136.2	\$1,475.5	\$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	Strat Aero 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	\$29.9	\$8.4	\$6.9	\$8.7
6/24/14	FACC AG	\$12.91	20.4	\$263.3	\$819.3	\$292.3	\$771.4	\$114.4	\$39.9	\$129.6
12/22/13	Figeac Aero Société Anonyme	\$12.59	1.9	\$24.0	\$291.5	\$113.1	\$205.1	\$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>

Multiple year periods are calculated as the average annual return.

■ Highest Return    
 ■ Lowest Return    
 ■ Median Return

## 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
7/2/18	Applied Defense Solutions, Inc.	L3 Technologies, Inc.	\$50.0	100%	\$346.2	\$34.3	1.2x	12.5x
7/2/18	Beaver Aerospace & Defense, Inc.	Héroux-Devtek Inc.	\$23.5	100%	N/A	N/A	N/A	N/A
6/6/18	Orbital ATK, Inc.	Northrop Grumman Corp.	\$9,429.0	100%	\$186.6	N/A	2.2x	N/A
4/24/18	Extant Components Group	TransDigm Group	\$525.0	100%	N/A	N/A	N/A	N/A
3/2/18	Zodiac Aerospace	Safran SA	\$9,763.8	100%	N/A	N/A	N/A	N/A
1/9/18	Tenax Aerospace, LLC	NTC Group, Inc.	\$220.0	100%	N/A	N/A	N/A	N/A
12/31/17	Acro Aircraft Seating Ltd.	Zhejiang Science and Technology Investment Co., Ltd.	\$73.7	100%	\$2,861.7	\$606.3	2.8x	13.3x
7/10/17	U.S. Sensor, Corp.	Littelfuse, Inc.	\$24.0	100%	N/A	N/A	N/A	N/A
7/5/17	Excelsys Technologies Ltd.	Advanced Energy Industries, Inc.	\$17.6	100%	\$263.5	\$22.4	1.3x	15.6x
5/2/17	LMI Aerospace, Inc.	Sonaca SA	\$432.3	100%	N/A	N/A	N/A	N/A
4/28/17	Dunlop Aircraft Tyres Ltd.	Liberty Hall Capital	\$135.0	86%	N/A	N/A	N/A	N/A
4/13/17	Gardner Group Limited	Rockwell Collins, Inc.	\$365.7	100%	N/A	N/A	N/A	N/A
1/9/17	Jiffy Air Tool, Inc.	Florida Pneumatic Mfg.	\$27.5	100%	\$5.2	N/A	5.3x	N/A
1/4/17	Teletronics Technology Corp.	The KEYW Corporation	\$233.0	100%	N/A	N/A	N/A	N/A
12/22/16	Pacific Safety Products Inc.	Astronics Custom Control	\$11.9	100%	\$15.0	\$0.4	0.8x	26.5x
12/21/16	LATECOERE Services SAS	Groupe ADF SAS	\$67.4	100%	\$113.5	N/A	0.6x	N/A
12/9/16	IPI Solutions Ltd.	Ideagen PLC	\$8.9	100%	\$2.1	\$0.4	3.3x	16.5x
12/1/16	Camber Corporation	Huntington Ingalls	\$380.0	100%	\$364.0	N/A	1.0x	N/A
11/16/16	The Radiant Group, Inc.	DigitalGlobe, Inc.	\$140.0	100%	N/A	N/A	N/A	N/A

■ USA   
 ■ International   
 ■ Highest   
 ■ Lowest   
 ■ Median

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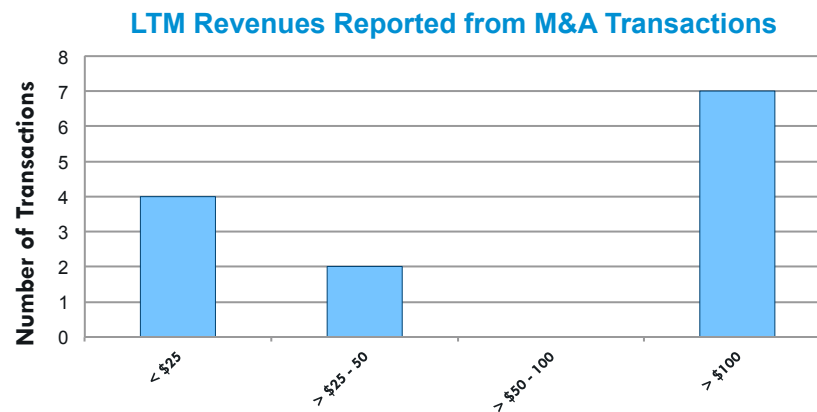
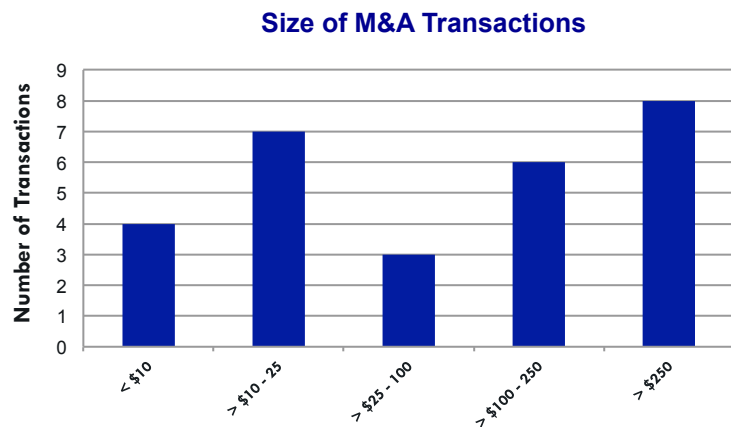
## Recent Merger and Acquisition Transactions for a Majority Stake (dollars in millions)

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

USA
  International
  Highest
  Lowest
  Median

## Recent Merger and Acquisition Transactions for a Majority Stake (dollars in millions) as of September 30, 2018



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**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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