

20 Mar 2018

Share Price:	\$0.40
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

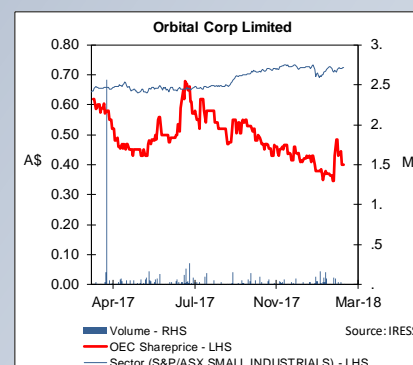
Issued Cap.:	77.3m
- fully diluted	77.8m
M'ket Cap:	\$30.9m
- fully diluted	\$31.1m
Net Cash (FY18e):	\$10.3m

	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)	24.8x	-2.5x	31.4x
P/E (norm)	-7.0x	-6.9x	31.4x
EV / EBITDA	-5.4x	-4.0x	8.5x
DPS (\$)	-	-	-

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

Source: Hartleys Research



Authors:

Aiden Bradley
Analyst - Energy and Industrials
Ph: +61 8 9268 2876
E: aiden.bradley@hartleys.com.au

ORBITAL CORPORATION LTD (OEC)

Time to Deliver ('N20B's to Insitu')

Orbital Corporation Ltd. ('Orbital', 'OEC' or the 'Company') recently reported its half year result. During the latest half year period OEC completed both the initial A\$12m N20 batch order delivery to Insitu-Boeing and the \$800,000 Mark II N20 engine performance upgrade. The latter exceeded the clients targeted power and weight improvement. This sets the base for what will now be a pivotal second half, the delivery (on a full commercial scale) of the first batches of the new improved Mark II N20 Engine ('N20B'). The N20B itself received full US flight clearance during the period.

Building the base

In preparation for this ramp up, the Company divested its non-core REMSAFE division for an unconditional cash payment of A\$2.2m. OEC also secured an exclusive lease over a purpose-built facility in the Hood River region of the US, a hub of drone technology companies and the location of Insitu-Boeing. This facility will also allow OEC to target complementary business opportunities (high value component players). The cash and receivables balance ended the 1H18 half at A\$20.9m, supporting the build out of the new US facility and complementary revenue streams.

2H Outlook and beyond

Most importantly, OEC has maintained full year revenue guidance of circa A\$22 million (and expects a modest full year profit). This compares to 1H18 revenue of \$5.94m (net loss of \$2.28m from continuing operations) and compares to Hartleys FY18 revenue estimate of \$21.64m and a net profit of \$1m (both remain unchanged). Our only forecast change is that we have lowered our FY18-FY19 capital expenditure to reflect the leasing of the US facility, instead of the alternative acquisition of a facility or existing business.

At this 2H18 run rate we expect engine sales to be roughly \$28m in FY19. Our estimates are conservative when compared to 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 sales to Insitu, continued revenue from Textron and the start-up of the servicing business in FY19 we forecast Group revenue of \$21.6m in FY18, \$36.7m in FY19 and \$46.6m in FY20.

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

Our valuation and 12-month forward target price of **\$0.72 per share** (up 1c on lower capex) 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)							
Company Information							
Date	20 Mar 2018				4 Whipple Street		
Share Price	\$0.40				Balcatta, Western Australia, 6021		
52 Week High-Low	\$0.95 - \$0.43				Telephone: 61 (08) 9441 2311		
Market Cap (\$m)	\$31.1						
Enterprise Val (\$m)	\$21.2						
Ordinary Shares	77.3						
Fully Diluted Shares	77.8						
Current Cash	17.1						
Current Debt	7.2						
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							
Upside/Downside							79%
<i>Fully diluted P / E (6/18F) at price target</i>							
							56.3x
<i>Fully diluted P / E (6/19F) at price target</i>							
							12.7x
<i>EV/EBITDA (6/19F) at price target</i>							
							6.3x
<i>EV/EBIT (6/19F) at price target</i>							
							6.9x
Multiples (S/price at \$0.40)							
	6/14A	6/15A	6/16A	6/17A	6/18F	6/19F	
P / E (basic, weighted)	18.4x	-4.7x	24.8x	-2.5x	31.4x	7.2x	
P / E (diluted, weighted, norm NPAT)	-18.6x	-10.6x	-7.0x	-6.9x	31.4x	7.2x	
P / E (full dil mkt cap / norm. NPAT)	-18.7x	-15.0x	-7.2x	-7.0x	31.4x	7.2x	
Dividend Yield	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
Group Free Cash Flow (f.c.f) / EV	-5.0%	-30.8%	84.7%	-31.9%	2.0%	4.7%	
Equity f.c.f. / Mkt Cap	-3.4%	-21.0%	57.8%	-21.7%	1.3%	3.2%	
Norm f.c.f. / Mkt cap	12.7%	14.8%	80.7%	-16.9%	6.1%	8.0%	
Mkt cap / operating cash flow	-16.2x	-9.2x	-6.1x	-6.4x	17.1x	6.2x	
EV/EBITDA multiple	-19.5x	-18.6x	-5.4x	-4.0x	8.5x	2.9x	
EV/EBIT multiple	-10.6x	-10.1x	-4.4x	-3.6x	11.1x	3.2x	
Price / Book Value	1.5x	1.4x	1.0x	1.6x	1.5x	1.3x	
Ratios							
	6/14A	6/15A	6/16A	6/17A	6/18F	6/19F	
Return on Average Equity	-7.9%	-9.7%	-16.3%	-17.6%	5.0%	19.4%	
Return on Assets	-4.4%	-4.4%	-8.8%	-12.2%	2.6%	10.0%	
Return on Assets	0.0%	-180.5%	0.0%	0.0%	0.0%	0.0%	
ND / ND + Equity	10.2%	31.2%	-124.0%	-106.4%	-104.4%	-85.5%	
Net Interest Cover (EBIT)	5.3x	2.5x	3.8x	13.9x	-3.9x	-14.0x	
ROIC							
Free Cash Flow Analysis							
	6/14A	6/15A	6/16A	6/17A	6/18F	6/19F	
Net Operating Cash Flow	-1.9	-3.4	-5.1	-4.9	1.8	5.0	
Capex (Reported)	0.9	-3.2	23.1	-1.9	-1.4	-4.0	
Group Free Cash Flow (rep'ted)	-1.1	-6.5	18.0	-6.8	0.4	1.0	
Fixed Debt Repayments							
Equity Free Cash Flow (rep'ted)	-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							
	6/14A	6/15A	6/16A	6/17A	6/18F	6/19F	
Ord Issued shares (m)	77.3	77.3	49.0	75.3	77.3	77.3	
Weighted Average Shares (m)	77.3	77.3	62.2	76.3	77.3	77.3	
Diluted shares wgted (m)	77.3	55.0	75.2	76.8	77.8	77.8	
Major Shareholders							
Name	Shares (m)		% Outstanding				
Utilico Investment Ltd	23,228		29.9%				
CBA	7,729		9.9%				
Directors & Senior Management							
Name	Position	Shares	Rights				
John Welborn	Chairman	779,103	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					
Analyst: Aiden Bradley Phone: +61 8 9268 2876 Sources: IRESS, Company Information, Hartleys Research							

Speculative Buy							
Profit & Loss (\$m)							
	6/14A	6/15A	6/16A	6/17A	6/18F	6/19F	
Revenue	6.77	9.55	11.63	14.25	21.64	36.67	
Growth	0%	41%	22%	23%	52%	69%	
UAV	2.75	3.56	3.14	11.45	19.14	34.68	
Growth	0%	29%	-12%	265%	67%	81%	
Safety & Productivity							
	0.00	2.28	5.81	0.69	0.52	0.00	
Growth	0%	0%	155%	-88%	-25%	0%	
Consumer							
	1.12	0.78	0.79	0.80	0.80	0.80	
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%	
Normalised EBITDA							
	-1.09	-1.14	-3.96	-5.34	2.49	7.33	
Margin	-16%	-12%	-34%	-37%	12%	20%	
D&A							
	-0.91	-0.97	-0.92	-0.58	-0.58	-0.65	
EBIT							
	-2.00	-2.11	-4.88	-5.91	1.91	6.69	
Finance Expenses							
	-0.38	-0.86	-1.30	-0.43	-0.50	-0.48	
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	
Tax Rate	30%	30%	30%	30%	30%	30%	
Normalised Net Profit							
Abnormals	3.34	-2.65	5.54	-7.81	0.00	0.00	
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%	
Cash Flow (\$m)							
	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	
Investing	0.9	-3.2	23.1	-1.9	-1.4	-4.0	
Financing	-0.4	8.6	-0.6	-0.7	0.0	0.0	
Net inc./dec. in cash	-1.5	2.1	17.4	-7.5	0.4	1.0	
Balance Sheet (\$m)							
	6/14A	6/15A	6/16A	6/17A	6/18F	6/19F	
Cash	5.42	6.65	24.87	17.13	17.55	18.54	
WC Assets	5.76	6.99	10.26	9.75	10.00	11.00	
Other	4.67	2.67	1.43	2.63	2.63	2.63	
Current Assets	15.84	16.31	36.56	29.51	30.18	32.17	
Investment in Associates							
	13.98	17.83	0.00	0.00	0.00	0.00	
PP&E							
	2.85	2.26	5.48	5.51	6.33	9.68	
Other							
	5.00	11.15	7.14	1.50	1.50	1.50	
Non-Current Assets							
	21.83	31.24	12.63	7.00	7.83	11.18	
Total Assets	37.67	47.54	49.19	36.51	38.01	43.35	
Payables							
	3.70	4.51	6.45	6.50	7.00	8.00	
Other							
	3.83	3.47	3.15	3.12	3.12	3.12	
Current Liabilities							
	7.53	7.98	9.61	9.62	10.12	11.12	
LT Debt							
	7.81	7.74	7.56	7.24	7.24	7.24	
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	
Total Liabilities							
	16.62	25.60	17.92	17.33	17.83	18.83	
Net Assets	21.05	21.94	31.27	19.18	20.17	24.52	
Net Asset Value / Share (\$)							
	0.27	0.28	0.40	0.25	0.26	0.32	
NTA / Share (\$)							
	0.21	0.14	0.31	0.23	0.24	0.30	
Net Debt (net cash)							
	2.40	9.96	-17.3	-9.9	-10.3	-11.3	
Last Updated 20 March 2018							

HIGHLIGHTS

OEC recently reported its half year result. During the half year period OEC completed both the initial A\$12m N20 batch order delivery to Insitu-Boeing and the \$800,000 Mark II N20 engine performance upgrade. The latter exceeded the targeted power and weight improvement. This sets the base for what will now be a pivotal second half, the delivery (on a full commercial scale) of the first batches of the new improved Mark II N20 Engine (N20B). The N20B itself received full US flight clearance during the period.

In preparation for this ramp up, the Company divested its non-core REMSAFE division for an unconditional cash payment of A\$2.2m. OEC also secured an exclusive lease over a purpose-built facility in the Hood River region of the US, a hub of drone technology companies and the location of Insitu-Boeing. This facility will also allow OEC to target complementary business opportunities (high value component players). The cash and receivables balance ended the 1H18 half at A\$20.9m, supporting the build out of the new US facility and complementary revenue streams.

Most importantly, OEC has maintained full year revenue guidance of circa A\$22 million (and expects a modest full year profit). This compares to 1H18 revenue of \$5.94m (net loss of \$2.28m from continuing operations) and compares to Hartleys FY18 revenue estimate of \$21.64m and a net profit of \$1m (both remain unchanged). Our only forecast change is that we have lowered our FY18-FY19 capital expenditure to reflect the leasing of the US facility, instead of the alternative acquisition of a facility or existing business.

2H18 Outlook

Delivery of the first N20B requested supply under the LTA, starting with the now incorporated second batch order, in 2H18 (on schedule and to standard) will make FY18 a seminal year for OEC. The industry outlook for Orbital remains extremely positive given the significant UAVE opportunities and meeting Insitu's requirements in FY18 will confirm them as an integrated engine manufacturer and supplier to the industry (rather than just supplying an engine component).

FY18 Revenue: We continue to expect circa \$14m in engine sales in 2H18, these deliveries have not yet begun, so the next 3 months are critical. 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. The servicing business will eventually be based at the US facility.

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. 1: Revenue, EBITDA and EBITDA Margin

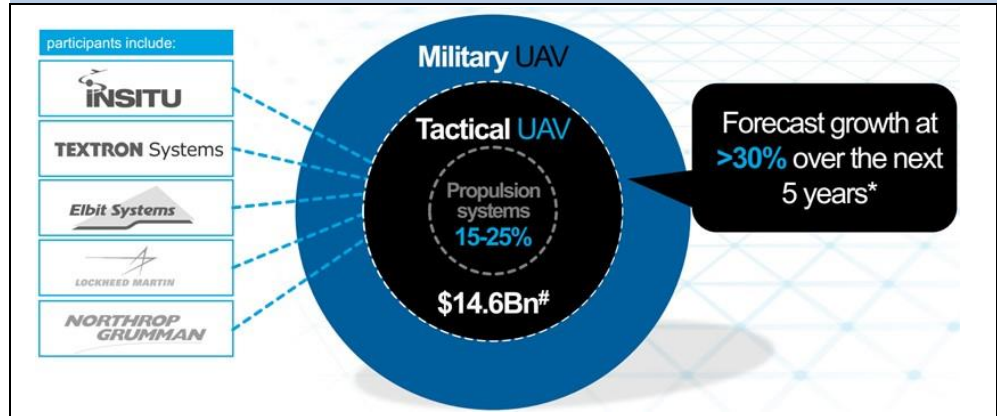


Source: OEC and Hartleys estimates

Market Opportunity – The Shift to Heavy Fuels


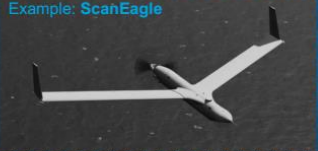
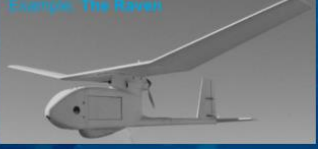
The engine market opportunity for Small Tactical Unmanned Aircraft Systems (STUAS) in FY18 is circa US\$150m. The two market leaders are Textron and Insitu with circa 90% of the market between them. The latter has about a 70% market share, with the ScanEagle the long-time benchmark for the segment.

Fig. 2: Market Opportunity – Tactical UAV



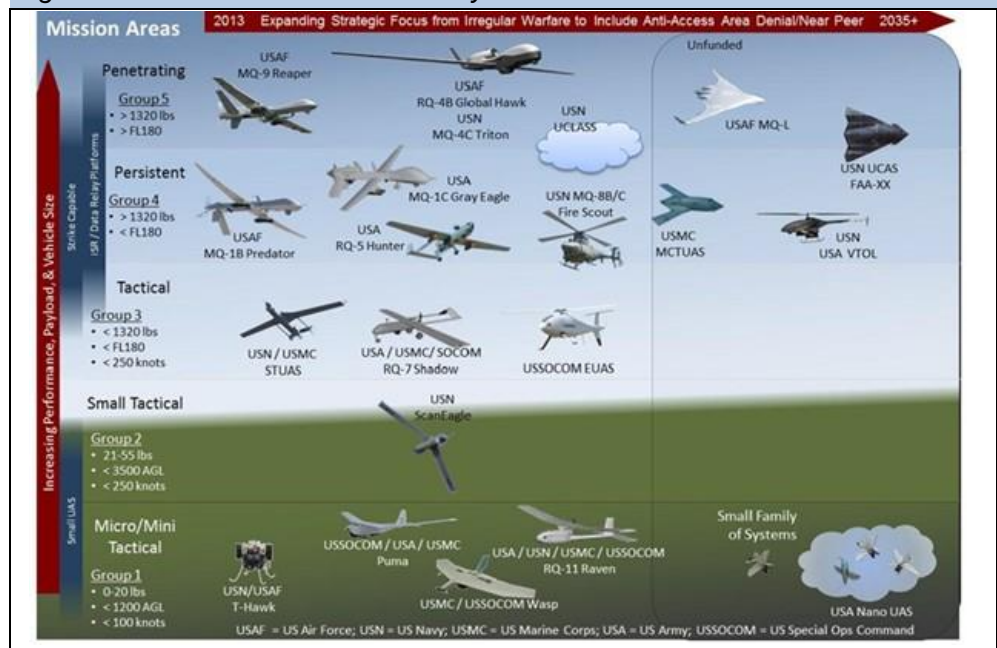
Source: OEC. Teal Group Corporation. #For the years 2017-2028.

Fig. 3: Target Market – Tactical UAV

CURRENT FOCUS	Combat UAV	<ul style="list-style-type: none"> • Price per aircraft: \$55 million - \$65 million* • Payload: up to 1,700kg • Length: up to 11 m • Wingspan: up to 20 m • Max endurance: 27 hours • Max altitude: 50,000 ft 	<p>Example: MQ-9 Reaper</p> 
	Tactical UAV	<ul style="list-style-type: none"> • Price per aircraft: \$2.5 million - \$4 million per system** • Payload: up to 5kg • Length: up to 2m • Wingspan: up to 5m • Max endurance: 24 hours • Max altitude: 20,000 ft 	<p>Example: ScanEagle</p> 
	Mini UAV	<ul style="list-style-type: none"> • Price per aircraft: ~\$180,000 per system*** • Payload: up to 3.5kg • Length: up to 0.9 m • Wingspan: up to 1.5 m • Max endurance: 60-90 minutes • Max altitude: 500 ft 	<p>Example: The Raven</p> 

Source: OEC

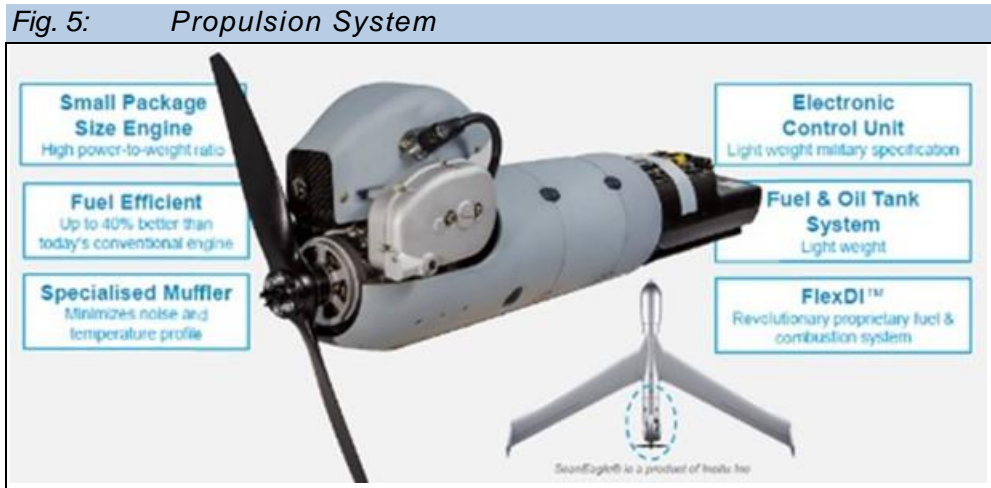
Fig. 4: Unmanned Aircraft Systems



Source: US DoD

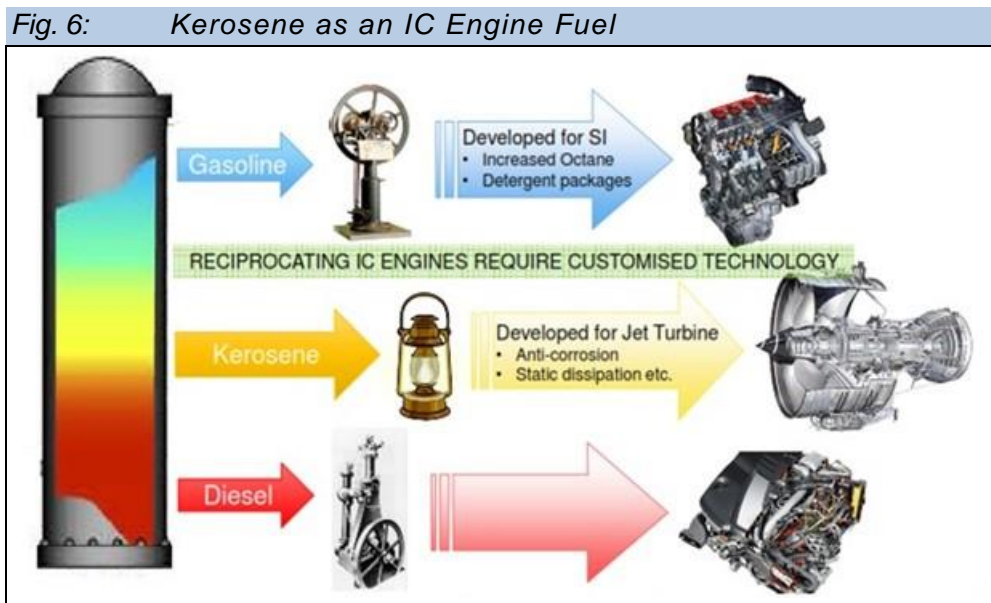
OEC Competitive Advantage – Patented Injector System

The Tactical Drone segment shifting to using heavier fuels (two stroke propulsion system) has created this opportunity for OEC. Its patented injection system offers potentially the best power for weight option. While the OEC engine system may cost 2-3 times more than its main competitor, it lasts 6-7 times longer. Utilising its injection system, OEC has designed and manufactures a bespoke heavy fuel engine package for the ScanEagle.



Source: Insitu, OEC

The shift to heavy fuel engines has occurred for military usage given its availability in the battlefield (it is more widely available than gasoline and easier to access). This has opened the door for OEC given their 30 years of experience with 2 stroke heavy fuel injectors and engines.

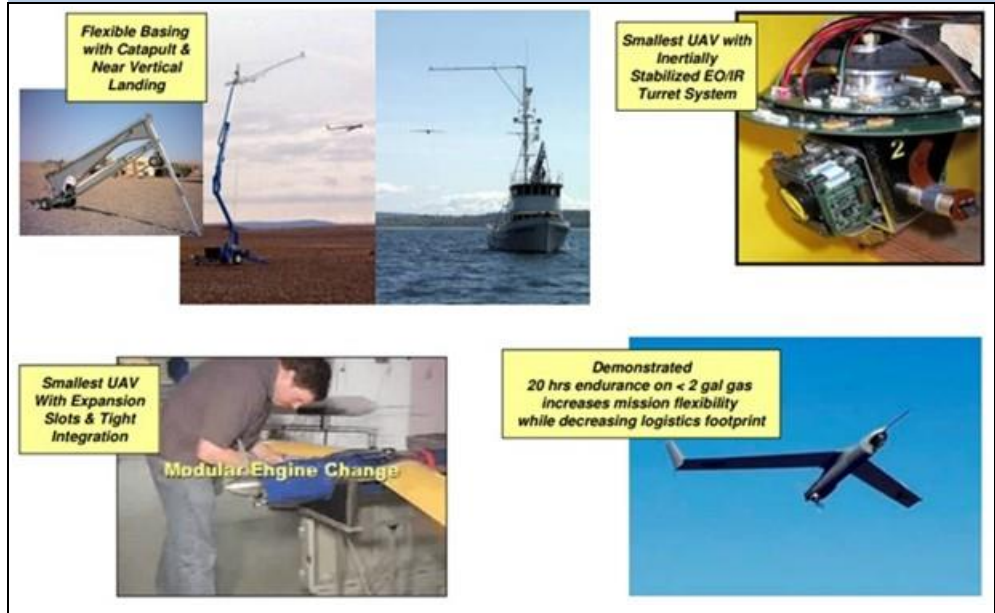


Source: OEC

In their press releases Insitu market the latest ScanEagle as featuring upgraded avionics, expanded payload options and a **'new heavy fuel* purpose-built propulsion system'** (i.e OEC's engine) that dramatically improves reliability and performance. Backed by the experience of more than 965,000 flight hours on land

and at sea, the aircraft maximizes commonality with Insitu systems, saving money on life-cycle costs and training. *e.g. Jet Fuel or High Flash Point Kerosene.

Fig. 7: ScanEagle – Four Key Hardware Differentiators



Source: Insitu

The OEC engine not only gives increased fuel efficiency but in testing undertaken by Insitu provides improved performance and reliability.

Fig. 8: OEC Fuel Injector versus competing technologies

How does it work?

Competing Technologies	
Technology	Application Issue
Gas Turbine	<ul style="list-style-type: none"> Expensive High Fuel Consumption Practical minimum size limit
Diesel – Compression Ignition	<ul style="list-style-type: none"> Heavy - poor power/weight and power/package size High vibration signature
Adding Heaters to pre-condition fuel	<ul style="list-style-type: none"> Needs external power source Needs time to heat fuel / engine No fuel consumption benefit Limited knock / pre-ignition control for high temperatures
High Pressure Direct Injection	<ul style="list-style-type: none"> Complex and heavy system including EMS and high pressure fuel pump Higher voltage/power drivers
Others	<ul style="list-style-type: none"> Systems developed for SUAS engines that compromise between power and fuel consumption.

Source: OEC

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 UAVE opportunities and meeting Insitu's requirements in FY18 will confirm them as an integrated engine 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.

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 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 FY18. Our valuation and 12-month forward target price of **\$0.72 per share** (up 1c on back of lower capex) is based on potentially conservative assumptions of OEC trading at parity 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.

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%	\$0.55
1yr ahead 12mth forward EV/EBIT	12.5x	25%	\$0.82
DCF	12%	25%	\$0.71
12 Months Price Target			\$0.72
Upside/Downside			80%

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 one UAV (the ScanEagle). As a result, additionally OEC is directly exposed to US Military spending on UAV's.

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. OEC's engine currently used in a single drone.
Opportunities	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

Research

Trent Barnett	Head of Research	+61 8 9268 3052
Mike Millikan	Resources Analyst	+61 8 9268 2805
John Macdonald	Resources Analyst	+61 8 9268 3020
Paul Howard	Resources Analyst	+61 8 9268 3045
Aiden Bradley	Research Analyst	+61 8 9268 2876
Michael Scantlebury	Junior Analyst	+61 8 9268 2837
Janine Bell	Research Assistant	+61 8 9268 2831

Corporate Finance

Dale Bryan	Director & Head of Corp Fin.	+61 8 9268 2829
Richard Simpson	Director	+61 8 9268 2824
Paul Fryer	Director	+61 8 9268 2819
Ben Crossing	Director	+61 8 9268 3047
Ben Wale	Associate Director	+61 8 9268 3055
Stephen Kite	Associate Director	+61 8 9268 3050
Scott Weir	Associate Director	+61 8 9268 2821
Rhys Simpson	Manager	+61 8 9268 2851

Registered Office

Level 6, 141 St Georges TcePostal Address:

PerthWA 6000 GPO Box 2777
Australia Perth WA 6001
PH:+61 8 9268 2888 FX: +61 8 9268 2800
www.hartleys.com.au info@hartleys.com.au

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.

Institutional Sales

Carrick Ryan	+61 8 9268 2864
Justin Stewart	+61 8 9268 3062
Simon van den Berg	+61 8 9268 2867
Chris Chong	+61 8 9268 2817
Digby Gilmour	+61 8 9268 2814
Cooper Rogers	+61 8 9268 3053

Wealth Management

Nicola Bond	+61 8 9268 2840
Bradley Booth	+61 8 9268 2873
Adrian Brant	+61 8 9268 3065
Nathan Bray	+61 8 9268 2874
Sven Burrell	+61 8 9268 2847
Simon Casey	+61 8 9268 2875
Tony Chien	+61 8 9268 2850
Tim Cottee	+61 8 9268 3064
David Cross	+61 8 9268 2860
Nicholas Draper	+61 8 9268 2883
John Featherby	+61 8 9268 2811
Ben Fleay	+61 8 9268 2844
James Gatti	+61 8 9268 3025
John Goodlad	+61 8 9268 2890
Andrew Gribble	+61 8 9268 2842
David Hainsworth	+61 8 9268 3040
Neil Inglis	+61 8 9268 2894
Murray Jacob	+61 8 9268 2892
Gavin Lehmann	+61 8 9268 2895
Shane Lehmann	+61 8 9268 2897
Steven Loxley	+61 8 9268 2857
Andrew Macnaughtan	+61 8 9268 2898
Scott Metcalf	+61 8 9268 2807
David Michael	+61 8 9268 2835
Jamie Moullin	+61 8 9268 2856
Chris Munro	+61 8 9268 2858
Michael Munro	+61 8 9268 2820
Ian Parker	+61 8 9268 2810
Charlie Ransom	+61 8 9268 2868
Mark Sandford	+61 8 9268 3066
David Smyth	+61 8 9268 2839
Greg Soudure	+61 8 9268 2834
Sonya Soudure	+61 8 9268 2865
Dirk Vanderstruyf	+61 8 9268 2855
Samuel Williams	+61 8 9268 3041
Jayne Walsh	+61 8 9268 2828

Disclaimer/Disclosure

The author of this publication, Hartleys Limited ABN 33 104 195 057 ("Hartleys"), its Directors and their Associates from time to time may hold shares in the security/securities mentioned in this Research document and therefore may benefit from any increase in the price of those securities. Hartleys and its Advisers may earn brokerage, fees, commissions, other benefits or advantages as a result of a transaction arising from any advice mentioned in publications to clients.

Any financial product advice contained in this document is unsolicited general information only. Do not act on this advice without first consulting your investment adviser to determine whether the advice is appropriate for your investment objectives, financial situation and particular needs. Hartleys believes that any information or advice (including any financial product advice) contained in this document is accurate when issued. Hartleys however, does not warrant its accuracy or reliability. Hartleys, its officers, agents and employees exclude all liability whatsoever, in negligence or otherwise, for any loss or damage relating to this document to the full extent permitted by law.