www.researchdistressed.com **Independent Credit Research LLC**
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Telesat Canada

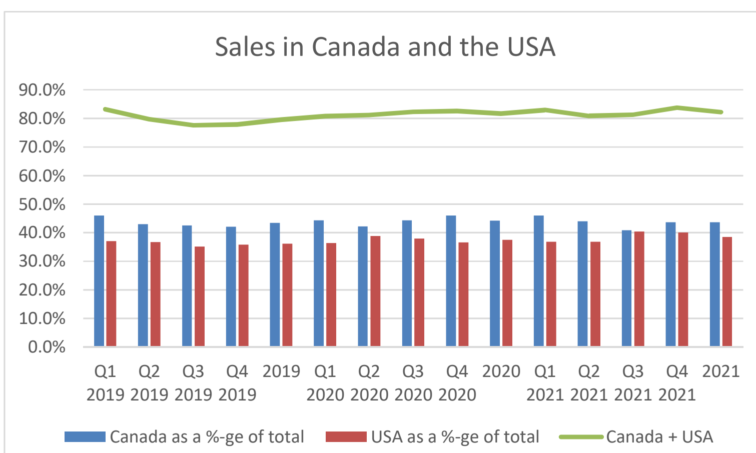
We suggest that distressed investors accumulate the company's secured and unsecured debt. We think that high yield mutual funds have been dumping this debt after having bad taste caused by heavy losses in the Intelsat bankruptcy. As a reminder, Intelsat's bankruptcy was caused by the heavy debt load and the lack of the comprehensive business plan that would have created the future of the company as an ongoing business concern. The overwhelming perception is that the satellite business represents a slowly melting ice cube – after all two wealthiest businessmen on Earth are getting into the LEO business, and there seems to be no place for the competition from the third party. We do not know if that is true at this point. And likely, no one does. However, Telesat still generates free cash flow using its existing GEO satellites, and its transition into the LEO business has been financed by the government of Canada – a pretty reliable source of financial support and future backlog. It appears to us that the company has decent visibility of its operations for the next couple of years. The delay in launch of the Lightspeed program will likely be short-term. We think that within the next 6-12 months, we will see a more normalized view on the business by the market, and the company will enlighten investors about the specifics of the new LEO program. Moreover, it appears to us that the management is looking to take advantage of the current price weakness and to purchase outstanding debt in the open market at a discount.

In addition to the fear caused by the industry connection with Intelsat, investors have been concerned that the future financing of the LEO business will be transferred outside the perimeter of the existing bonds' guarantors and after the majority of revenues become generated by the LEO business, both secured and unsecured debt will lose its value, since its guarantors would be likely worthless. We feel, however, that the odds that Canadian government will act like this are low.

Shortly, we do not have any long-term fundamental view on the business but find the company's debt attractive in the near-term.

Company & Industry Information

Telesat is one of the largest global satellite operators with 14 GEO satellites with ~7 years average expected remaining commercial life of satellite fleet. It is generated over 80% of its sales in North America, with approximately equal sales distribution between the broadcast and the enterprise segment.



Historically, revenues have been highly predictable, with the backlog accounting for 80% of sales in 2018; for 83% in 2019 and 86% in 2020. To be fair, backlog has been gradually declining from $2.4bn at Q2 2021 to $2.1bn at the end of 2021.

Despite declining sales and backlog through the industry, there are expectations that the growth in global broadband demand will exceed the pace of new capacity. Global data traffic is expected to grow from 255 exabyte in 2021 to 838 exabyte in 2027 – CAGR of 22%. Moreover, most applications require low latency, which will be provided by LEO satellites. GEO satellites sit permanently above a set location on earth and are located ~35,800km above the equator. The large distance from earth means that only 3 satellites are required to cover the whole planet, although with weak polar coverage. LEO satellites sit 500km- 1,500km above earth, which means that a large number of satellites are required to cover the planet. Satellite life for LEOs is short (5-8 years), compared to 15-20 years life of GEOs. In the meantime, cost of LEOs is lower, compared to the one of GEOs.

Transmission by GEOs implies high latency, which is negative when dealing with real time applications. However, in situations when date transfer occurs mainly in one direction (web browsing, video streaming, etc.), capacity is more important than latency. As a result, GEOs will likely continue to be important for transferring large volumes of information, rather than providing real-time Internet applications. GEO sales are declining but declining very slow, and GEO EBITDA margins are still very high…

	GEO (36,000km)	MEO (8,000km)	LEO (1,000km)
Latency	Medium (700m/s)	Low (150m/s)	Very low (50m/s)
Network size for global services	3 satellites – 99% coverage	6 satellites – 96% coverage	1000s of satellites
Data gateways required	Few, fixed	Several, flexible	Numerous, local
Technology readiness level	Proven deployable	Proven deployable	Still in development
Cost to deploy network	$1.0bn - $1.5bn	$1.5bn	$5bn - $15bn
Satellite design life	15 years	12 years	5-7 years

The company believes that the target global LEO market by 2025 will be at least $430bn. Telesat hopes to capture 1% of this sales annually and to generate margins comparable to current. The Lightspeed LEO project was originally announced a couple of years ago and included the launch of 298 satellites with the cost of ~$5.0bn. Ever since, the cost estimates have grown to ~$6.5bn. It is expected to have more network capacity than all GEO satellites combined. Moreover, Telesat's CEO estimates that ~25% of the existing GEO business will be served better from new satellites in LEO.

The Lightspeed project will compete with SpaceX Starlink. Both companies started their LEO projects approximately at the same time. Both companies launched their prototype satellites in 2017-2018. Telesat plans to launch 78 polar-orbit satellites at an altitude of 1,015 km and 220 inclined-orbit satellites at 1,325 km, while SpaceX's first phase is 4,408 satellites between 540 and 570 km altitude and inclinations from 53 to 97.6 degrees. SpaceX has permission to launch 12,000 satellites and has applied for 30,000 more, and Telesat has applied to launch 1,600 more satellites if things go well. The mass of Telesat's satellite will be around 700 kg and SpaceX satellites are around 269 kg. Telesat's satellites are larger because they do more—process inter-satellite and satellite to ground data at high rates, adapt to dynamically changing customer requirements, and have multiple thrusters and control systems for de-orbiting a failed satellite.

Since Telesat satellites will be more expensive to build and launch, they are designing them for a ten-year life compared to five years for SpaceX. SpaceX per-satellite manufacturing and launch costs will be much lower than those of Telesat, but it will cost more to make and launch 12,000 satellites than it will cost Telesat to make and launch 298. That being said, SpaceX will have the opportunity to update its technology more frequently and will have the cost advantage of in-house, high-volume mass production.

Telesat will have far fewer customers but will offer guaranteed service-level contracts with speeds up to 7.5 Gbps to a single terminal or 20 Gbps to a hotspot. They will be able to dynamically configure their service—for example, requiring different performance during the day or night or increasing airport capacity during the holiday travel seasons—which will require a software-defined network operating system. (At one time, they had agreed to use the operating system Google had developed for Project Loon, but Loon was terminated and the network operating system is being designed by Thales Alenia Space, the prime contractor).

Revenue	Q1 2019	Q2 2019	Q3 2019	Q4 2019	2019	Q1 2020	Q2 2020	Q3 2020	Q4 2020	2020	Q1 2021	Q2 2021	Q3 2021	Q4 2021	2021
Broadcast	$113,187	$114,802	$113,431	$103,058	$444,478	$101,623	$104,929	$103,221	$101,634	$411,407	$98,953	$96,868	$97,408	$97,586	$390,815
Change						*-10.2%*	*-8.6%*	*-9.0%*	*-1.4%*	*-7.4%*	*-2.6%*	*-7.7%*	*-5.6%*	*-4.0%*	*-5.0%*
Enterprise	$104,518	$110,388	$119,480	$110,346	$444,732	$102,129	$98,018	$93,487	$96,062	$389,696	$88,622	$87,927	$91,126	$86,451	$354,126
Change						*-2.3%*	*-11.2%*	*-21.8%*	*-12.9%*	*-12.4%*	*-13.2%*	*-10.3%*	*-2.5%*	*-10.0%*	*-9.1%*
Consulting & Other	$4,608	$6,109	$4,206	$6,760	$21,683	$4,921	$4,887	$5,345	$4,212	$19,365	2,917	3,093	$3,801	$3,460	$13,271
Change						*6.8%*	*-20.0%*	*27.1%*	*-37.7%*	*-10.7%*	*-40.7%*	*-36.7%*	*-28.9%*	*-17.9%*	*-31.5%*
Total	$222,313	$231,299	$237,117	$220,164	$910,893	$208,673	$207,834	$202,053	$201,908	$820,468	$190,492	$187,888	$192,335	$187,497	$758,212

Canada	$102,410	$99,405	$100,737	$92,683	$395,235	$92,685	$87,752	$89,625	$92,877	$362,939	$87,771	$82,672	$78,589	$81,800	$330,832
Change						*-9.5%*	*-11.7%*	*-11.0%*	*0.2%*	*-8.2%*	*-5.3%*	*-5.8%*	*-12.3%*	*-11.9%*	*-8.8%*
U.S.	$82,508	$85,086	$83,305	$78,735	$329,634	$75,928	$80,848	$76,767	$73,890	$307,433	$70,162	$69,259	$77,856	$75,197	$292,474
Change						*-8.0%*	*-5.0%*	*-7.8%*	*-6.2%*	*-6.7%*	*-7.6%*	*-14.3%*	*1.4%*	*1.8%*	*-4.9%*
EMEA	$9,578	$18,451	$11,209	$11,673	$50,911	$12,561	$11,201	$10,522	$10,426	$44,710	$9,447	$9,097	$14,279	$7,999	$40,822
Change						*31.1%*	*-39.3%*	*-6.1%*	*-10.7%*	*-12.2%*	*-24.8%*	*-18.8%*	*35.7%*	*-23.3%*	*-8.7%*
LATAM	$18,599	$18,760	$17,548	$18,213	$73,120	$17,402	$16,828	$15,006	$14,788	$64,024	$14,677	$14,002	$13,242	$13,897	$55,818
Change						*-6.4%*	*-10.3%*	*-14.5%*	*-18.8%*	*-12.4%*	*-15.7%*	*-16.8%*	*-11.8%*	*-6.0%*	*-12.8%*
Asia & Australia	$9,218	$9,597	$24,318	$18,860	$61,993	$10,097	$11,205	$10,133	$9,927	$41,362	$8,435	$12,858	$8,369	$8,604	$38,266
Change						*9.5%*	*16.8%*	*-58.3%*	*-47.4%*	*-33.3%*	*-16.5%*	*14.8%*	*-17.4%*	*-13.3%*	*-7.5%*
Total	$222,313	$231,299	$237,117	$220,164	$910,893	$208,673	$207,834	$202,053	$201,908	$820,468	$190,492	$187,888	$192,335	$187,497	$758,212
Change						*-6.1%*	*-10.1%*	*-14.8%*	*-8.3%*	*-9.9%*	*-8.7%*	*-9.6%*	*-4.8%*	*-7.1%*	*-7.6%*

Telesat (CAD$)	2017	2018	2019	Q1 2020	Q2 2020	Q3 2020	Q4 2020	2020	Q1 2021	Q2 2021	Q3 2021	Q4 2021	2021
Total Net Revenue	927,407	902,932	910,893	208,673	207,834	202,053	201,908	820,468	190,492	187,888	192,335	187,497	758,212
Growth Y/Y		*-2.6%*	*0.9%*	*-6.1%*	*-10.1%*	*-14.8%*	*-14.8%*	*272.7%*	*-8.7%*	*-9.6%*	*-4.8%*	*-7.2%*	*275.5%*
Opex	187,687	185,827	165,499	45,476	46,051	42,185	46,562	180,274	39,954	57,276	49,691	87,133	234,054
%-ge of sales	*20.2%*	*20.6%*	*18.2%*	*21.8%*	*22.2%*	*20.9%*	*23.1%*	*22.0%*	*21.0%*	*30.5%*	*25.8%*	*46.5%*	*30.9%*
Adjustments to EBITDA	($43,033)	($56,896)	($84,268)	($12,546)	($13,440)	($12,422)	($10,948)	($49,356)	($18,778)	$4,468	$2,260	$91,584	$79,534
Cash EBITDA	696,687	660,209	661,126	150,651	148,343	147,446	144,398	590,838	131,760	135,080	144,904	191,948	603,692
EBITDA Margin	*75.1%*	*73.1%*	*72.6%*	*72.2%*	*71.4%*	*73.0%*	*71.5%*	*72.0%*	*69.2%*	*71.9%*	*75.3%*	*102.4%*	*79.6%*
Company's Adj. EBITDA	757,123	751,894	762,689	166,152	164,337	162,395	160,471	653,355	152,410	148,777	162,395	139,722	603,304
Liquidity													
EBITDA	696,687	660,209	661,126	150,651	148,343	147,446	144,398	590,838	131,760	135,080	144,904	191,948	603,692
Capex	(10,616)	(15,997)	(8,345)	(647)	(8,475)	(4,113)	(3,825)	(17,060)	(3,708)	(9,119)	(14,375)	(7,058)	(34,260)
Acquisitions, divestitures	(153,997)	(87,310)	(31,265)	(893)	(9)	(7,032)	(67,998)	(75,932)	(16,746)	(61,696)	(18,689)	(141,472)	(238,603)
Interest Expense	(195,248)	(176,417)	(176,112)	(33,759)	(62,174)	(24,643)	(59,396)	(179,972)	(18,453)	(50,626)	(18,134)	(67,220)	(154,433)
Income Taxes	(62,991)	(106,308)	(95,455)	(10,906)	(59)	(24,256)	(18,222)	(53,443)	(30,635)	(22,533)	(18,476)	(22,598)	(94,242)
Change in Working Capitlal	48,252	88,813	(13,942)	2,524	(47,406)	53,928	5,972	15,018	16,790	(7,595)	(11,948)	(55,872)	(58,625)
Free Cash Flow	322,087	362,990	336,007	106,970	30,220	141,330	929	279,449	79,008	(16,489)	63,282	(102,272)	23,529
Cash flow from operations	486,700	466,297	375,617	108,510	38,704	152,475	72,752	372,441	99,462	54,326	96,346	46,258	296,392
Cash flow from investments	(164,613)	(103,307)	(39,610)	(1,540)	(8,484)	(11,145)	(71,823)	(92,992)	(20,454)	(70,815)	(33,064)	(148,530)	(272,863)
Cash flow from financing	(625,448)	(73,602)	(77,218)	70,478	(47,617)	(29,382)	(481,772)	(488,293)	(9,619)	594,821	21,408	(1,370)	605,240
Total cash flow	(303,361)	289,388	258,789	177,448	(17,397)	111,948	(480,843)	(208,844)	69,389	578,332	84,690	(103,642)	628,769

Telesat (CAD$)	2017	2018	2019	Q1 2020	Q2 2020	Q3 2020	Q4 2020	2020	Q1 2021	Q2 2021	Q3 2021	Q4 2021	2021
Balance Sheet													
Cash	479,045	768,433	1,027,222	1,204,670	1,187,273	1,242,315	818,378	818,378	883,091	1,466,099	1,558,638	1,449,593	1,449,593
Accounts Receivable	64,986	45,631	64,062	61,497	73,051	61,136	51,928	51,928	43,593	50,580	55,985	122,698	122,698
Days Accounts Rec.	*25.2*	*18.2*	*25.3*	*26.8*	*32.0*	*27.5*	*23.4*	*22.8*	*20.8*	*24.5*	*26.5*	*59.6*	*58.3*
Other Current Assets	10,940	35,160	43,934	39,389	44,817	13,216	23,309	23,309	26,798	28,813	38,577	45,144	45,144
Days other assets	*4.2*	*14.0*	*17.4*	*17.2*	*19.6*	*6.0*	*10.5*	*10.2*	*12.8*	*14.0*	*18.3*	*21.9*	*21.4*
Accounts Payable	37,919	30,659	26,247	32,327	24,559	21,992	30,091	30,091	46,733	29,848	33,508	54,628	54,628
Days Accounts Payable	*72.7*	*59.4*	*57.1*	*64.7*	*48.5*	*47.4*	*58.8*	*60.1*	*106.4*	*47.4*	*61.4*	*57.1*	*84.0*
Accrued Liabilities	103,679	139,675	110,596	143,475	123,379	155,034	132,035	132,035	147,440	129,167	154,727	127,327	127,327
Days Accrued Liabilities	*198.9*	*270.6*	*240.6*	*283.9*	*241.1*	*330.8*	*255.2*	*263.7*	*332.1*	*203.0*	*280.2*	*131.5*	*195.8*
Debt													
Total Debt	3,543,377	3,724,228	3,712,799	4,012,618	3,867,564	3,788,093	3,187,152	3,187,152	3,146,384	3,720,372	3,805,313	3,792,597	3,792,597
Net Debt	3,064,332	2,955,795	2,685,577	2,807,948	2,680,291	2,545,778	2,368,774	2,368,774	2,263,293	2,254,273	2,246,675	2,343,004	2,343,004
LTM EBITDA	696,687	660,209	661,126	652,619	630,873	605,541	590,838	590,838	571,947	558,684	556,142	603,692	603,692
LTM Interest Expense, cash	195,248	176,417	176,112	178,551	178,948	171,944	179,972	179,972	164,666	153,118	146,609	154,433	154,433
LTM Capex	10,616	15,997	8,345	5,777	12,878	15,203	21,292	17,060	20,121	20,765	31,027	36,945	34,260
<u>Ratios</u>													
Leverage	5.1x	5.6x	5.6x	6.1x	6.1x	6.3x	5.4x	5.4x	5.5x	6.7x	6.8x	6.3x	6.3x
Net Leverage (net of excess)	4.4x	4.5x	4.1x	4.3x	4.2x	4.2x	4.0x	4.0x	4.0x	4.0x	4.0x	3.9x	3.9x
EBITDA / LTM Interest Expe	3.6x	3.7x	3.8x	3.7x	3.5x	3.5x	3.3x	3.3x	3.5x	3.6x	3.8x	3.9x	3.9x
(LTM EBITDA - LTM Capex	3.5x	3.7x	3.7x	3.6x	3.5x	3.4x	3.2x	3.2x	3.4x	3.5x	3.6x	3.7x	3.7x
WC	(65,672)	(89,543)	(28,847)	(74,916)	(30,070)	(102,674)	(86,889)	(86,889)	(123,782)	(79,622)	(93,673)	(14,113)	(14,113)
Changes in WC formula		23,871	(60,696)	46,069	(44,846)	72,604	(15,785)	58,042	36,893	(44,160)	14,051	(79,560)	(72,776)
Changes in WC actual		88,813	(13,942)	2,524	(47,406)	53,928	5,972	15,018	16,790	(7,595)	(11,948)	(55,872)	(58,625)

SpaceX is not the only competitor of Telesat. While SpaceX is mainly focused on consumers, English OneWeb is also focused on non-consumers, similar to Telesat. Additionally, we have Amazon project Kuiper also likely focused on consumers and China SatNet with ambitious plans to launch close to 13,000 satellites. Due to supply chain problems and inflationary pressure, Telesat may cut the size of its fleet by as much as 100 satellites or will raise more money. Schedules have slipped and now the company plans to launch the satellites in 2025 – 3 years after the close competitor One Web hopes to begin the service.

As you can see from charts with financial performance above, Telesat is generating free cash flow. Its adjusted EBITDA more or less matches our cash flow EBITDA. It is projecting $535mm of adjusted EBITDA and ~$110mm of Capex in 2022, which implies that the company should generate close to $300mm of free cash flow before changes in working capital.

CAD$	2017	2018	2019	2020	2021	2022e
Sales	$927	$903	$911	$820	$758	$730
Changes		*-2.6%*	*0.9%*	*-9.9%*	*-7.6%*	*-3.7%*
Cash EBITDA	$697	$660	$661	$591	$604	$535
Adjusted EBITDA	$757	$752	$763	$653	$603	$535
Margin	*81.6%*	*83.3%*	*83.7%*	*79.6%*	*79.6%*	*73.3%*

Telesat had $1.45bn of cash at the end of 2021, including over $470mm of unrestricted cash. It is likely that the threat of underperformance is low in 2022. We believe that the company will dedicate a decent portion of its unrestricted cash to market-based liability management transactions.

Non- Guarantors	2019	2020	2021
Revenue	$0	$438	$8,157
Opex	$7,677	$26,098	$29,675
Adjustments to cash EBITDA			
Cash EBITDA	($7,677)	($25,660)	($21,518)
Margin		*-5858.4%*	*-263.8%*
Cash		$675,631	$978,572
CF from operations	($5,532)	$2,574	($53,651)
CF from investments	($27,503)	($76,249)	($266,393)
CF from financing	$357,918	$264,932	$641,512

To materialize the ambitious Lightspeed project, Telesat needs $6.5bn of financing. And it looks like the financing has been lined up:

	(billions of CAD$)	
Current cash on balance sheet	$1.4	Actual
Government of Canda Investment	$1.4	Term Sheet in Place
Government of Quebec Investment	$0.4	MOU in Place
U.S. C-Band Incentive Payments	$0.4	Confirmed
Other government investments	$0.1	Confirmed
Expected export credit financings	$2.8	Pending
Total	$6.5	

Balance Sheet Considerations

Coupon	Maturity	USD	Face Value	*Market Price*	Market Price	Leverage	Cash interest	*YTM*
2.53%	6-Dec-24	Revolver - size $CAD200mm	$0	*100.0%*	$0			
L+2.75%	6-Dec-26	Term Loan B	$1,553	*76.0%*	$1,180		$44	*9.7%*
5.625%	6-Dec-26	1st-lien secured notes	$500	*76.0%*	$380		$28	*12.5%*
4.875%	1-Jun-27	Sr. Secured notes	$400	*75.0%*	$300		$20	*11.4%*
		Cash	$1,141		$1,141		$92	
		Net 1st-lien debt	$1,311		$719	1.5x		
6.500%	15-Oct-27	Sr. Unsecured notes	$550	*51.0%*	$281		$63	*22.3%*
		Total Debt	$3,003					
		Total Net Debt	$1,861		$999	3.3x		
		Common equity shares	11.9	$22.92	$273			
		LTM cash EBITDA	$475					

CAD/USD	**1.27**
1st lien debt covenant	5.75x

Tested quarterly when the revolver is drawn more than 35% of its size

No more debt if the toal leverage is above **4.50x**

We think that the damage caused by the market fear of some sort of SPV financing is overdone. We feel that it makes perfect sense to be long on both unsecured and secured debt. We feel that while the complete understanding of all industry drivers and the probability of the successful execution of the business plan is up in the air, one thing is totally clear at this point – cash flow generation will continue in the near-term and Telesat will use cash on its balance sheet to buy back the debt in the open market. Telesat is a relatively poorly covered name, and we think that this lack of the market transparency partially explains the mere fact of existence of this opportunity. We think that the transition between GEO and LEO revenues will not start any time soon, and the threat of the credit quality decline for the current debt is mythical. We feel that the term loan is also attractive for all CLOs.

Disclosure Regarding Research Report