KRC Insights

FLYHT AEROSPACE SOLUTIONS LTD.

FLY-V: $1.59; FLYLF-OTC: US$1.19

20 MAY 2019

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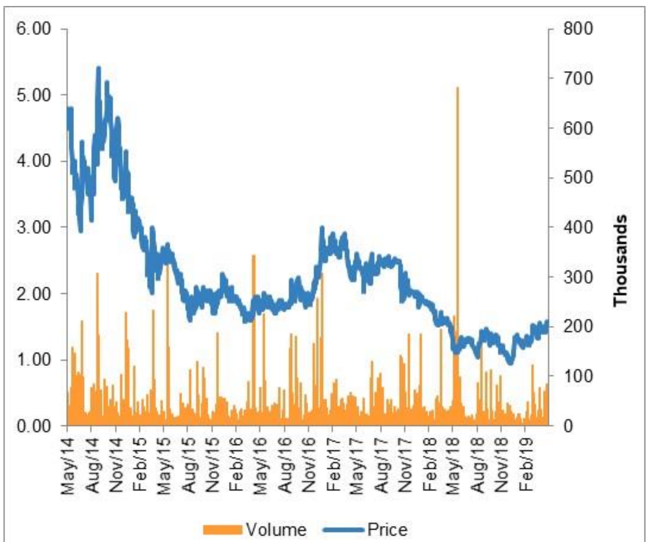
Price	**$1.59**	**Market Cap**		**$32.5**
Target Price	$3.60	Debt		$2.7
Projected Return	126%	Convert. debt		$2.0
52 Week Range	1.59 / 0.94	Cash		$2.7
Basic Shares O/S (000's)	21,059	EV ($m's)		$34.5
FD Shares O/S (000's)	24,479			
Insiders	5.3%			
Dec Y/E, ($000's)	**2017A**	**2018A**	**2019E**	**2020E**
Revenues	14,019	13,591	25,234	33,974
EBITDA	(1,240)	(1,788)	1,161	2,102
EPS	-0.09	-0.09	-0.02	0.04
EV/Sales	2.46x	2.54x	1.37x	1.02x



Profile

FLYHT Aerospace Solutions Ltd is a Canadian designer and developer of hardware and software for the aerospace industry. Its primary product, the Automated Flight Information Reporting System (AFIRS), operates on multiple aircraft types and provides real-time streaming functions, such as safety services voice and text messaging, data collection and transmission, as well as on-demand streaming of flight data recorder (black box), engine and airframe data. AFIRS data is transmitted via the Iridium satellite network to its UpTime ground-based server, which in turn routes the data to customer-specified end points and provides an interface for aircraft interaction. FLYHT has announced trials with Inmarsat to expand its service offering.

Q1/19: Raising target to $3.60 from $3.40 to reflect maturing business opportunities.

HIGHLIGHTS

- FLYHT reported 61% YoY revenue growth in Q1/19 driven by the PWS acquisition and a strong increase in AFIRS units sold (48 vs 31 LY). Of the increase, 22 units were sold into China. We believe that Q1 marks the initial sign that the long-awaited Chinese business is finally ramping.
- Further, management has indicated that several revenue opportunities are maturing, specifically, additional Chinese carriers, Licensing revenues and Technical Services fees. Combined with the strong AFIRS sales, we believe that in aggregate, these are indicative of impending revenue momentum.
- Expenses remain well managed. In the original business we estimate that costs in fact declined YoY, while the increase in costs associated with the PWS acquisition continue to be offset by the subsidy.
- We believe that FLYHT will be cash flow positive in 2019E and also in 2020E as the loss of the PWS subsidy will be offset by the ramp in revenues in that year.
- We have increased confidence that the debentures will be converted and that the associated warrants will be exercised. Such actions will substantially improve the balance sheet.
- We account for the above factors in our valuation by raising the SaaS revenue multiple, reducing the capital raise from $5.0m to $2.5m and now valuing the Licensing revenues. The net impact of these actions drives the increase in the target price to $3.60 from $3.40.

Disclosures

Please refer important disclosures on p9.

Revenues

For its Q1/19, FLYHT reported a 61% increase in revenues driven almost equally by the PWS acquisition (Figure 1) and increased AFIRS unit sales. We estimate that PWS contributed $1.1m in revenues implying that FLY generated 27% organic revenue growth.

The largest contributor to this organic growth was the 51.6% increase in hardware revenues, comprising solely of AFIRS units. From a unit perspective, sales increased to 48 units from 31 in Q1/18. FLYHT sold 99 units in 2018 (i.e. sold 48.5% of the 2018 unit sales in Q1).

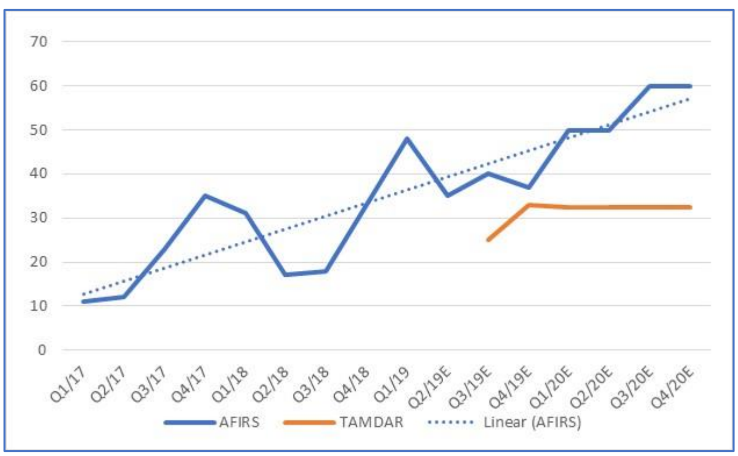
Figure 1: FLYHT Q1/19 revenues ($000's)

	Q1/19	Q1/18	% change	
SaaS	2,405.2	1,043.0	130.6%	Assuming $1.1m contribution from PWS acquisition, implies 25% YoY organic growth. On the Q1 CC management stated that organic growth was "approximately 20%".
Hardware	2,374.9	1,566.3	51.6%	Number of AFIRS units sold increased to 48 from 31 of which 22 were sold into China.
Licensing	377.8	626.9	-39.7%	Fluctuates due to timing of receipt of licensing orders from L-3.
Technical Services	183.8	82	124.1%	Lumpy as reflects work completed on specific installation contract(s)
Total	**5,341.7**	**3,318.3**	61.0%	

Source: Company reports; KRC Insights

In Figure 2 we show the quarterly ramp in hardware unit sales, both historically and forecast. As can be seen Q1/19 marks an all-time high in terms of AFIRS unit shipments. We believe that this is the start of the long-awaited Chinese ramp to meet the 31/12/19 deadline, as 22 units were sold into China. Q1/19 included units delayed from shipping in Q4/18, which we estimate at 8 units, hence the "decline" modelled for Q2/19E reflects our estimate of the normalized run rate for unit sales.

Figure 2: FLYHT Q1/19 hardware unit sales



Source: Company reports; KRC Insights

Margins

Gross margins declined year over year due to sales mix (Figure 3).

Figure 3: FLYHT Q1/19 margins

	Q1/19	Q1/18	Explanation
Gross margin	54.5%	59.9%	Reduction due to higher hardware sales (30%-40% margin), lower margin PWS revenues and lower licensing fees (~90% margin).
EBITDA margin	12.7%	-14.7%	Profitability of original AFIRS business masked by increased costs associated with PWS acquisition offset by subsidy payment. Margin includes PWS subsidy.

Source: Company reports; KRC Insights

Expenses

Costs were lower than last year when excluding the impact of the PWS acquisition and its subsidy (Figure 4).

Figure 4: FLYHT Q1/19 expenses ($000's)

	Q1/19	Q1/18	Explanation
Distribution expenses	2,066.8	1,240.6	Increase due to PWS acquisition
Administrative expenses	955.3	530.0	Increase due to PWS acquisition
R&D	707.9	739.2	Increase due to PWS acquisition
Total expenses	3,730.0	2,509.8	
PWS subsidy	-1,317.0	-	Subsidy offsets negative impact on EBITDA of PWS cost base
Net expenses	2,413.0	2,509.8	Net expenses, representing pre-merger FLYHT only, declined YoY reflecting impact of cost management

Source: Company reports; KRC Insights

Estimate changes

The Q1 results and management commentary suggests that the FLYHT business model is evolving and several opportunities are maturing. In Figure 5 we summarize our updated revenue forecasts.

Figure 5: FLYHT revenue forecast changes ($000's)

	2019E		2020E		Explanation
	Updated	Previous	Updated	Previous	
SaaS	10,577	11,907	13,878	15,541	Net impact of incr. unit sales+ attach rate revision
Hardware	11,463	10,556	17,596	15,946	Upward revision of AFIRS units sold due to strong Q1
Licensing	2,394	1,400	2,000	1,400	Receipt of US$1.8m OEM order+ more news coming
Technical Services	800	250	500	250	Q2 various revenue generating development programs being concluded
Total	25,234	24,113	33,974	33,136	

Source: Company; KRC Insights

SaaS. SaaS revenues came in as expected and management provided updated attach rate numbers (the number of hardware units generating monthly recurring revenues). Not all AFIRS units sold generate monthly recurring revenues.

There are 325 AFIRS units and 225 TAMDAR units generating monthly recurring revenues. The split between TAMDAR-only and TAMDAR/FlightLink was not disclosed.

We have revised down our attach rate assumption (Figure 5) but note that this is a subject to revision depending on the nature of future contracts signed. For instance, if an airline is signed up with existing AFIRS units installed but not turned on (e.g. an A320/A330 carrier having had its AFIRS units installed under license by L-3) the attach rate may increase to in excess of 100% as the number of existing units turned on would exceed the units now being sold by FLYHT into the carrier.

Hardware. We believe that the strong Q1/19 AFIRS shipments represents the commencement of the Chinese airlines positioning themselves for the CCAR 121 R5 deadline of 31/12/19. Hence, we increased the number of AFIRS units sold (Figure 5 and 6). FLYHT has captured 23 of the 57 Chinese carriers and management stated on the Q1/19 conference call that it has “several more opportunities in the sales funnel”. Our forecasts are based on the existing order book only implying if/when these announcements are made, we would update our forecasts accordingly.

Figure 6: FLYHT hardware unit sales estimates

	2019E		2020E		Explanation
	Updated	Previous	Updated	Previous	
AFIRS	160	140	220	200	Stronger Chinese ramp than originally forecast
TAMDAR	60	75	130	135	AirAsia installations to commence in Q3/19 vs our estimate of Q2/19. Shifted roll out back by one quarter.

Source: Company; KRC Insights

Licensing. We originally forecast that L-3 licensing revenues had plateaued at a lower run rate and had not attributed any value to them. However, the 15/4/19 announcement of a US$1.8m OEM purchase order to be shipped in 2019 shows that Licensing revenues will be stronger in 2019 than originally forecast. In addition, management stated on the Q1/19 conference call that “licensing revenues should be higher in 2019 over 2018…(with) more news coming” implying additional licensing revenues still to come (Figure 5).

Technical Service revenues, while small, are an important indicator of future business. These revenues are typically generated when a customer requires AFIRS installation on a new aircraft type. Hence, the receipt of Technical Service revenues is indicative of the fact that the customisation work is complete and that AFIRS deployment/installation should commence (i.e. is a leading indicator of future business). In the Q1/19 Letter to Shareholders, it was stated that FLYHT “expect(s) to see increases in Technical Services… to continue into Q2 2019 as various revenue generating development programs in this category are concluded.” We raised our Technical Service forecast accordingly (Figure 5).

Balance Sheet

FLYHT has historically been a negative cash flow generator, however this changed in Q4/18 (+$53.7k EBITDA) and accelerated in Q1 ($676.3k). Our model reflects that the acceleration of the AFIRS sales commencing in Q1 and other maturing business prospects will result in a positive cash flow business in 2019E and 2020E. The loss of the PWS subsidy in F2020 is offset by the overall higher revenue rate, refer to Appendix I.

Also, FLYHT has access to additional sources of funding as follows:

- **Operating loan**. FLYHT has access to $1.5m on its undrawn operating demand loan.
- **WINN loan**. FLYHT has $2.761 million in contributions under WINN loans not yet received.
- **Convertible debentures**. Issued 24/7/18, matures 24/4/21 and carries an 8% coupon. While not providing cash, their conversion will improve the balance sheet by capitalising $2.0m worth of debt (Figure 7). The conversion price is $1.30/share. Forced conversion occurs when the common shares trade =/+ $1.80 for 20 consecutive days.

- **Warrants**. However, if the warrants are exercised this would raise $1.11m. The 2-year warrants issued with the debentures are subject to an acceleration clause whereby the warrant expiry date is accelerated to 30 days from notice. Notice can be provided if the common shares trade =/+ $1.90 for 20 consecutive days.

Figure 7 shows the substantial positive potential impact on FLYHT's capital structure of the debenture conversion and warrant exercise.

Figure 7: FLYHT proforma balance sheet if the debentures were converted and warrants exercised ($000's)

Balance sheet at 31/3/19			Conversion	Warrants	Post
Equity	237.4		2,000.0	1,115.3	3,352.7
Debt	4,679.4		-2,000.0		2,679.4
Cash	2,692.8			1,115.3	3,808.1
No. shares	21,935.6		1,538.5	769.2	24,243.2*

Source: Company reports, *=investor presentation shows 24.4m fully diluted shares outstanding, we have used 24.2m shares as the FD # shares for our valuation calculation (Figure 9).

Based on our forecasts, we conclude that FLYHT is adequately funded for its organic growth prospects heading into 2019E and 2020E.

Valuation

We view FLYHT as a Software as a Service (SaaS) provider. In FLYHT's instance, software is licensed on a monthly subscription basis and is centrally hosted on its UpTime server. SaaS is a common delivery model for many business applications, including office software, enterprise resource planning, and supply chain management etc.

While its hardware sales are 'lumpy' and incur long sales cycles, the SaaS revenue stream benefits from its stable and recurring nature, as fees are paid over the life of the contract, typically 5 years.

Figure 8 highlights the major TSX-listed SaaS companies and a select group of US SaaS companies that underwent their initial public offerings (IPO) during 2018. Currently, the TSX listed group is trading at 5.5x EV/2020E revenues and the US list of 2018 SaaS IPOs is trading at 7.9x.

Figure 8: Software as a Service (SaaS) comparable companies (currencies per country)

					EBITDA		Revenues		Rev	EV/Revenues	
	Symbol	Price	Mkt Cap	EV	2019E	2020E	2019E	2020E	Growth	2019E	2020E
FLYHT Aerospace Sol. Ltd	**FLY.V**	**1.59**	**33**	**35**	**1.2**	**2.1**	**25.2**	**34.0**	**34.6%**	**1.37x**	**1.02x**
BSM Technologies Inc	GPS.TO	1.40	112	109	5.7	7.8	57.5	65.0	13.0%	1.89x	1.67x
Descartes Systems Grp Inc	DSG.TO	54.52	4,209	4,207	123.1	117.9	361.5	437.4	21.0%	11.64x	9.62x
Kinaxis Inc	KXS.TO	77.20	2,018	1,765	65.9	56.1	251.2	286.1	13.9%	7.03x	6.17x
Constellation Software Inc	CSU.TO	1,200.02	25,430	25,197	1,246.9	1,089.9	4,750.6	5,455.9	14.8%	5.30x	4.62x
Total or Average							5,420.7	6,244.4	15.2%	**6.46x**	**5.52x**
Select SaaS IPOs (2018)											
DocuSign Inc	DOCU.O	53.59	9,287	8,957	39.3	77.8	694.9	913.6	31.5%	12.89x	9.80x
Dropbox Inc	DBX.O	23.00	10,794	10,056	378.8	463.4	1,642.9	1,883.9	14.7%	6.12x	5.34x
Pivotal Software Inc	PVTL.K	20.04	5,443	5,162	(58.1)	(20.8)	657.8	802.6	22.0%	7.85x	6.43x
Pluralsight Inc	PS.O	33.83	4,684	4,535	(45.1)	(1.9)	315.9	426.1	34.9%	14.35x	10.64x
Smartsheet Inc	SMAR.K	41.25	4,380	4,173	(29.7)	(42.2)	175.3	255.5	45.7%	23.80x	16.33x
Zuora Inc	ZUO	22.33	2,473	2,311	(39.8)	(36.0)	234.1	291.2	24.4%	9.87x	7.93x
Blue Apron Holdings Inc	APRN.K	0.75	146	129	14.8	27.5	538.2	568.3	5.6%	0.24x	0.23x
Snap Inc	SNAP.K	11.49	15,397	14,189	(351.9)	(81.6)	1,591.6	2,076.0	30.4%	8.91x	6.83x
Total or Average							5,850.7	7,217.3	23.4%	**10.51x**	**7.94x**

Source: KRC Insights, Refinitiv Eikon

Broadly speaking, the multiple difference between the Canadian and US groups is attributable to the US stocks having higher revenue growth rates, larger market caps and greater liquidity.

Using a sum of parts approach, we derive an increased target price of C$3.60 (from $3.40) due to the following assumptions and updated assumptions:

- Derived using 2020E revenue estimates
- SaaS revenue multiple of 5.2x applied vs the Canadian peer group trading at 5.5x. We have **raised our multiple** from 5.0x to reflect our increased confidence in FLYHT's maturing business prospects and its ability to execute.
- Licensing fees were originally anticipated to be in decline, we attributed no value to this revenue stream. Given the renewal of the L-3 OEM agreement and anticipation of further fees we view these revenues as sustainable and hence now we attribute value to them.
- A $2.5m capital raise is undertaken to fund organic growth. Formerly we assumed a $5.0m raise but due to our increased confidence that FLYHT is now self funding we have lowered this estimate.

Figure 9: FLYHT valuation. Sum of parts

Updated				Previous			
	2020E	**Multiple**	**Value**		**202E**	**Multiple**	**Value**
SaaS Revenues	13,878	5.2x	72,167	SaaS Revenues	15,540	5.0x	77,701
Hardware	17,596	1.0x	17,596	Hardware	15,976	1.0x	15,946
Licensing fees	2,000	1.0x	2,000	Licensing			-
			91,763				93,647
FD # shares		24,479		FD # shares		24,479	
$2.5m raise		1,250		$5.0m raise		3,333	
			25,729				27,812
Price/share			3.57	Price/share			3.37
Rounded			3.60	Rounded			3.40

Source: KRC Insights

The FLYHT shares are trading at 1.0x EV/2020E revenues vs a Canadian SaaS peer group of 5.5x (Figure 8). As detailed above there are several new revenue opportunities anticipated for FLYHT, some of which are included in our estimates. We believe that the shares will appreciate off the back of these announcements. However, we anticipate a fundamental rerating of the shares if/when FLYHT lands a significant airline/OEM or an Inmarsat-based contract.

Appendix I: Income Statement ($000's)

Dec year-end	$000's	2016	2017	2018	Q1/19	Q2/19E	Q3/19E	Q4/19E	2019E	2020E
SaaS		4,375	4,313	5,529	2,405	2,507	2,642	3,022	10,577	13,878
Hardware		3,932	4,601	5,537	2,375	1,947	3,252	3,889	11,463	17,596
Parts sales/Licensing		5,809	4,952	2,265	378	1,100	500	416	2,394	2,000
Services		216	154	260	184	350	200	66	800	500
Revenues		**14,331**	**14,019**	**13,591**	**5,342**	**5,904**	**6,594**	**7,394**	**25,234**	**33,974**
Total revenue growth		37.0%	-2.2%	-3.1%	61.0%	87.6%	113.3%	83.3%	85.7%	34.6%
Cost of revenue		(4,522)	(4,773)	(5,525)	(2,433)	(2,239)	(3,000)	(3,467)	(11,139)	(15,265)
Gross profit		9,810	9,246	8,066	2,909	3,664	3,594	3,927	14,095	18,709
Distribution Expenses		(4,907)	(4,952)	(5,993)	(2,067)	(2,598)	(2,242)	(2,304)	(9,210)	(9,513)
Administration Expenses		(3,088)	(3,159)	(3,252)	(955)	(974)	(1,088)	(1,146)	(4,164)	(4,417)
R&D		(2,601)	(2,519)	(2,631)	(708)	(797)	(890)	(1,011)	(3,407)	(3,397)
Other income		3,223								
Total costs		(7,373)	(10,629)	(11,876)	(3,730)	(4,369)	(4,220)	(4,461)	(16,780)	(17,327)
Operating income		**2,437**	**(1,383)**	**(3,810)**	**(821)**	**(704)**	**(626)**	**(534)**	**(2,685)**	**1,382**
Interest and other income		30	16	207	6	13	13	*19*	50	50
Forex, Interest paid, convertible deb		(744)	(379)	(472)	(295)	(250)	(250)	*(205)*	(1,000)	(400)
Other*				1,861	1,317	603	603	*603*	3,126	
Net income before taxation		1,724	(1,747)	(2,214)	207	(339)	(260)	(117)	(509)	1,032
Taxation		(11)	(9)	248	(1)	2	1	1	3	(5)
Net income		**1,713**	**(1,756)**	**(1,967)**	**206**	**(337)**	**(259)**	**(116)**	**(507)**	**1,027**
EPS - Basic		$ 0.09	($ 0.09)	($ 0.09)	$ 0.01	($ 0.02)	($ 0.01)	($ 0.01)	($ 0.02)	$ 0.05
EPS - FD		$ 0.09	($ 0.09)	($ 0.09)	$ 0.01	($ 0.02)	($ 0.01)	($ 0.01)	($ 0.02)	$ 0.04
		2016	**2017**	**2018**	**Q1/19**	**Q2/19E**	**Q3/19E**	**Q4/19E**	**2019E**	**2020E**
Gross profit	**%**	68.4	66.0	59.3	54.5	62.1	54.5	53.1	55.9	55.1
Operating margin	**%**	17.0	(9.9)	(28.0)	(15.4)	(11.9)	(9.5)	(7.2)	(10.6)	4.1
EBITDA	**$000's**	2,503.7	(1,239.8)	(1,787.9)	676.3	78.7	157.1	248.6	1,160.6	2,102.4
EBITDA margin	**%**	17.9	(7.7)	-13.2%	12.7%	1.3%	2.4%	3.4%	4.6%	6.2%
Effective tax rate	**%**	0.6	(0.5)	11.2	0.5	0.5	0.5	0.5	0.5	0.5
Net margin	**%**	12.0	(12.5)	(14.5)	3.8	(5.7)	(3.9)	(1.6)	(2.0)	3.0

*=PWS subsidy

Disclosure

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