

# Quarterly Industry Update

As of September 30, 2016

Industry: 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 September 30, 2015, the median 52-week share price return of the Aerospace and Defense industry was 27.7%. Between September 30, 2014 and September 30, 2016, the median EV/EBITDA multiple increased from 11.0 to 11.8. Furthermore, the median price-to-earnings multiple increased from 21.8 to 22.5 over the same period.

## Comparable Public Company Key Statistics

Median 52-Week Return	12.5%	Median EV/Revenue Multiple	1.3x	Median Price/Earnings Multiple	22.5x
Median Year-to-Date Return	8.9%	Median EV/EBITDA Multiple	11.8x	Median EV/Gross CF Multiple	18.3x

## Comparable Public Company Market Price Returns (As of September 30, 2016)

	YTD	3 Month	1 Year	2 Year	3 Year	5 Year	2015	2014	2013	2012	2011
AAR Corp.	19.1%	34.2%	65.1%	13.9%	4.6%	13.4%	-5.4%	-0.8%	49.9%	-2.6%	-30.2%
Ability Inc.	-61.2%	-2.0%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Aerojet Rocketdyne Holdings, Inc.	12.3%	-3.8%	8.7%	4.9%	3.1%	31.4%	-14.4%	1.6%	96.9%	72.0%	2.9%
AeroVironment, Inc.	-17.2%	-12.2%	21.8%	-9.9%	1.9%	-2.8%	8.1%	-6.5%	34.0%	-30.9%	17.3%
Air Industries Group	-44.5%	-4.8%	-48.9%	-34.7%	-16.8%	8.9%	-22.5%	17.1%	23.5%	146.4%	0.0%
Arconic Inc.	2.7%	9.4%	5.0%	-20.6%	7.7%	1.2%	-37.5%	48.5%	22.5%	0.3%	-43.8%
Arotech Corporation	44.6%	5.0%	121.8%	-4.7%	19.0%	14.5%	-12.1%	-33.5%	238.8%	-14.2%	-28.1%
Astronics Corporation	10.7%	35.4%	28.1%	4.2%	14.5%	21.4%	-15.4%	30.1%	167.5%	-36.1%	70.5%
Astrotech Corporation	7.8%	-2.4%	-20.3%	-23.5%	29.2%	22.0%	-37.0%	-14.1%	214.4%	60.4%	-50.4%
B/E Aerospace, Inc.	21.9%	11.9%	17.7%	-21.6%	-11.2%	9.3%	-27.0%	-33.3%	76.2%	27.6%	4.5%
CPI Aerostructures Inc.	-29.5%	11.5%	-22.1%	-16.5%	-16.0%	-6.3%	-4.7%	-32.1%	50.2%	-15.7%	-15.7%
Cubic Corporation	-0.9%	16.6%	11.6%	0.0%	-4.5%	3.7%	-10.2%	0.0%	9.8%	10.0%	-7.6%
Curtiss-Wright Corporation	33.0%	8.1%	46.0%	17.6%	24.7%	25.9%	-3.0%	13.4%	89.6%	-7.1%	6.4%
DigitalGlobe, Inc.	75.6%	28.6%	44.6%	-1.8%	-4.5%	7.2%	-49.4%	-24.7%	68.4%	42.8%	-46.0%
Ducommun Incorporated	40.8%	15.5%	13.8%	-8.7%	-7.3%	8.8%	-35.8%	-15.2%	84.4%	26.8%	-41.5%
Elbit Systems Ltd.	8.4%	5.5%	29.0%	24.0%	21.0%	19.0%	44.0%	1.0%	51.3%	-2.6%	-23.3%
Embraer S.A.	-43.3%	-21.0%	-32.8%	-33.8%	-18.6%	-7.4%	-17.1%	15.0%	13.4%	11.8%	-11.2%
Engility Holdings, Inc.	-3.0%	49.1%	22.2%	0.5%	-0.2%	N/A	-24.1%	28.1%	73.4%	N/A	N/A
Esterline Technologies Corporation	-6.1%	22.6%	5.8%	-17.3%	-1.6%	8.0%	-26.1%	7.6%	60.3%	13.7%	-18.4%
General Dynamics Corporation	13.0%	11.4%	12.5%	10.5%	21.0%	22.2%	-0.2%	44.0%	37.9%	4.3%	-6.4%
HEICO Corporation	27.3%	3.6%	41.6%	21.7%	8.5%	17.0%	-10.0%	4.2%	61.8%	-4.3%	43.2%
Hexcel Corporation	-4.6%	6.4%	-1.2%	5.6%	4.5%	14.9%	12.0%	-7.2%	65.8%	11.4%	33.8%
Huntington Ingalls Industries, Inc.	20.9%	-8.7%	43.2%	21.3%	31.5%	44.5%	12.8%	24.9%	107.7%	38.6%	N/A
Innovative Solutions and Support, Inc.	15.6%	13.1%	17.7%	-21.8%	-26.3%	-8.0%	-13.2%	-56.4%	111.9%	0.0%	-39.3%
KLX Inc.	14.3%	13.5%	-1.5%	N/A	N/A	N/A	-25.4%	N/A	N/A	N/A	N/A
Kratos Defense & Security Solutions, Inc.	68.0%	68.0%	63.3%	2.5%	-5.9%	0.5%	-18.3%	-34.6%	52.7%	-15.7%	-54.7%
L-3 Communications Holdings, Inc.	26.1%	2.8%	44.2%	12.6%	16.8%	19.5%	-5.3%	18.1%	39.5%	14.9%	-5.4%
LMI Aerospace, Inc.	-29.2%	-11.3%	-30.6%	-25.4%	-18.9%	-16.0%	-28.6%	-4.3%	-23.8%	10.2%	9.8%
Lockheed Martin Corporation	10.4%	-3.4%	15.6%	14.5%	23.4%	27.0%	12.8%	29.5%	61.1%	14.1%	15.7%
Mercury Systems, Inc.	33.8%	-1.2%	54.4%	49.4%	35.0%	16.4%	31.9%	27.1%	19.0%	-30.8%	-27.7%
Micronet Enertec Technologies, Inc.	-20.5%	-25.4%	-36.3%	-30.4%	-32.3%	-5.5%	-41.0%	-30.2%	-22.7%	197.3%	1010.0%
Moog Inc.	-1.7%	10.4%	10.1%	-6.7%	0.5%	12.8%	-18.1%	9.0%	65.6%	-6.6%	10.4%
Northrop Grumman Corporation	13.3%	-3.7%	28.9%	27.4%	31.0%	32.6%	28.1%	28.6%	69.6%	15.6%	-9.7%
Orbital ATK, Inc.	-14.7%	-10.5%	6.1%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
RADA Electronic Industries Ltd.	54.9%	-6.0%	-25.2%	-57.0%	-27.4%	-22.6%	-85.8%	72.4%	38.1%	-45.4%	-22.1%
Raytheon Company	9.3%	0.1%	24.6%	15.7%	20.9%	27.2%	15.1%	19.3%	57.6%	19.0%	4.4%
Rockwell Collins Inc.	-8.6%	-0.9%	3.1%	3.7%	7.5%	9.8%	9.3%	14.3%	27.1%	5.1%	-5.0%
SIFCO Industries, Inc.	4.3%	-0.9%	-12.2%	-42.6%	-18.6%	-11.6%	-67.4%	3.8%	78.2%	-20.9%	22.1%
Spartan Corporation	31.4%	20.6%	22.7%	3.2%	1.0%	33.1%	-29.5%	1.4%	101.5%	59.4%	5.5%
Spirit AeroSystems Holdings, Inc.	-11.0%	3.6%	-7.9%	8.2%	22.5%	22.8%	16.3%	26.3%	100.8%	-18.3%	-0.1%

(Multiple year periods are calculated as the average annual return.)

This industry research is provided at no charge to Cogent Valuation's clients. Research or detailed information not covered in this report can be obtained for a fee. Contact [Steven Kam](mailto:Steven.Kam@CogentValuation.com) at 415-392-0888 for additional information or questions in connection with this research report. Copyright © 2016 Cogent Valuation. All Rights Reserved.

# Quarterly Industry Update

As of September 30, 2016

Industry: Aerospace and Defense



## Comparable Public Company Market Price Returns (As of September 30, 2016, continued)

	YTD	3 Month	1 Year	2 Year	3 Year	5 Year	2015	2014	2013	2012	2011
TASER International Inc.	65.5%	15.0%	29.9%	36.1%	24.3%	46.0%	-34.7%	66.8%	77.6%	74.6%	8.9%
TAT Technologies, Ltd.	5.3%	6.9%	8.3%	3.6%	-1.0%	9.5%	10.8%	-16.1%	42.7%	38.8%	-25.3%
Tel-Instrument Electronics Corp.	-19.6%	-10.6%	-16.1%	-14.5%	-0.8%	-13.4%	-9.2%	-3.8%	52.1%	-40.0%	-24.8%
Teledyne Technologies Inc.	21.7%	9.0%	19.5%	7.1%	8.3%	17.2%	-13.7%	11.8%	41.2%	18.6%	24.7%
Textron Inc.	-5.4%	8.7%	5.6%	5.1%	12.9%	17.6%	-0.2%	14.6%	48.3%	34.1%	-21.8%
The Boeing Company	-8.9%	1.4%	0.6%	1.7%	3.9%	16.8%	11.2%	-4.8%	81.1%	2.7%	12.4%
The KEYW Holding Corporation	83.4%	11.1%	79.5%	-0.1%	-6.4%	9.2%	-42.0%	-22.8%	5.9%	71.5%	-49.6%
TransDigm Group Incorporated	26.6%	9.6%	36.1%	25.2%	27.7%	28.8%	16.3%	21.9%	18.1%	42.5%	32.9%
Triumph Group, Inc.	-29.9%	-21.5%	-33.7%	-34.5%	-26.5%	-10.6%	-40.9%	-11.6%	16.5%	11.7%	30.7%
United Technologies Corporation	5.8%	-0.9%	14.2%	-1.9%	-2.0%	7.6%	-16.5%	1.1%	38.8%	12.2%	-7.2%
Vectrus, Inc.	-27.1%	-46.5%	-30.9%	-11.7%	N/A	N/A	-23.8%	N/A	N/A	N/A	N/A
Wesco Aircraft Holdings, Inc.	12.2%	0.1%	10.1%	-12.1%	-13.7%	4.2%	-14.4%	-36.2%	65.9%	-5.6%	N/A
<b>Median of Industry Public Companies</b>	<b>8.9%</b>	<b>4.3%</b>	<b>12.5%</b>	<b>0.5%</b>	<b>2.5%</b>	<b>12.8%</b>	<b>-14.0%</b>	<b>2.7%</b>	<b>55.1%</b>	<b>11.4%</b>	<b>-5.4%</b>

(Multiple year periods are calculated as the average annual return.)

## Median Public Company Multiples of the Industry: Aerospace and Defense

Date:	9/30/2014	12/31/2014	3/31/2015	6/30/2015	9/30/2015	12/31/2015	3/31/2016	6/30/2016	9/30/2016
EV/Revenues Multiple	1.4x	1.3x	1.3x	1.4x	1.2x	1.3x	1.1x	1.3x	1.3x
EV/EBITDA Multiple	11.0x	10.5x	10.6x	10.3x	9.9x	10.4x	10.4x	10.9x	11.8x
Price/Earnings Multiple	21.8x	22.4x	23.2x	21.8x	19.2x	20.6x	20.8x	23.7x	22.5x
EV/Gross Cash Flows Multiple	22.7x	18.9x	19.7x	19.5x	17.0x	16.0x	19.7x	20.6x	18.3x

## Industry Initial Public Offerings - Industry: 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
6/20/2016	DroneShield Limited	\$0.15	35.0	\$5.2	N/A	N/A	FALSE	\$0.0	(\$0.1)	\$0.0
6/7/2016	GS Sweden AB	\$1.54	8.0	\$12.3	\$4.0	\$1.2	\$4.9	\$0.6	\$0.2	\$0.8
11/18/2015	Hizeaero Co., Ltd.	\$15.42	4.4	\$67.5	\$40.9	\$24.4	\$28.6	\$4.0	\$1.8	\$4.8
9/30/2015	LIG Nex1 Co., Ltd.	\$64.19	6.9	\$442.9	\$1,564.3	\$136.2	\$1,427.5	\$126.3	\$58.8	\$153.2
2/23/2015	Martin Aircraft Company Limited	\$0.30	67.5	\$20.3	\$1.1	\$0.0	\$0.0	(\$3.2)	(\$3.2)	(\$3.1)
12/22/2014	Aerospace Technology Of Korea, Inc.	\$8.66	2.9	\$24.7	N/A	N/A	N/A	N/A	N/A	N/A
11/16/2014	Strat Aero Plc	\$0.13	8.1	\$1.0	N/A	N/A	N/A	N/A	N/A	N/A
7/9/2014	Starburst Holdings Limited	\$0.25	50.0	\$12.5	\$31.9	\$6.0	\$16.7	\$8.4	\$6.9	\$8.7
6/24/2014	FACC AG	\$12.91	20.4	\$263.3	\$786.1	\$292.3	\$769.3	\$114.4	\$39.9	\$129.6
12/22/2013	Figeac-Aero Société Anonyme	\$12.59	1.9	\$24.0	\$253.4	\$113.1	\$180.3	\$39.3	\$15.3	\$50.5
6/27/2013	Delta Drone S.A.	\$6.37	0.6	\$3.8	\$6.7	\$1.8	\$2.7	(\$0.8)	(\$0.6)	(\$0.7)
4/10/2012	Erickson Incorporated	\$8.00	3.8	\$38.4	\$233.9	\$131.9	\$152.8	\$25.0	\$15.9	\$32.3
11/28/2011	AVTECH Sweden AB (publ)	\$0.86	2.5	\$2.2	\$2.7	\$1.1	\$1.4	\$0.1	\$0.0	\$0.2
7/27/2011	Wesco Aircraft Holdings, Inc.	\$15.00	21.0	\$315.0	\$1,300.3	\$613.8	\$694.7	\$179.1	\$85.1	\$184.3
6/28/2011	Korea Aerospace Industries Ltd.	\$14.31	36.6	\$523.7	\$1,336.8	\$393.7	\$1,130.1	\$0.0	\$70.3	\$0.0
<b>Median of All IPOs</b>		<b>nm</b>	<b>nm</b>	<b>\$24.0</b>	<b>\$137.4</b>	<b>\$68.7</b>	<b>\$90.7</b>	<b>\$4.0</b>	<b>\$6.9</b>	<b>\$4.8</b>

### 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.

# Quarterly Industry Update

As of September 30, 2016

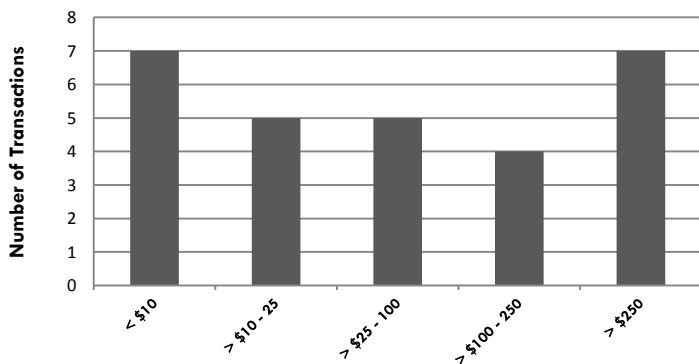
Industry: Aerospace and Defense



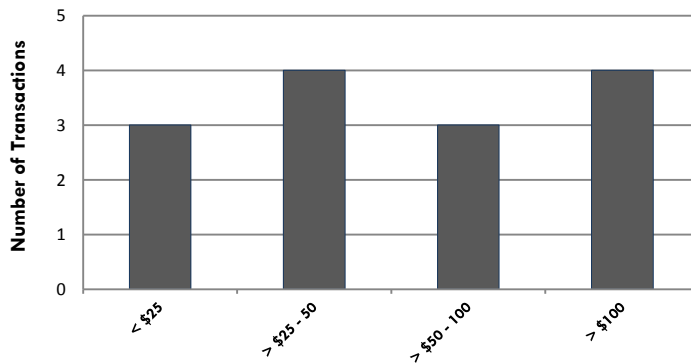
## Recent Merger and Acquisition Transactions for a Majority Stake (dollars in millions)

Transaction Date	Target	Acquirer	Transaction Size	% Bought	LTM Revenues	LTM EBITDA	EV/Revenues	EV/EBITDA	Target Country
11/16/2016	The Radiant Group	DigitalGlobe, Inc.	\$140.0	100%	N/A	N/A	N/A	N/A	United States
10/17/2016	NanoSpace AB	GS Sweden AB	\$2.9	100%	N/A	N/A	N/A	N/A	Sweden
9/16/2016	Honeywell Technology	KBR Holdings, LLC	\$300.0	100%	N/A	N/A	N/A	N/A	United States
9/9/2016	American Science	OSI Systems, Inc.	\$264.1	100%	\$103.0	(\$0.4)	1.8x	N/A	United States
8/26/2016	Crimson Trace Corporation	Smith & Wesson	\$95.0	100%	\$44.0	N/A	2.2x	N/A	United States
8/1/2016	Explomo Technical Services	N/A	\$2.2	100%	N/A	N/A	N/A	N/A	Singapore
7/22/2016	Kreisler Manufacturing	United Flexible, Inc.	\$34.5	100%	\$34.4	\$3.7	0.8x	7.6x	United States
7/14/2016	Sarl Techno-Meca	Tecnoquark Trust, S.A.	\$2.8	100%	\$3.3	\$0.7	0.8x	4.2x	France
7/11/2016	Kent Periscopes Ltd.	Goach & Housego plc	\$12.3	100%	N/A	N/A	N/A	N/A	United Kingdom
7/6/2016	Alfalight, Inc.	Goach & Housego plc	\$1.3	100%	N/A	N/A	N/A	N/A	United States
7/1/2016	Wyle Inc.	KBR Holdings, LLC	\$600.0	100%	N/A	N/A	N/A	N/A	United States
6/30/2016	Fly by Wire Systems	LORD Corporation	\$44.2	100%	\$41.9	N/A	1.1x	N/A	France
6/28/2016	Armasight Inc.	FLIR Systems, Inc.	\$41.0	100%	N/A	N/A	N/A	N/A	United States
6/27/2016	EID - Empresa	Cohort PLC	\$11.9	57%	\$16.0	N/A	1.3x	N/A	Portugal
6/23/2016	ILC Industries, LLC	TransDigm Inc.	\$1,000.0	100%	N/A	N/A	N/A	N/A	United States
5/31/2016	Doosan DST Co., Ltd	Hanwha Techwin Co., Ltd.	\$608.7	100%	\$607.1	N/A	1.0x	N/A	South Korea
5/27/2016	Sigma Precision Comp.	Silverfleet Capital Partners	\$94.1	100%	\$51.1	N/A	1.8x	N/A	United Kingdom
5/17/2016	Herndon A&D	KLX Inc.	\$221.5	100%	\$132.5	\$20.3	1.7x	10.9x	United States
5/4/2016	Wallop Defence Systems	Chemring Group plc	\$17.3	100%	N/A	N/A	N/A	N/A	United Kingdom
5/3/2016	COJOT Oy	Alaris Holdings Limited	\$4.1	100%	N/A	N/A	N/A	N/A	Finland
5/2/2016	Microsemi Corp.	Mercury Systems, Inc.	\$300.0	100%	\$99.5	N/A	3.0x	N/A	United States
4/22/2016	API Technologies Corp.	J.F. Lehman & Company	\$311.2	100%	\$235.9	\$20.2	1.3x	15.2x	United States
4/8/2016	Blue Falcon I Inc.	Albany International Corp.	\$210.0	100%	\$77.0	N/A	2.7x	N/A	United States
4/5/2016	Phoenix Heliparts, Inc.	TKC Aerospace, Inc.	\$3.0	100%	N/A	N/A	N/A	N/A	United States
3/25/2016	Miltec Corporation	General Atomics Corp.	\$14.6	100%	\$28.2	N/A	0.5x	N/A	United States
3/21/2016	Airco Industries, Inc.	FTG Aerospace	\$2.7	100%	\$6.2	N/A	0.4x	N/A	United States
3/15/2016	The KEYW Corporation	Quantech Services, Inc.	\$12.0	100%	N/A	N/A	N/A	N/A	United States
2/3/2016	AIM Aerospace, Inc.	Northwestern Mutual	\$220.0	100%	N/A	N/A	N/A	N/A	United States
<b>Median of the 28 M&amp;A Transaction Targets</b>			<b>\$42.6</b>	<b>100%</b>	<b>\$47.6</b>	<b>\$3.7</b>	<b>1.3x</b>	<b>9.3x</b>	

Size of M&A Transactions



LTM Revenues Reported from M&A Transactions



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