

11 May 2018

Share Price:	\$0.39
Valuation:	\$0.72

Brief Business Description:

OEC provides integrated propulsion systems and flight critical components for tactical UAVs.

Hartleys Brief Investment Conclusion

OEC's key operating division (aerospace) is on the cusp of entering an accelerated growth phase.

Chairman & CEO:

John Welborn Chairman
Todd Alder MD/CEO

Company Address:

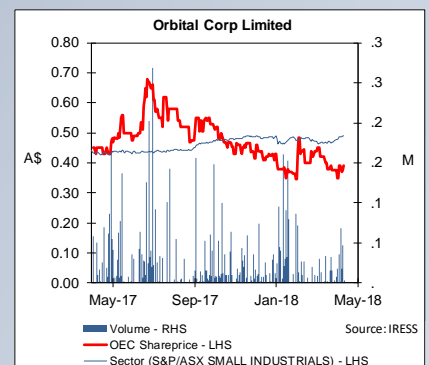
4 Whipple Street
Balcatta, Western Australia, 6021

Issued Cap.:	77.3m
- fully diluted	77.8m
M'ket Cap:	\$30.1m
- fully diluted	\$30.3m
Net Cash (FY18e):	\$10.3m

	FY16a	FY17a	FY18e
Op Cash Flw	-5.1	-4.9	1.8
Free Cash Flw	18.0	-6.8	0.4
NPAT (A\$m)	-4.3	-4.4	1.0
EPS (\$, bas)	0.02	-0.16	0.01
P/E (basic)	24.1x	-2.4x	30.6x
P/E (norm)	-6.8x	-6.8x	30.6x
EV / EBITDA	-5.2x	-3.8x	8.2x
DPS (\$)	-	-	-

N.D. / equity -124% -106% -104%

Source: Hartleys Research



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ORBITAL CORPORATION LTD (OEC)

Introducing the ScanEagle3

Orbital Corporation Ltd. ('Orbital', 'OEC' or the 'Company') have announced that their N20 Engine will be featured in the new Insitu ScanEagle3 UAS. In Insitu's recently released promotional material it seemed clear that the engine of choice was the N20, this has now been confirmed by OEC. In Insitu's product description they outline that 'the aircraft features a new purpose-built propulsion system that accommodates more payload weight without compromising endurance.'

The ScanEagle3.

The ScanEagle3 was designed by Insitu as a commercial product, opening up a new large growth market (ex-military). The ScanEagle3's innovative design doubles the aircraft's payload capacity. Being a commercial variant, the UAS is not covered by U.S. International Traffic in Arms Regulations (ITAR), allowing accelerated global acquisition by customers. It has a payload weight of 9.1kg, endurance up to 18 hours, ceiling of 20,000ft and max speed of 80 knots.

Very Strong Outlook for the UAV Sector.

The Commercial market is likely to witness the fastest rate of growth over the next decade according to Teal Group's latest outlook for the UAV industry ('World Military Unmanned Aerial Systems: Market Profile and Forecast'). They expect the World UAV Annual Production Value to increase from circa US\$7bn in FY17 to circa US\$22bn in FY26. Commercial is the fastest growing segment and combined with Consumer is expected to be roughly of equal size to the Military market by 2026. This Commercial sector growth complements continued strong demand from the Defence sector. Overall from FY18 through FY27 military spending is expected to total US\$28.1 billion on RTD&E and \$83.7 billion on procurement.

A\$0.72 per share target Price. Speculative Buy.

This announcement by Insitu is excellent news for OEC and confirms the quality of their engine offering. Their relationship with Insitu continues to be underpinned by a \$120m Long Term Supply Agreement. The key task for OEC now is to continue delivering N20 engines to Insitu in commercial quantities on time and to specification. With a strong order book in the second half of the current financial year, OEC has importantly maintained full year revenue guidance of A\$22m and as a result expects to deliver a modest FY18 profit. As highlighted by the Teal Group report and Insitu's launch of the ScanEagle3, the industry outlook for Orbital remains extremely positive. Delivery of the A\$22m in revenue will confirm them as an integrated propulsion system manufacturer and supplier to the industry (rather than just supplying an engine component). Our valuation and 12-month target price of **\$0.72 per share** is based on the potentially conservative assumptions of OEC trading at parity with the 12-month forward multiples of the S&P/ASX Small industrials index and a DCF assuming US\$650m of executed revenue (new sales and servicing). We continue to rate OEC a Speculative Buy, near term performance is however highly dependent on executing engine delivery on schedule in 2H18 and hence achieving OEC's circa \$22m revenue guidance.

SUMMARY MODEL

Orbital Corporation Limited (OEC)							Speculative Buy						
Company Information							Profit & Loss (\$m)						
Date	11 May 2018	4 Whipple Street					6/14A	6/15A	6/16A	6/17A	6/18F	6/19F	
Share Price	\$0.39	Balcatta, Western Australia, 6021					Revenue	6.77	9.55	11.63	14.25	21.64	36.67
52 Week High-Low	\$0.95 - \$0.43	Telephone: 61 (08) 9441 2311					Growth	0%	41%	22%	23%	52%	69%
Market Cap (\$m)	\$30.3						UAV	2.75	3.56	3.14	11.45	19.14	34.68
Enterprise Val (\$m)	\$20.5						Growth	0%	29%	-12%	265%	67%	81%
Ordinary Shares	77.3						Safety & Productivity	0.00	2.28	5.81	0.69	0.52	0.00
Fully Diluted Shares	77.8						Growth	0%	0%	155%	-88%	-25%	0%
Current Cash	17.1						Consumer	1.12	0.78	0.79	0.80	0.80	0.80
Current Debt	7.2						Growth	0%	-31%	1%	2%	0%	0%
							Engineering Services	2.90	2.94	1.89	1.32	1.19	1.19
							Growth	0%	1%	-36%	-30%	-10%	0%
							Other	0.00	0.00	0.00	0.00	0.00	0.00
							Growth	0%	0%	0%	0%	0%	0%
Valuation - S&P/ASX Small Industrials							Normalised EBITDA						
1yr ahead 12mth forward EV/EBITDA	Target Multiple	Weight	Value				Margin	-1.09	-1.14	-3.96	-5.34	2.49	7.33
1yr ahead 12mth forward P/E (diluted)	10.6x	25%	\$0.79					-16%	-12%	-34%	-37%	12%	20%
1yr ahead 12mth forward EV/EBIT	15.8x	25%	\$0.54				D&A						
DCF	12.5x	25%	\$0.82					-0.91	-0.97	-0.92	-0.58	-0.58	-0.65
DCF	12%	25%	\$0.71				EBIT	-2.00	-2.11	-4.88	-5.91	1.91	6.69
12 Months Price Target							Finance Expenses	-0.38	-0.86	-1.30	-0.43	-0.50	-0.48
Upside/Downside							PBT	-2.37	-2.97	-6.18	-6.34	1.41	6.21
							Tax	0.71	0.89	1.85	1.90	-0.42	-1.86
Fully diluted P / E (6/18F) at price target							Tax Rate	30%	30%	30%	30%	30%	30%
Fully diluted P / E (6/19F) at price target							Normalised Net Profit	-1.66	-2.08	-4.33	-4.44	0.99	4.35
EV/EBITDA (6/19F) at price target							Abnormals	3.34	-2.65	5.54	-7.81	0.00	0.00
EV/EBIT (6/19F) at price target							Reported Profit	1.68	-4.73	1.22	-12.25	0.99	4.35
							Reported EPS (basic, w/ghted)	0.02	-0.09	0.02	-0.16	0.01	0.06
							Normalised EPS (dil, wghtd)	-0.02	-0.03	-0.07	-0.06	0.01	0.06
							Normalised EPS (full, diluted)	-0.02	-0.04	-0.06	-0.06	0.01	0.06
							EPS (full dil) Growth %		76%	52%	0%	-122%	339%
							DPS (cps)	0.00	0.00	0.00	0.00	0.00	0.00
							Franking	100%	100%	100%	100%	100%	200%
							Payout Ratio	0%	0%	0%	0%	0%	0%
Multiples (\$/price at \$0.39)							Cash Flow (\$m)						
P / E (basic, weighted)	6/14A	6/15A	6/16A	6/17A	6/18F	6/19F	Operating	-1.9	-3.4	-5.1	-4.9	1.8	5.0
P / E (diluted, weighted, norm NPAT)	18.0x	-4.5x	24.1x	-2.4x	30.6x	7.0x	Investing	0.9	-3.2	23.1	-1.9	-1.4	-4.0
P / E (full dil mkt cap / norm. NPAT)	-18.1x	-10.3x	-6.8x	-6.8x	30.6x	7.0x	Financing	-0.4	8.6	-0.6	-0.7	0.0	0.0
Dividend Yield	-18.3x	-14.6x	-7.0x	-6.8x	30.6x	7.0x	Net inc. /dec. in cash	-1.5	2.1	17.4	-7.5	0.4	1.0
Group Free Cash Flow (f.c.f.) / EV	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	Balance Sheet (\$m)						
Equity f.c.f. / Mkt Cap	-5.2%	-32.0%	87.9%	-33.1%	2.0%	4.9%	Cash	5.42	6.65	24.87	17.13	17.55	18.54
Norm f.c.f. / Mkt cap	-3.5%	-21.5%	59.2%	-22.3%	1.4%	3.3%	WC Assets	5.76	6.99	10.26	9.75	10.00	11.00
Mkt cap / operating cash flow	13.0%	15.2%	82.8%	-17.4%	6.3%	8.2%	Other	4.67	2.67	1.43	2.63	2.63	2.63
EV/EBITDA multiple	-15.8x	-9.0x	-6.0x	-6.3x	16.7x	6.1x	Current Assets	15.84	16.31	36.56	29.51	30.18	32.17
EV/EBIT multiple	-18.8x	-17.9x	-5.2x	-3.8x	8.2x	2.8x	Investment in Associates	13.98	17.83	0.00	0.00	0.00	0.00
Price / Book Value	-10.2x	-9.7x	-4.2x	-3.5x	10.7x	3.1x	PP&E	2.85	2.26	5.48	5.51	6.33	9.68
	1.4x	1.4x	1.0x	1.6x	1.5x	1.2x	Other	5.00	11.15	7.14	1.50	1.50	1.50
Ratios							Non-Current Assets	21.83	31.24	12.63	7.00	7.83	11.18
Return on Average Equity	6/14A	6/15A	6/16A	6/17A	6/18F	6/19F	Total Assets	37.67	47.54	49.19	36.51	38.01	43.35
Return on Assets	-7.9%	-9.7%	-16.3%	-17.6%	5.0%	19.4%	Payables	3.70	4.51	6.45	6.50	7.00	8.00
Return on Assets	-4.4%	-4.4%	-8.8%	-12.2%	2.6%	10.0%	Other	3.83	3.47	3.15	3.12	3.12	3.12
ND / ND + Equity	0.0%	-180.5%	0.0%	0.0%	0.0%	0.0%	Current Liabilities	7.53	7.98	9.61	9.62	10.12	11.12
Net Interest Cover (EBIT)	10.2%	31.2%	-124.0%	-106.4%	-104.4%	-85.5%	LT Debt	7.81	7.74	7.56	7.24	7.24	7.24
ROIC	5.3x	2.5x	3.8x	13.9x	-3.9x	-14.0x	Convertible Debt	0.00	8.87	0.00	0.00	0.00	0.00
							Other	1.28	1.02	0.75	0.47	0.47	0.47
							Non-Current Liabilities	9.10	17.62	8.31	7.71	7.71	7.71
Free Cash Flow Analysis							Total Liabilities	16.62	25.60	17.92	17.33	17.83	18.83
Net Operating Cash Flow	6/14A	6/15A	6/16A	6/17A	6/18F	6/19F	Net Assets	21.05	21.94	31.27	19.18	20.17	24.52
Capex (Reported)	-1.9	-3.4	-5.1	-4.9	1.8	5.0	Net Asset Value / Share (\$)	0.27	0.28	0.40	0.25	0.26	0.32
Group Free Cash Flow (rept'd)	0.9	-3.2	23.1	-1.9	-1.4	-4.0	NTA / Share (\$)	0.21	0.14	0.31	0.23	0.24	0.30
Fixed Debt Repayments	-1.1	-6.5	18.0	-6.8	0.4	1.0	Net Debt (net cash)	2.40	9.96	-17.3	-9.9	-10.3	-11.3
Equity Free Cash Flow (rept'd)	-1.1	-6.5	18.0	-6.8	0.4	1.0							
HP Lease Capex (non-cash)	5.0	11.2	7.1	1.5	1.5	1.5							
Free Cash Flow (normalised)	3.9	4.6	25.1	-5.3	1.9	2.5							
Capex (inc HP) / depreciation													
Major Shareholders													
Name	Shares (m)		% Outstanding										
Utilico Investment Ltd	77.3		23.228										
CBA	77.3		7.729										
Directors & Senior Management													
Name	Position	Shares	Rights										
John Welborn	Chairman	77.3	0										
Terry Stinson	Non-Executive Director	1,672,621	500,000										
Todd Alder	MD/CEO	184,333	0										
Steve Gallagher	Non-Executive Director	100,000											
Kyle Abbott	Non-Executive Director	0											
Analyst: Aiden Bradley							Last Updated						
Phone: +61 8 9268 2876							11 May 2018						
Sources: IRESS, Company Information, Hartleys Research													

HIGHLIGHTS

OEC have announced that their N20 Engine will be featured in the new Insitu ScanEagle3 UAS. In Insitu's recently released promotional material (https://www.youtube.com/watch?time_continue=20&v=Nq_3KBkJEvA) it seemed clear (see Figure 1) that the engine of choice was the N20, this has now been confirmed by OEC. In Insitu's product description they outline that 'the aircraft features a new purpose-built propulsion system that accommodates more payload weight without compromising endurance.' The ScanEagle3's innovative design doubles the aircraft's payload capacity.

Fig. 1: ScanEagle3 Engine



Source: Insitu

The ScanEagle3 was designed as a commercial product, opening up a new large growth market (ex-military) for the ScanEagle.

Fig. 2: Insitu's UAV platforms

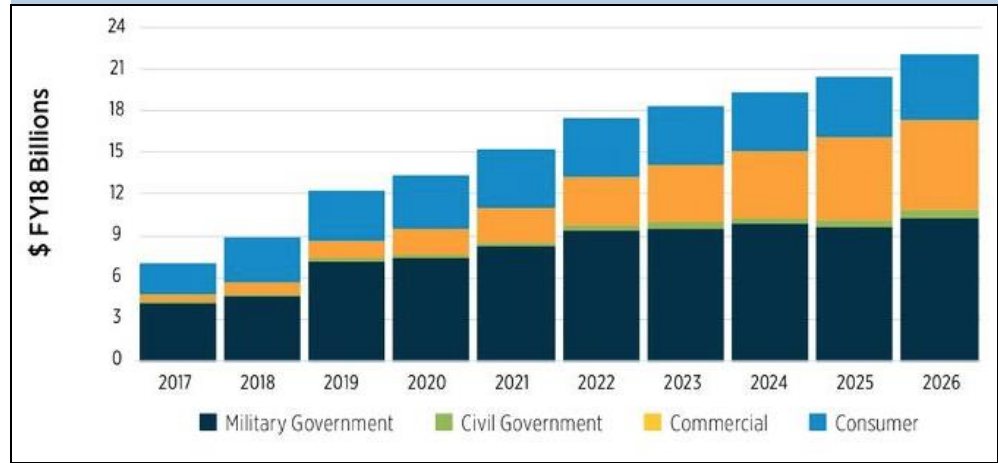


Source: OEC

Being a commercial variant, the UAS is not covered by U.S. International Traffic in Arms Regulations (ITAR), allowing accelerated global acquisition by customers.

The Commercial market is likely to experience the fastest rate of growth over the next decade according to Teal Group’s (highly regarded UAV market analysis firm) latest outlook for the UAV industry (‘World Military Unmanned Aerial Systems: Market Profile and Forecast’).

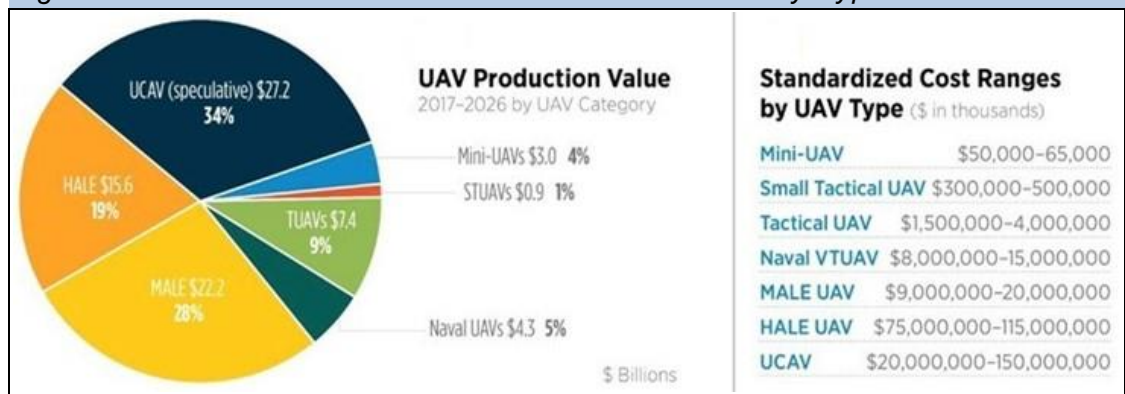
Fig. 3: World UAV Annual Production Value Forecast



Source: Teal Group

The TUAV segment is expected to represent about 9% of the market out to 2026.

Fig. 4: World UAV Annual Production Value Forecast by Type



Source: Teal Group

The US is set to continue to dominate production.

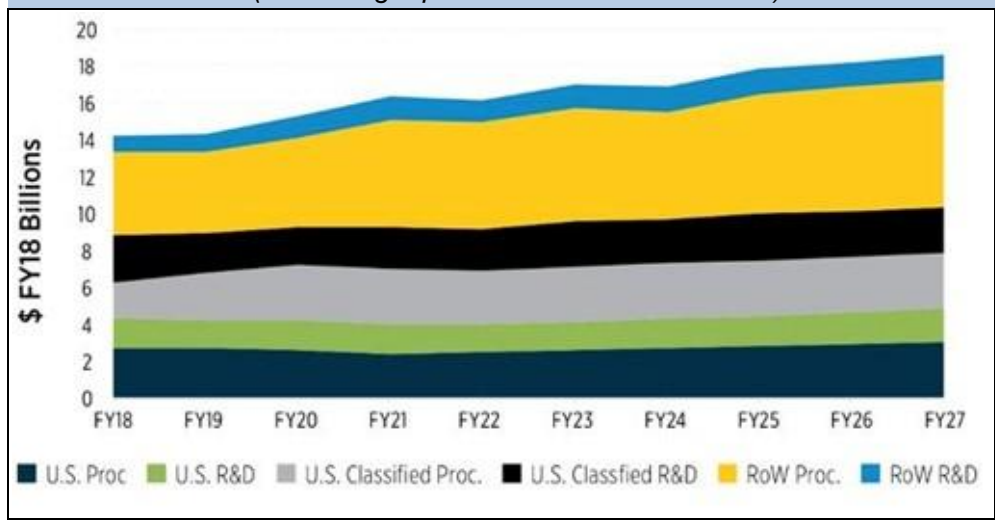
Fig. 5: World UAV Production by Region

Country/Region	2017		2026	
	\$ Millions	# of Units	\$ Millions	# of Units
USA	1,755	1,179	4,400	2,530
Asia-Pacific	1,092	724	2,523	1,134
Europe	714	666	1,524	972
Mid-East	609	509	1,534	273
Africa	20	12	114	113
Americas	1	27	213	32

Source: Teal Group

This commercial growth complements continued strong demand from the defence sector. Annual global spending for defence drones is expected to rise by 36 percent over the coming decade. This growth is underpinned by an increase from US\$9.6 billion in unclassified procurement and RDT&E (research, development, test and evaluation) in fiscal year 2018 (FY18) to about US\$13 billion in FY27. Overall from FY18 through FY27 military spending is expected to total US\$28.1 billion on RTD&E and \$83.7 billion on procurement. Despite the military UAV sector becoming increasingly international the United States will continue to dominate. According to the Teal report the US will account for 57% of the unclassified research and development (R&D) spending on UAV technology over the next decade and about 32% of the procurement. Add in Teal’s estimates of classified U.S. spending and that US proportion jumps to 76% of R&D and 49% of overall procurement.

Fig. 6: World Military UAS Budget Forecast – R&D and Procurement (including Speculative US Classified)



Source: Teal Group. RoW=Rest of World.

Fig. 7: Global Military UAS Budget Forecast, FY18-27



Source: Teal Group. RoW=Rest of World.

Outlook for remainder of 2018

This announcement by Insitu is excellent news for OEC and confirms the quality of their engine offering. Their relationship with Insitu continues to be underpinned by a \$120m Long Term Supply Agreement. The key task for OEC now is to continue delivering N20 engines to Insitu in commercial quantities on time and to specification. With a strong order book in the second half of the current financial year, OEC has importantly maintained full year revenue guidance of A\$22m and as a result expects to deliver a modest full year 2017/18 profit.

As highlighted by the Teal Group report and Insitu's launch of the ScanEagle3, the industry outlook for OEC remains extremely positive. Delivery of the A\$22m in revenue will confirm them as an integrated propulsion system manufacturer and supplier to the industry (rather than just supplying an engine component).

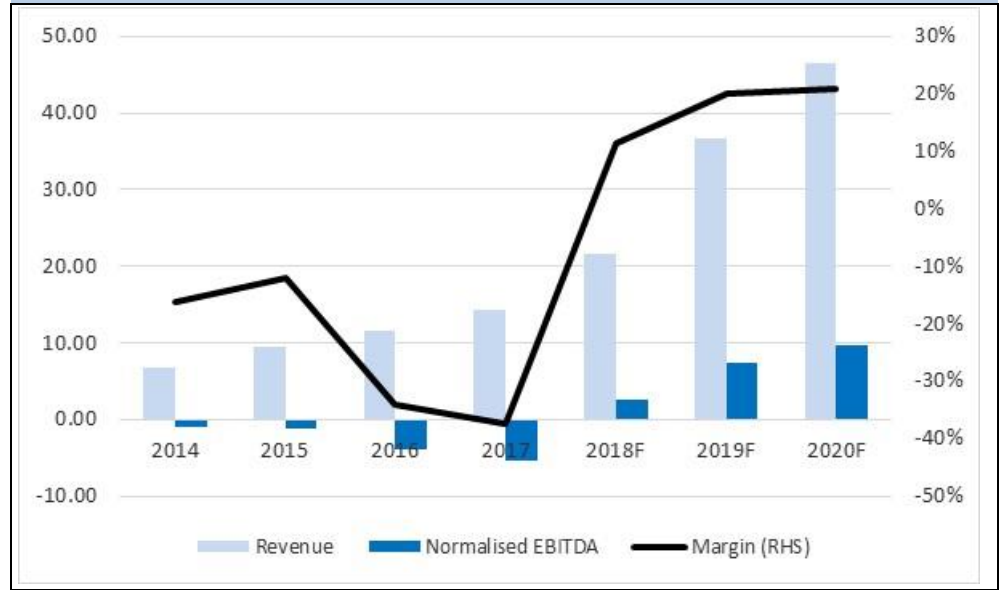
Outlook beyond FY18: At the expected year-end FY18 run rate we expect engine sales to be roughly \$28m in FY19. Our estimates are conservative when compared the throughput expected to be achieved by the Company. Manufacturing capacity is approximately \$60m based on the current cost structure. OEC currently supply engine parts to Textron Systems (which generates circa \$4m in annual revenue). This agreement with the number 2 player in the segment expires in 18 months. While this puts the parts supply revenue at risk, it does provide an opportunity to try and sell a complete propulsion system to Textron at that point.

On the basis of our sales forecasts to Insitu, continued revenue from Textron and the start-up of the servicing business in FY19 we forecast revenue of \$21.6m in FY18 (versus guidance of \$22m), \$36.7m in FY19 and \$46.6m in FY20. The current three-year LTA with Insitu is for a minimum of A\$44 million and a maximum order value of A\$120 million. In comparison over the next three financial years we estimate A\$74.2m of new engine sales. OEC's medium term goal is to secure a second LTA (in the same order of magnitude as the \$120m N20B Scaneagle agreement with Insitu) which along with the ScanEagle contract and a growing service order book would diversify revenue and build an order book in the \$250-350m range.

Likely Margin: The gross margin expected on engine sales is close to 50% and overheads have been reduced (by \$3m) to circa \$9m per annum.

What is factored in: Discounting the next three years of free cash flow derives a value of circa A\$6.5m or 8.3c per share or 21c per share including the current net cash. So, the market is obviously already factoring in further contract awards. Assuming OEC meets expectations under the current LTA, then further large awards in the STUAS segment looks highly likely, given their relationship with Insitu, Insitu's own strong market presence in this segment and expected continued strong growth in the category overall. OEC's current market value we estimate is factoring in roughly A\$200m of new contract awards. Given the outlook for the sector we view this as achievable, assuming OEC can meet expectations in 2H18.

Fig. 8: Revenue, EBITDA and EBITDA Margin



Source: OEC and Hartleys estimates

RECOMMENDATION & RISKS

INVESTMENT THESIS & RECOMMENDATION

Delivery of supply under the second batch order with Insitu in FY18 (on schedule and to standard) will make FY18 a seminal year for OEC. The industry outlook for Orbital remains extremely positive given the significant UAV opportunities and meeting Insitu's requirements in FY18 will confirm them as an integrated propulsion system manufacturer and supplier to the industry (rather than just supplying an engine component). We expect \$14m of engine sales in 2H18. We have not included any revenue for engine servicing in FY18. After approximately 450 hours of service the engine can be returned to OEC for a rebuild. The cost of rebuilding is around one third the cost of a new engine and an engine can be serviced on average three times.

At the expected FY18 year-end run rate we expect engine revenue to be roughly \$28m in FY19. Our estimates are conservative when compared the throughput expected to be achieved by the Company. Manufacturing capacity is approximately \$60m based on the current cost structure. The gross margin expected on engine sales is close to 50% and overheads have been reduced (by \$3m) to circa \$9m per annum. On the basis of our sales forecasts to Insitu, continued revenue from Textron and the start-up of the servicing business in FY19 we forecast revenue of \$21.6m in FY18, \$36.7m in FY19 and \$45.6m in FY20. The current three-year LTA with Insitu is for a minimum of A\$44 million and a maximum order value of A\$120 million. In comparison over the next three financial years we estimate A\$74.2m of new engine sales for Insitu.

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Fig. 9: Valuation

Valuation - S&P/ASX Small Industrials			
	Target Multiple	Weight	Value
1yr ahead 12mth forward EV/EBITDA	10.6x	25%	\$0.79
1yr ahead 12mth forward P/E (diluted)	15.8x	25%	\$0.54
1yr ahead 12mth forward EV/EBIT	12.5x	25%	\$0.82
DCF	12%	25%	\$0.71
12 Months Price Target			\$0.72
Upside/Downside			84%

Source: Hartleys

RISKS

The key risk to our investment thesis in the short term is OEC not being able fulfil its current LTA with Insitu. This would not only impact our forecasts but impact negatively OEC's reputation as a reliable supplier to the UAV sector.

The UAV sector is growing rapidly, but so is the level of competition. Insitu will likely have to compete with a growing number of drone suppliers for future contracts. There also will likely be a growing number of engine suppliers in the future attracted by the growing UAV market opportunity.

At the moment OEC is benefitting from a shift in military UAV's towards Heavy Fuel engines. In the future new engine technologies could erode the market for Heavy Fuel engines.

OEC is currently heavily reliant on one customer (Insitu) and now two UAV's (the ScanEagle and ScanEagle3). OEC remains heavily exposed to US Military spending on UAV's, however the ramp up of sales of the ScanEagle3 will likely reduce this reliance over time.

SIMPLE S.W.O.T. TABLE

Strengths	35 years of experience in developing proprietary engines and propulsion systems. Chosen as preferred UAVE supplier to Insitu. Established relationships with global leaders in the UAV sector – Insitu and Textron. Strong balance sheet.
Weaknesses	Relative inexperience in full scale engine manufacturing. Initially reliant on a single customer.
Opportunities	OEC's engine currently used in two related drones. Strong growth in the UAV sector. Opportunities to win UAVE customers beyond Insitu. Opportunity to expand sales to other Insitu models beyond the ScanEagle. Ability to leverage of their experience with Insitu to target the even faster growing commercial market.
Threats	Engine technology is rapidly changing – batteries, solar may supersede heavy fuel engines in the future. ScanEagle sales could suffer from competition from within Insitu and other suppliers. Other engine manufacturers actively targeting the same markets. Competing against large and better resourced groups.

Source: Hartleys Research

HARTLEYS CORPORATE DIRECTORY

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Note: personal email addresses of company employees are structured in the following manner: firstname.lastname@hartleys.com.au

Hartleys Recommendation Categories

Buy	Share price appreciation anticipated.
Accumulate	Share price appreciation anticipated but the risk/reward is not as attractive as a "Buy". Alternatively, for the share price to rise it may be contingent on the outcome of an uncertain or distant event. Analyst will often indicate a price level at which it may become a "Buy".
Neutral	Take no action. Upside & downside risk/reward is evenly balanced.
Reduce / Take profits	It is anticipated to be unlikely that there will be gains over the investment time horizon but there is a possibility of some price weakness over that period.
Sell	Significant price depreciation anticipated.
No Rating	No recommendation.
Speculative Buy	Share price could be volatile. While it is anticipated that, on a risk/reward basis, an investment is attractive, there is at least one identifiable risk that has a meaningful possibility of occurring, which, if it did occur, could lead to significant share price reduction. Consequently, the investment is considered high risk.

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