

LORAL SPACE & COMMUNICATIONS INC.  
Form 10-K  
March 18, 2019  
Table of Contents

UNITED STATES

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

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Form 10 K

ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE  
ACT OF 1934

FOR THE FISCAL YEAR ENDED DECEMBER 31, 2018

OR

TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF  
1934

Commission file number 1 14180

LORAL SPACE & COMMUNICATIONS INC.

(Exact name of registrant specified in the charter)

Jurisdiction of incorporation: Delaware

IRS identification number: 87 0748324

600 Fifth Avenue

New York, New York 10020

(Address of principal executive offices)

Telephone: (212) 697 1105

(Registrant's telephone number, including area code)

Securities registered pursuant to Section 12(b) of the Act:

Title of each class	Name of each exchange on which registered
Common stock, \$.01 par value	NASDAQ

Securities registered pursuant to Section 12(g) of the Act:

Indicate by check mark if the registrant is well-known seasoned issuer, as defined in Rule 405 of the Securities Act.  
Yes No

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. Yes No

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes No

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§ 232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes No

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K (§ 229.405 of this chapter) is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10 K or any amendment to this Form 10 K.  
Yes No

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company" and "emerging growth company" in Rule 12b 2 of the Exchange Act. (Check one):

Large accelerated filer Accelerated filer Non-accelerated filer Smaller reporting company

Emerging growth company

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act.

Indicate by check mark whether the registrant is a shell company (as defined in Exchange Act Rule 12b 2 of the Act).  
Yes No

As of June 30, 2018, the aggregate market value of the common stock, the only common equity of the registrant currently issued and outstanding, held by non-affiliates of the registrant was approximately \$478,430,108

At March 11, 2019, 21,427,078 shares of the registrant's voting common stock and 9,505,673 shares of the registrant's non-voting common stock were outstanding.

#### DOCUMENTS INCORPORATED BY REFERENCE

Portions of the Registrant's Proxy Statement for its 2019 Annual Meeting of Stockholders, which is to be filed subsequent to the date hereof, are incorporated by reference into Part III of this Annual Report on Form 10 K.



Table of Contents

LORAL SPACE AND COMMUNICATIONS INC.

INDEX TO ANNUAL REPORT ON FORM 10 K

For the Year Ended December 31, 2018

PART I

<u>Item 1 Business</u>	3
<u>Item 1A Risk Factors</u>	17
<u>Item 1B Unresolved Staff Comments</u>	37
<u>Item 2 Properties</u>	37
<u>Item 3 Legal Proceedings</u>	38
<u>Item 4 Mine Safety Disclosures</u>	38

PART II

<u>Item 5 Market for Registrant’s Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities</u>	39
<u>Item 7 Management’s Discussion and Analysis of Financial Condition and Results of Operations</u>	41
<u>Item 8 Financial Statements and Supplementary Data</u>	57
<u>Item 9 Changes in and Disagreements with Accountants on Accounting and Financial Disclosure</u>	57
<u>Item 9A Controls and Procedures</u>	57
<u>Item 9B Other Information</u>	60

PART III

<u>Item 10 Directors, Executive Officers and Corporate Governance</u>	60
<u>Item 11 Executive Compensation</u>	60
<u>Item 12 Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters</u>	60
<u>Item 13 Certain Relationships and Related Transactions, and Director Independence</u>	60
<u>Item 14 Principal Accountant Fees and Services</u>	60

PART IV

Item 15 Exhibits and Financial Statement Schedule

61

Signatures

67

2

---

Table of Contents

PART I

Item 1. Business

THE COMPANY

Overview

Loral Space & Communications Inc., together with its subsidiaries (“Loral,” the “Company,” “we,” “our” and “us”), is a leading satellite communications company engaged, through our ownership interests in affiliates, in satellite-based communications services.

Satellite Services

Loral has one operating segment consisting of satellite-based communications services. Loral participates in satellite services operations primarily through its ownership interest in Telesat Canada (“Telesat”), a leading global satellite operator. Telesat provides its satellite and communication services from a fleet of satellites that occupy Canadian and other orbital locations. Loral held a 62.7% economic interest and a 32.6% voting interest in Telesat as of December 31, 2018.

Telesat owns and leases a satellite fleet that operates in geostationary orbit approximately 22,000 miles above the equator. In this orbit, satellites remain in a fixed position relative to points on the earth’s surface and provide reliable, high-bandwidth services anywhere in their coverage areas, serving as the backbone for many forms of telecommunications. Telesat is also developing a global constellation of low earth orbit (“LEO”) satellites. LEO satellites operate in a circular orbit around the earth with an altitude typically between 500 and 870 miles. Unlike geostationary satellites that operate in a fixed orbital location above the equator, LEO satellites travel around the earth at high velocities requiring antennas on the ground to track their movement. LEO satellite systems have the potential to offer a number of advantages over geostationary satellites to meet growing requirements for broadband services, both consumer and commercial, by providing increased data speeds and capacity, global coverage, and latency on par with or potentially better than terrestrial services.

At December 31, 2018, Telesat, with approximately \$2.7 billion of backlog, provided satellite services to customers from its fleet of 17 in-orbit geostationary satellites, including Telstar 18 VANTAGE and Telstar 19 VANTAGE which were successfully launched in the third quarter of 2018. Telesat also owns the Canadian Ka-band payload on the ViaSat 1 satellite and manages the operations of additional satellites for third parties. In January 2018, Telesat launched a Ka-band satellite into low earth orbit as part of its plan to deploy a high capacity LEO constellation that is expected to deliver low latency, fiber-like broadband to commercial and government users worldwide.

Telesat provides video distribution and direct-to-home (“DTH”) video, as well as end-to-end communications services using both satellite and hybrid satellite-ground networks.

Telesat Services

Telesat earns the majority of its revenues by providing satellite-based services to customers, who use these services for their own communications requirements or to provide services to customers further down the distribution chain for video and data services. Telesat also earns revenue by providing ground-based transmit and receive services, selling equipment, installing, managing and maintaining satellite networks, and providing consulting services in the field of

satellite communications. Telesat categorizes its revenues into: Broadcast, Enterprise, and Consulting and Other.

#### Broadcast

Telesat's broadcast services business provided approximately 50% of its revenue for the year ended December 31, 2018. These services include:

DTH: Both Canadian DTH service providers (Bell TV and Shaw Direct) use Telesat's satellites as a distribution platform for their services, delivering television programming, audio and information channels directly to customers' homes. In addition, Telesat's satellites are used by EchoStar/DISH Network for DTH services in the United States.

## Table of Contents

**Video distribution and contribution:** Broadcasters, cable networks and DTH service providers use Telesat satellites for the full-time transmission of television programming. Additionally, Telesat provides certain broadcasters and DTH service providers bundled value-added services that include satellite capacity, digital encoding of video channels, authorization services and uplinking and downlinking services to and from Telesat satellites and earth station facilities.

**Occasional use services:** Occasional use services consist of satellite transmission services for the timely broadcast of video news, sports and live event coverage on a short-term basis enabling broadcasters to conduct on-the-scene transmissions using small, portable antennas.

### Enterprise

Telesat's enterprise services provided approximately 48% of its revenue for the year ended December 31, 2018. These services include:

**Telecommunication carrier and integrator services:** Telesat provides satellite capacity and end-to-end services for data and voice transmission to telecommunications carriers and integrators located throughout the world. These services include space segment services and terrestrial facilities for broadband, internet backhaul, cellular backhaul and services such as rural telephony to telecommunications carriers and network services integrators around the world.

**Government services:** The United States government is the largest single consumer of fixed satellite services in the world and a user of Telesat's international satellites. Telesat provides services to the United States government through government service integrators, rather than directly to United States government agencies. Telesat is also a significant provider of satellite services to the Canadian government.

**Broadband services:** Telesat provides Ka-band satellite capacity to customers in Canada, primarily to Bell Canada subsidiary Northwestel, which uses it to enhance broadband connectivity for all 25 communities in Nunavut, Canada's northernmost territory and to Xplornet Communications Inc., which uses it to provide two-way broadband internet services and in the United States to ViaSat, Inc. ("ViaSat"), which uses it to provide similar services. Telesat also provides Ka-band and Ku-band satellite capacity to Hughes Network Systems LLC ("HNS"), which uses it to provide two-way broadband internet services in South America.

**Resource services:** Telesat provides communications services to geographically diverse locations, both on and off shore, for the oil and gas and mining industries.

**Maritime and aeronautical services:** Telesat is increasingly providing satellite capacity to customers serving the growing maritime and aeronautical markets bringing broadband communications services to commercial airplanes and vessels.

**Retail services:** Telesat operates VSAT and hybrid VSAT/terrestrial networks in Canada providing end-to-end services including installation and maintenance of the end user terminal, maintenance of the VSAT hub and provision of satellite capacity. These networks include the support of point-of-sale and other applications at thousands of retail petroleum sites.

**Satellite operator services:** Telesat provides services to other satellite operators in the form of partial channel satellite capacity, full transponder satellite capacity and, on occasion, the relocation and use of an entire satellite at a designated orbital location to preserve their spectrum rights.

### Consulting and Other



Telesat's consulting and other category provided approximately 2% of its revenues for the year ended December 31, 2018. Telesat's consulting operations allow it to realize operating efficiencies by leveraging Telesat's existing employees and the facility base dedicated to its core satellite communication business. With almost 50 years of engineering and technical experience, Telesat is a leading consultant in establishing, operating and upgrading satellite systems worldwide.

4

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## Table of Contents

### Competitive Strengths

Telesat's business is characterized by the following key competitive strengths:

#### Leading Global FSS Operator

Telesat is one of the world's leading fixed satellite services ("FSS") operators and the largest in Canada. It has a leading position as a provider of satellite services in the North American video distribution market. Telesat provides services to both of the major DTH providers in Canada, Bell TV and Shaw Direct, which together have approximately two million subscribers, as well as to EchoStar (DISH Network) in the United States, which has approximately 10.3 million subscribers. Its international satellites are well positioned to serve a number of growing markets and serve a range of important customers in those markets.

#### Blue Chip Customer Base

Telesat offers its broad suite of satellite services to more than 400 customers worldwide, which include some of the world's leading DTH service providers, ISPs, network services integrators, telecommunications carriers, corporations and government agencies. Over almost 50 years of operation, Telesat has established long-term, collaborative relationships with its customers and has developed a reputation for creating innovative solutions and providing services essential for its customers to reach their end users. Telesat's customers represent some of the strongest and most financially stable companies in their respective industries. A number of these customers have historically committed to long-term contracts for Telesat's services, which enhances the predictability of its future revenues and cash flows and supports its future growth.

#### Large Contracted Backlog and Young Satellite Fleet Underpin Anticipated Growth and High Revenue Visibility

Historically, Telesat has been able to generate strong cash flows from its operating activities due to the high operating margins in the satellite industry and its disciplined control of expenses. The stability of Telesat's cash flows is underpinned by its large revenue backlog. Telesat has been able to generate significant backlog by entering into long-term contracts with some of its customers, in some cases for all or substantially all of a satellite's orbital maneuver life. Historically, this has resulted in revenue from the satellite services business being fairly predictable.

Many of Telesat's satellites are relatively new and will not need to be replaced for a significant period of time, which defers replacement capital expenditures.

#### Portfolio of Orbital Real Estate

Telesat's satellites occupy highly attractive orbital locations that provide it with an advantageous position in the markets in which it operates due to the scarcity of available satellite spectrum and the strong neighborhoods Telesat has developed at these locations. Access to these orbital locations, coupled with the high capital intensity of the satellite industry, creates barriers to entry in those markets. Telesat is licensed by the Department of Innovation, Science and Economic Development Canada ("ISED") to occupy a number of key orbital locations that are well-suited to serve the Americas and support its leading position in North America. Telesat's international satellites also occupy highly desirable orbital locations that enable broad pan-regional service with interconnectivity between regions, making them attractive for both intra- and inter-regional services. Telesat has rights to additional spectrum, including at certain existing orbital locations.

Telesat also has rights to use Ka-band and V-band to operate a global LEO satellite constellation. LEO satellite systems have the potential to offer a number of advantages over geostationary satellites to meet growing requirements

for broadband services by providing increased data speeds and capacity, global coverage, and latency on par with or potentially better than terrestrial services. Telesat's first LEO satellite was launched in January 2018 and is being used to support live demonstrations of certain features of Telesat's LEO system design with existing Telesat customers and potential suppliers of Telesat LEO system hardware. These satellite leaders will be able to experience key advantages of Telesat's LEO system – including ultra-low latency and high speeds – and assess the role Telesat's constellation can play in their next-generation broadband networks.

5

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## Table of Contents

### Global Operations Provide Revenue Diversification and Economies of Scale

The combination of Telesat's North American broadcast and enterprise services businesses and Telesat's international business offers diversity in terms of both the customers and regions served as well as the services provided.

Moreover, as the operator of a fleet of 17 geostationary satellites plus multiple other satellites for third parties, Telesat has attained meaningful scale to allow it to leverage its relatively fixed cost base to achieve substantial operating margins.

### Business Strategy

Telesat's commitment to providing strong customer service and its focus on innovation and technical expertise has allowed it to successfully build its business to date. Building on its existing contractual revenue backlog, Telesat will continue to focus on increasing the utilization of its existing satellite capacity, maintaining its operating efficiency and, in a disciplined manner, using its strong cash flow to grow in-orbit satellite capacity and strengthen its business.

Telesat believes its satellite fleet offers a strong combination of existing backlog and available capacity that provides a solid foundation upon which it will seek to grow its revenue and cash flows. To achieve this growth, Telesat will seek to capture the anticipated increased demand for satellite services and capacity, particularly in the enterprise services market, from requirements such as maritime and aeronautical, government services and supporting carrier and enterprise networks.

Telesat will continue to focus on capturing the anticipated increase in worldwide demand for satellite services through a disciplined satellite expansion program that should drive incremental contracted backlog and cash flows, and further leverage its fixed cost structure.

In 2018, Telesat launched two new geostationary satellites:

Telstar 18 VANTAGE, a powerful, state-of-the-art, multi-mission satellite was successfully launched in September 2018 to replace Telstar 18 at 138° EL. This new satellite replaces and expands on Telesat's Telstar 18 satellite through extensive C-band capacity over Asia, Ku-band high throughput spot beams over Indonesia and Malaysia, and five additional regional Ku-band beams. Telstar 18 VANTAGE's innovative Ku-band payloads of high throughput spot beams and focused regional beams provide customers operating in Mongolia, Indochina, Indonesia, Australia and New Zealand and the Pacific Ocean with greater choice and flexibility in deploying high performing broadband networks. Telesat's long-standing partner at the 138° EL location, APT, will use 57.5% of the satellite's capacity in exchange for providing 57.5% of the capital for the satellite program.

Telstar 19 VANTAGE, a powerful, multi-mission, high throughput satellite was successfully launched in July 2018, bringing additional capacity to the 63° WL orbital location where Telesat operates its Telstar 14R/Estrela do Sul 2

satellite. The satellite offers a high degree of flexibility with coverage of Brazil, the Andean region, the Caribbean, the North Atlantic Ocean and Northern Canada. HNS has entered into a long-term contract for Telstar 19 VANTAGE Ka-band capacity to expand its broadband satellite services for consumers and businesses in South America. Telesat also has long term contracts for the entire Ka-band capacity of Telstar 19 VANTAGE over Northern Canada, including providing Bell Canada subsidiary Northwestel with the high throughput spot beam capacity required to enhance broadband capacity for all 25 communities in Nunavut, Canada's northernmost territory.

Telesat will continue to advance its LEO constellation plans. In January 2018, Telesat successfully launched its first LEO satellite, an important milestone in its development of a state-of-the-art, high capacity LEO constellation that will deliver transformative, fiber-like broadband to commercial and government users worldwide. This Phase 1 LEO satellite is now demonstrating certain features of Telesat's LEO system design, in particular the capability of the satellite and customer terminals to deliver a low-latency broadband experience. Telesat has installed ground infrastructure at its teleport in Allan Park in Canada to support testing with existing customers and potential suppliers of Telesat LEO system hardware who have been participating in trials since the second half of 2018. In July and August 2018, Telesat entered into agreements with two leading satellite manufacturing teams, Airbus Defence and Space and a consortium of Thales Alenia Space and Maxar Technologies, to further develop systems designs for Telesat's LEO constellation. The two teams will complete their preliminary designs, address key hardware and software development items, and perform a series of technical reviews. Later in 2019, Telesat expects to receive firm proposals for manufacture and launch support of Telesat's LEO satellites and deployment of the ground system infrastructure.

## Table of Contents

### Competition

Telesat is a leading global FSS operator in a highly competitive industry, and Telesat competes against other global, regional and national satellite operators and with providers of terrestrial-based communications services.

### Fixed Satellite Operators

Other global satellite operators are Intelsat S.A. (“Intelsat”), SES S.A. (“SES”), Eutelsat S.A. (“Eutelsat”) and Inmarsat. Telesat also competes with a number of nationally or regionally focused FSS operators around the world.

Intelsat, SES and Eutelsat are each substantially larger than Telesat in terms of both the number of satellites they have in-orbit as well as their revenues. Telesat believes that Intelsat and its subsidiaries and SES and its subsidiaries each have global fleets of over 50 satellites, and that Eutelsat and its subsidiaries have a fleet of almost 40 satellites. Due to their larger sizes, these operators may be able to take advantage of greater economies of scale, may be more attractive to customers, and may (depending on the specific satellite and orbital location in question) have greater flexibility to restore service to their customers in the event of a partial or total satellite failure. In addition, their larger sizes may enable them to devote more resources, both human and financial, to sales, operations, product development and strategic alliances and acquisitions.

Regional and domestic providers: Telesat also competes against regional FSS operators, including:

- in North America: Ciel, ViaSat, HNS/EchoStar, Hispasat and Arsat;
- in Europe, Middle East, Africa: Avanti, Arabsat, Es’hailsat, Nilesat, Gazprom, Hellas Sat, RSCC, Yahsat, Turksat and Spacecom;
- in Asia: AsiaSat, Measat, Thaicom, APT, PT Telkom, Optus, SKY Perfect JSAT and Asia Broadcast Satellite; and
- in Latin America: Star One, Arsat and Hispamar.

A number of other countries have domestic satellite systems against which Telesat competes in those markets.

The Canadian government opened Canadian satellite markets to foreign satellite operators as part of its 1998 World Trade Organization commitments to liberalize trade in basic telecommunications services. As of January 2019, approximately 90 non-Canadian licensed geostationary satellites and non-geostationary satellite constellations are listed as having been approved for use in Canada. Four of these geostationary satellites are Telesat satellites licensed by other administrations and one is a satellite on which Telesat owns the Canadian-coverage capacity.

In addition, the FSS and the mobile satellite services (“MSS”) sectors, which have historically served distinct customer requirements, are converging. As a result, Telesat faces competition from MSS operators that include Inmarsat, which offers a high throughput Ka-band service using a global constellation of four geostationary satellites. The growth in satellite service providers using or planning to use Ka-band, including Avanti Communications, SES/O3b, ViaSat, Eutelsat, HNS/Echostar, Inmarsat, SES, Yahsat and others, will result in increased competition.

Many of the new and replacement satellites expected to be deployed in the near term will be high throughput satellites or will include high throughput payloads. In addition, second generation high throughput satellite systems recently launched and in development purport to be capable of throughput that substantially exceeds the throughput of first generation high throughput satellites. This is expected to result in a significant increase in satellite capacity which may further increase competition.

Over the past few years, in addition to Telesat’s LEO constellation, a number of other global non-geostationary orbit (“NGSO”) satellite systems have been announced and are now in various stages of development. These include proposed systems from One Web, SpaceX, SES/O3b and LeoSat, among others. In addition, a number of other

non-terrestrial systems using drones or balloons have also been announced. As these new systems are deployed they may significantly increase the supply of services that will compete with Telesat's LEO constellation as well as traditional satellite services.

7

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Table of Contents

Terrestrial Service Providers

Providers of terrestrial-based communications services compete with satellite operators. Increasingly, in developed and developing countries alike, governments are providing funding and other incentives to encourage the expansion of terrestrial networks resulting in increased competition for satellite operators.

Consulting Services

The market for satellite consulting services is generally comprised of a few companies qualified to provide advice to governments, satellite operators, spacecraft manufacturers and other industry participants on a range of technical and commercial matters related to satellite communications and earth observation. Telesat's competitors are primarily United States and European-based companies.

Satellite Fleet & Ground Resources

Telesat's state-of-the art satellite fleet is comprised of 17 geostationary satellites offering global coverage with a concentration over the Americas. Telesat's Nimiq 1 and Nimiq 2 satellites are primarily used to provide short-term services to other operators who use the satellites at their designated orbital locations to preserve their spectrum rights.

In January 2018, Telesat launched a Ka-band satellite into low earth orbit as part of a plan to deploy a high capacity LEO constellation that is expected to deliver low latency, fiber-like broadband to commercial and government users worldwide.

Telesat operates an extensive ground infrastructure, including a satellite control center ("SCC") in Ottawa, Ontario, its main earth station and backup SCC at Allan Park, Ontario, nine earth stations throughout Canada, one teleport located in the United States and one in Brazil. These ground facilities are used for controlling Telesat's satellites and for the provision of end-to-end services to Telesat's customers.



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Table of Contents

The table below summarizes selected data relating to Telesat's owned in-orbit satellite capacity as of December 31, 2018:

	Orbital Location Regions Covered	Launch Date	Manufacturer's End-of-Service Life	Expected End-of- Orbital Maneuver Life(1)	Model
Anik F1	107.3°WL South America	November 2000	2016	2022	BSS702 (Boeing) E3000
Anik F1R	107.3° WL North America	September 2005	2020	2022	(EADS Astrium)
Anik F2	111.1° WL Canada, Continental United States	July 2004	2019	2027	BSS702 (Boeing) E3000
Anik F3	118.7° WL Canada, Continental United States	April 2007	2022	2026	(EADS Astrium)
Anik G1	107.3° WL Canada, South America	April 2013	2028	2039	SSL 1300 A2100 AX (Lockheed Martin)
Nimiq 1	Not Applicable (2)	May 1999	2011	2021(4)	A2100 AX (Lockheed Martin)
Nimiq 2	Not Applicable (2)	December 2002	2015	2024(5)	E3000 (EADS Astrium)
Nimiq 4	82° WL Canada 72.7° WL Canada, Continental United States	September 2008	2023	2027	SSL 1300
Nimiq 5	91.1° WL Canada	September 2009	2024	2035	SSL 1300
Nimiq 6	37.55° WL North and Central America, Europe, Africa and the maritime Atlantic Ocean region	May 2012	2027	2048	SSL 1300
Telstar 11N	109.2°WL Southern United States, South and Central America	February 2009	2024	2026	SSL 1300
Telstar 12	15°WL Eastern United States, SE Canada, Europe, Russia, Middle East, South Africa, portions of South and	October 1999	2012	2027(5)	SSL 1300
Telstar 12 VANTAGE		November 2015	2030	2032	E3000 (Airbus)

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Telstar 14R/ Estrela do Sul 2 Telstar 18(3)	Central America 63°WL Brazil and portions of Latin America, North America, Atlantic Ocean 138° EL India, South East Asia, China, Australia and Hawaii	May 2011	2026	2024	SSL 1300
Telstar 18 VANTAGE(6)	138° EL India, South East Asia, Indonesia/Malaysia, China, Australia/New Zealand, North Pacific and Hawaii	June 2004	2017	2022(5)	SSL 1300
Telstar 19 VANTAGE	63°WL Brazil and portions of Latin America, North America, Atlantic Ocean, Caribbean	September 2018	2033	2040	SSL 1300
LEO 1	NGSO polar	July 2018 January 2018	2033 2021	2036 2021	SSL 1300 SSTL

- (1) Telesat's current estimate of when each satellite will be decommissioned, taking account of anomalies and malfunctions the satellites have experienced to date and other factors such as remaining fuel levels, consumption rates and other available engineering data. These estimates are subject to change and it is possible that the actual orbital maneuver life of any of these satellites will be shorter than Telesat currently anticipates. Further, it is anticipated that the payload capacity of each satellite may be reduced prior to the estimated end of orbital maneuver life. For example, Telesat currently anticipates that it will need to commence the turndown of transponders on Anik F1 prior to the end of orbital maneuver life as a result of further degradation in available power.
- (2) Nimiq 1 and Nimiq 2 are currently located in non-Telesat orbital slots.
- (3) 54% of the transponders on the satellite are leased to APT (the "APT transponders"), through the end of life of the satellite in consideration for APT's funding a portion of the satellite's cost. This transaction was accounted for as a sales-type lease, because substantially all of the benefits and risks incident to the ownership of the leased transponders were transferred to APT. Telesat has agreed with APT among other things that, if Telesat is able to obtain the necessary approvals and licenses from the U.S. government under U.S. export laws, it would transfer title to the APT transponders on Telstar 18 to APT, as well as a corresponding interest in the elements on the satellite that are common to or shared by the APT transponders and the Telesat transponders. Telesat acquired two transponders from APT for an additional payment in August 2009.
- (4) Inclined orbit operations may be utilized to reach the projected End of Orbital Maneuver Life for Nimiq 1 in the event the satellite is relocated. The start of inclined orbit operations will be selected accordingly.
- (5) End-of-Orbital Maneuver Life for these satellites has been extended through inclined orbit operations which reduces fuel consumption through the elimination of north-south stationkeeping.



Table of Contents

(6) Telesat International Limited (“TIL”), a subsidiary of Telesat Canada, and APT have entered into agreements relating to the Telstar 18 VANTAGE satellite, which are accounted for as a joint operation, whereby TIL’s interest is 42.5%. In addition, Telesat has rights to satellite capacity on other satellites including the Ka-band Canadian payload consisting of nine user beams on ViaSat 1.

Telesat is currently evaluating mission extension services that have the potential to prolong the orbital maneuver lives of certain of its satellites. However, there can be no assurance that Telesat will contract for the use of these mission extension services or that, if it does so, the services will be successful.

## Satellite Services Performance(1)

Loral holds a 62.7% economic interest and a 32.6% voting interest in Telesat. We use the equity method of accounting for our investment in Telesat, and its results are not consolidated in our financial statements. Our share of the operating results from our investment in this company is included in equity in net (loss) income of affiliates in our consolidated statements of operations and our investment is included in investments in affiliates in our consolidated balance sheets (see Note 5 to the Loral consolidated financial statements).

	Year Ended December 31,	
	2018	2017
	(In thousands)	
Revenue:		
Total segment revenues	\$ 699,596	\$ 712,390
Affiliate eliminations(2)	(699,596)	(712,390)
Revenues from satellite services as reported	\$ —	\$ —
Operating income:		
Total segment operating income	\$ 357,321	\$ 370,562
Affiliate eliminations(2)	(357,321)	(370,562)
Operating income from satellite services after eliminations	\$ —	\$ —

(1) See Consolidated Operating Results in Management’s Discussion and Analysis of Financial Condition and Results of Operations for significant items that affect comparability between the periods presented.

(2) Affiliate eliminations represent the elimination of amounts attributable to Telesat which is reflected in our consolidated financial statements under the equity method of accounting.

Total Telesat assets were \$3.9 billion and \$4.1 billion as of December 31, 2018 and 2017, respectively. The change in total assets from December 31, 2017 to December 31, 2018 is primarily the result of the change in foreign exchange rates. Backlog was approximately \$2.7 billion and \$3.0 billion as of December 31, 2018 and 2017, respectively. The decrease in backlog is due to revenues recognized and exchange rate changes, partially offset by new orders. It is expected that approximately 20% of the backlog at December 31, 2018 will be recognized as revenue by Telesat in 2019.

## Table of Contents

### Other

We also own 56% of XTAR, LLC (“XTAR”), a joint venture between Loral and Hisdesat Servicios Estrategicos S.A. (“Hisdesat”) of Spain. We account for our ownership interest in XTAR under the equity method of accounting because we do not control certain of its significant operating decisions. XTAR owns and operates an X-band satellite, XTAR-EUR located at 29° EL, which entered service in March 2005. The satellite is designed to provide X-band communications services exclusively to United States, Spanish and allied government users throughout the satellite’s coverage area, including Europe, the Middle East and Asia. The government of Spain granted XTAR rights to an X-band license, normally reserved for government and military use, to develop a commercial business model for supplying X-band capacity in support of military, diplomatic and security communications requirements. XTAR also leases 7.2 72 MHz X-band transponders (subject to certain temporary reductions for 2018) on the Spainsat satellite located at 30° WL owned by Hisdesat, which entered commercial service in April 2006. These transponders, designated as XTAR-LANT, allow XTAR to provide its customers in the U.S. and abroad with additional X-band services and greater flexibility. XTAR currently has contracts to provide satellite telecommunication services to various agencies of the United States, Spanish and other European governments. For more information on XTAR see Note 5 to the Loral consolidated financial statements.

### REGULATION

Telesat is subject to regulation by government authorities in Canada, the United States and other countries in which it operates and is subject to the frequency coordination process of the International Telecommunication Union (“ITU”). Telesat’s ability to provide satellite services in a particular country or region is subject also to the technical constraints of its satellites, international coordination, local regulation including as it applies to securing landing rights and licensing requirements.

#### Canadian Regulatory Environment

Telesat was originally established by the government of Canada in 1969 under the Telesat Canada Act. As part of the Canadian government’s divestiture of its shares in Telesat, pursuant to the Telesat Canada Reorganization and Divestiture Act (1991), or the Telesat Divestiture Act, Telesat was continued on March 27, 1992 as a business corporation under the Canada Business Corporations Act, the Telesat Canada Act was repealed and the Canadian government sold its shares in Telesat. The Telesat Divestiture Act provides that no legislation relating to the solvency or winding-up of a corporation applies to Telesat and that its affairs cannot be wound up unless authorized by an Act of Parliament. In addition, Telesat and its shareholders and directors cannot apply for Telesat’s continuation in another jurisdiction or dissolution unless authorized by an Act of Parliament.

Telesat is a Canadian carrier under the Telecommunications Act (Canada), or the Telecom Act. The Telecom Act authorizes the Canadian Radio-Television and Telecommunications Commission (“CRTC”) to regulate various aspects of the provision of telecommunications services by Telesat and other telecommunications service providers. Telesat is currently not subject to detailed rate regulation; the CRTC has, however, retained its powers under the Telecom Act to impose price regulation or other regulatory measures on Telesat in the future, as necessary. In addition, Section 28(2) of the Telecom Act provides that the CRTC may allocate satellite capacity to particular broadcasting undertakings if it is satisfied that the allocation will further the implementation of the broadcasting policy for Canada. The exercise by the CRTC of its rights under section 28(2) of the Telecommunications Act could affect Telesat’s relationship with existing customers, which could have a material adverse effect on Telesat’s results of operations, business prospects and financial condition.

Telesat’s operations are also subject to regulation and licensing by ISED (formerly Industry Canada) pursuant to the Radiocommunication Act (Canada). ISED has the authority to issue spectrum and earth station licenses and establish

policies and standards related to the radio frequencies upon which Telesat's satellites and earth stations depend. The Minister responsible for ISED has broad discretion in exercising this authority to issue licenses, fix and amend conditions of licenses and to suspend or even revoke them. Some of the spectrum licenses under which Telesat operates the Anik and Nimiq satellites require Telesat to comply with research and development and other industrial and public benefit commitments, to pay annual spectrum license fees and to provide all-Canada satellite coverage.

## Table of Contents

ISED traditionally licensed satellite radio spectrum using a competitive licensing process. In 2012, ISED conducted a public consultation on the licensing framework for FSS and broadcast satellite services (“BSS”) in Canada. As a result of the consultation, changes in policy were announced in November 2013. Effective January 6, 2014, all FSS and BSS licenses are awarded to qualified applicants on a first-come, first-served basis and spectrum licenses have replaced radio licenses. The term of spectrum licenses is 20 years, with a high expectation of renewal. ISED may, however, issue licenses with a shorter term. Satellite and terrestrial operators are seeking additional spectrum to accommodate the expected growth in demand for broadband services and 5G networks. ISED is considering and may adopt new spectrum allocations for terrestrial services that require satellite operators to vacate or share spectrum and may limit the spectrum that is available for satellite services.

The Canadian government opened Canadian satellite markets to foreign satellite operators as part of its 1998 World Trade Organization (“WTO”) commitments to liberalize trade in basic telecommunications services, with the exception of DTH television services provided through FSS or DBS facilities. Satellite digital audio radio service markets were also closed to foreign entry until 2005. In September 2005, the Canadian government revised its satellite-use policy to permit the use of foreign-licensed satellites for digital audio radio services in Canada. Further liberalization of the policy may occur and could result in increased competition in Canadian satellite markets.

Since November 2000, pursuant to the CRTC’s Decision CRTC 2000 745, virtually all telecommunications service providers are required to pay contribution charges based on their Canadian telecommunications service revenues, minus certain deductions (e.g., terminal equipment sales and inter-carrier payments). The contribution rate varies from year to year. It was initially set at 4.5% of eligible revenues but was significantly reduced in subsequent years. The rate for 2018 was 0.54%, and an interim rate of 0.60% has been established by the CRTC for 2019.

## United States Regulatory Environment

The Federal Communications Commission (“FCC”) regulates the provision of satellite services to, from, or within the United States.

Telesat has chosen to operate its U.S. licensed satellites, Telstar 11N, Telstar 12 and Telstar 12 VANTAGE, on a non-common carrier basis. Consequently, it is not subject to rate regulation or other common carrier regulations enacted under the Communications Act of 1934. Telesat pays FCC filing fees in connection with its space station and earth station applications and annual fees to defray the FCC’s regulatory expenses. Annual and quarterly status reports must be filed with the Universal Service Administrative Company (“USAC”) covering interstate/international telecommunications revenues. Based on these reports, USAC assesses Telesat for contribution to the FCC’s Universal Service Fund (“USF”). Payments to the USF are made on a quarterly and annual basis. The USF contribution rate is adjusted quarterly and is proposed to be set at 20% for the first quarter of 2019. At the present time, the FCC does not assess USF contributions with respect to bare transponder capacity (i.e. agreements for space segment only). Telesat’s United States telecom revenues that are subject to USF contribution requirements are currently small and its USF payments are not material.

Telesat also owns and operates the portion of the ViaSat 1 satellite (115o WL) payload that is capable of providing service within Canada. The ViaSat 1 satellite is licensed by the United States.

The FCC currently grants geostationary-like satellite authorizations on a first-come, first-served basis to applicants which demonstrate that they are legally and technically qualified and that the public interest will be served by the grant. In contrast, applications for non-geostationary-like satellite authorizations are dealt with through processing rounds, initiated by public notice or the submission of a lead application. Under licensing and market access rules, a bond must be posted starting at \$1 million when a geostationary satellite or non-geostationary satellite constellation authorization is granted and escalating to up to \$3 million in the case of a geostationary satellite and \$5 million in the case of a non-geostationary satellite constellation. The entire amount of the bond may be forfeited if there is a failure to meet the FCC's milestones for the launch and commencement of operations of the geostationary satellite or the milestones for the deployment and operation of 50% of the satellites in a non-geostationary satellite constellation. According to current licensing rules, the FCC will issue new satellite licenses for an initial 15 year term and will provide a licensee with an "expectancy" that a subsequent license will be granted for the replacement of an authorized satellite using the same frequencies. At the end of the 15 year term, a satellite that has not been replaced, or that has been relocated to another orbital location following its replacement, may be allowed to continue operations for a limited period of time subject to certain restrictions. As in other jurisdictions, the FCC is considering and may adopt new spectrum allocations for terrestrial mobile broadband and 5G, including in bands that are currently allocated to satellite services. New spectrum allocations may require satellite operators to vacate or share spectrum and may limit the spectrum that is available for satellite services.



## Table of Contents

To facilitate the provision of FSS in C-, Ku-, Ka- and V-band frequencies in the United States market, foreign licensed operators can apply to have their satellites either placed on the FCC's Permitted Space Station List (for certain frequencies) or be granted a declaratory ruling (for other frequencies). The bond and milestone requirements for U.S.-licensed satellites apply equally to authorized foreign-licensed satellites. Telesat's Anik F1, Anik FIR, Anik F2, Anik F3, Telstar 14R/Estrela do Sul 2 and Telstar 19 VANTAGE satellites and Telesat's Ka- and V-band LEO constellations are currently authorized to serve the U.S. market in accordance with these procedures.

The United States made no WTO commitment to open its DTH, DBS or digital audio radio services to foreign competition, and instead indicated that provision of these services by foreign operators would be considered on a case-by-case basis, based on an evaluation of the effective competitive opportunities open to United States operators in the country in which the foreign satellite was licensed (i.e., an ECO-sat test) as well as other public interest criteria. While Canada currently does not satisfy the ECO-sat test in the case of DTH and DBS service, the FCC has found, in a number of cases, that provision of these services into the United States using Canadian-licensed satellites would provide significant public interest benefits and would therefore be allowed. In cases involving Telesat, United States service providers, Digital Broadband Applications Corp., DIRECTV and EchoStar, have all received FCC approval to access Canadian-authorized satellites under Telesat's direction and control in Canadian-licensed orbital locations to provide DTH-FSS or DBS service into the United States.

The approval of the FCC for the acquisition of our ownership interest in Telesat was conditioned upon compliance by Telesat with commitments made to the Department of Justice, the Federal Bureau of Investigation and the Department of Homeland Security relating to the availability of certain records and communications in the United States in response to lawful United States law enforcement requests for such access.

The export of United States-manufactured satellites and technical information related to satellites, earth station equipment and provision of services to certain countries are subject to State Department, Commerce Department and Treasury Department regulations.

In 1999, the United States State Department published amendments to the International Traffic in Arms Regulations ("ITAR") which included satellites on the list of items requiring export licenses. Effective November 2014, further amendments to the ITAR transferred jurisdiction of certain satellites and related technology to the Export Administration Regulations administered by the Commerce Department, which also impose license requirements in specified circumstances. These ITAR provisions may limit Telesat's access to certain technical information and may have a negative impact on Telesat's international consulting revenues.

### Regulation Outside Canada and the United States

The Brazilian national telecommunications agency, ANATEL, grants exploitation rights for Brazilian satellites to companies incorporated and existing in Brazil which participate in specific auctions conducted by ANATEL and which demonstrate that they are legally, technically and financially qualified and that the public interest will be served by the grant. ANATEL may also grant exploitation and landing rights for foreign satellites when the public interest is evidenced, provided that the applicant company provides certain specific technical information on the relevant satellite and appoints a legal representative in Brazil (i.e., a company incorporated and existing in Brazil). The landing rights of foreign satellites are granted to the owner of the space segment or the company which holds the right to operate it, in whole or in part, but the satellite capacity may only be sold or negotiated in Brazil through the local legal representative. In exploitation and landing rights of Brazilian and foreign satellites, the rights are granted on an onerous basis and are valid for 15 years for Brazilian satellites (renewable once for an additional 15 years) and up to 15 years for foreign satellites (renewable once for an additional equal period).

ANATEL has authorized Telesat, through its subsidiary, Telesat Brasil Capacidade de Satélites Ltda. (“TBCS”), to operate a Ku-band FSS satellite at the 63° WL orbital location. In December 2008, TBCS entered into a new 15 year Concession Agreement with ANATEL which obligates TBCS to operate the satellite in accordance with Brazilian telecommunications law and contains provisions to enable ANATEL to levy fines for failure to perform according to the Concession Agreement terms.

In May 2015, TBCS was the successful bidder in an ANATEL auction for Ka-Band and planned Ku-band frequency rights at the 63° WL orbital location, and the associated 15 year Concession Agreements were signed in March 2016. Telesat’s Estrela do Sul 2 and Telstar 19 VANTAGE satellites are located at 63° WL and make use of these frequency rights.

## Table of Contents

In addition, ANATEL has accredited TBCS as legal representative in Brazil of three non-Brazilian satellites; Telstar 12 VANTAGE, Anik F1 and Anik G1.

Telesat owns Telstar 18 and its replacement, Telstar 18 VANTAGE, which currently operate at the 138° EL orbital location under an agreement with APT. APT has been granted the right to use the C- and Ku-band frequencies at the 138° EL orbital location by The Kingdom of Tonga. APT is the direct interface with the Tonga regulatory bodies. Because Telesat gained access to this orbital location through APT, there is greater uncertainty with respect to its ability to maintain access to this orbital location and the frequencies. Telstar 18 VANTAGE also includes Ka-band frequencies that operate under rights provided to Telesat by the United Kingdom.

Telesat owns and operates the portion of the ViaSat 1 satellite (115° WL) payload that is capable of providing service within Canada. ViaSat 1 operates in accordance with a license granted by the FCC in the United States. However, by virtue of an intergovernmental arrangement between the United States and the United Kingdom, ViaSat 1 operates in accordance with ITU networks filed by the United Kingdom regulatory agency, OFCOM, on behalf of the Isle of Man. The Isle of Man is a British Crown Dependency and Isle of Man satellite frequency filings are filed with the ITU by OFCOM. ManSat Ltd. (“ManSat”) has been granted rights by the Isle of Man government to manage all aspects of Isle of Man satellite frequency filings. Both Telesat and ViaSat have a commercial relationship with ManSat. ViaSat and Telesat have agreed to cooperate in their dealings with ManSat with respect to the ViaSat 1 satellite for OFCOM and ITU purposes. The Ka-band and portions of the Ku-band frequencies on Telstar 12 VANTAGE, portions of the Ka-band frequencies on Telstar 18 VANTAGE and the Ka-band frequencies on Telstar 19 VANTAGE are also filed with the ITU by ManSat on behalf of Telesat.

## Landing Rights and Other Regulatory Requirements

Many countries regulate satellite transmission signals to, and for uplink signals from, their territory. Telesat has landing rights in major market countries worldwide. In many jurisdictions, landing rights are granted on a per satellite basis and applications must be made to secure landing rights on replacement satellites.

## International Regulatory Environment — International Telecommunication Union

The ITU, a specialized agency of the United Nations, is responsible for administering access by member states to frequencies in the radio portion of the electromagnetic spectrum. The ITU Radio Regulations set forth the process that member states must follow to secure rights for satellites to use frequencies and the obligations and restrictions that govern such use. The process includes, for example, a “first-come, first-served” system for gaining access to certain frequencies and time limits for bringing the frequencies into use. Other frequencies at specified orbital locations have been reserved in perpetuity for individual administrations’ use.

Canada, the United States and other member states have rights to use certain frequencies. Telesat has been authorized by its ITU filing administrators (Canada, USA, Brazil and United Kingdom) to use certain frequencies. In addition, through commercial arrangements, Telesat has the right to use certain frequencies for which the Kingdom of Tonga has the rights. Authorized frequencies include those already used by its current satellites, and additional frequencies at various geostationary orbital locations or in non-geostationary constellations that must be brought into use within specified time limits.

The ITU Radio Regulations govern the process used by satellite operators to coordinate their operations with other satellite operators to avoid harmful interference. Each member state is required to give notice of, coordinate, and register its proposed use of radio frequency assignments with the ITU. The filing and registration process is administered by the ITU Radiocommunications Bureau (the “ITU-BR”).



## Table of Contents

Once a member state has filed with the ITU its proposed use of frequencies, other member states inform that member state and the ITU-BR of any intended use that has the potential to cause interference to either existing operations, or operations that may occur in accordance with priority rights. The member states are then obligated to negotiate with each other in an effort to coordinate the proposed uses and resolve interference concerns. If all outstanding issues are resolved in accordance with the various procedures of the ITU Radio Regulations, the frequencies are entered into the ITU's Master Register ("MIFR"). Registered frequencies are entitled under international law to interference protection from subsequent or nonconforming uses.

Under the ITU Radio Regulations, a member state that places a satellite or any ground station into operation without completing coordination could be vulnerable to interference from other systems and may have to alter the operating parameters of its satellite or ground station if harmful interference occurs to other users already entered in the MIFR or that have priority rights.

The process of ITU filing and notification in the MIFR of frequencies spans a period of seven to eight years, or longer, depending upon the frequency band and the various provisions of the ITU Radio Regulations that may be invoked. Telesat's authorized frequencies are in various stages of the coordination and notification process. Many frequencies have completed the process and have been registered in the MIFR. In other cases, coordination is on-going so that entry into the MIFR is pending. This is typical for satellite operators. Depending upon the outcome of coordination discussions with other satellite operators Telesat may need to make concessions in terms of how a frequency may be used. This, in turn, could have a material adverse impact on Telesat's financial condition, as well as on the value of its business. The failure to reach an appropriate arrangement with such satellite operators may render it impossible to secure entry into the MIFR and result in substantial restrictions on the use and operations of Telesat's existing satellites. In the event disputes arise during the coordination process or thereafter, the ITU Radio Regulations set forth procedures for resolving disputes but do not contain a mandatory dispute resolution mechanism or an enforcement mechanism. Rather, the rules invite a consensual dispute resolution process for parties to reach a mutually acceptable agreement. Neither the rules nor international law provide a clear remedy for a party where this voluntary process fails.

The ITU is considering and may adopt at the World Radio Conference in November 2019, new international spectrum allocations to terrestrial mobile, satellite and other services. New international spectrum allocations may require satellite operators to vacate or share spectrum and may limit the spectrum that is available for satellite services. Although non-governmental entities, including Telesat, participate at the ITU, only national administrations have full standing as ITU members. Consequently, Telesat must ultimately rely on the administrations of Canada, the United States, Brazil, the United Kingdom and the Kingdom of Tonga to represent its interests, including submitting and coordinating the ITU satellite networks that provide frequency information within the ITU process described above.

Some of the international and domestic regulations governing NGSO satellites are undergoing revision or have yet to be established. Both Canada and the U.S. have recently adopted new deployment milestones for NGSO systems and the ITU is expected to adopt new deployment milestones for the maintenance of international NGSO filings at the World Radio Conference in November 2019. New international milestones could limit Telesat's ability to maintain international priority rights for its planned LEO constellation. In addition, while the international rules governing coordination between Ka-band NGSO satellite systems are established and rely on international filing date priority, the US has adopted a different approach to NGSO-NGSO coordination that requires band splitting if NGSO operators are unable to reach a coordination agreement. As a result, the amount of spectrum that may be available to Telesat's planned LEO constellation in the U.S. is uncertain. It is possible that other jurisdictions may adopt the U.S. approach to coordination between NGSO systems. Some of the spectrum utilized by Telesat's planned LEO constellation is also allocated to terrestrial fixed and mobile services and geostationary satellite services. While jurisdictions such as the U.S. have established rules for sharing the spectrum, many jurisdictions have yet to address this issue. Telesat's ability to use shared spectrum for its planned LEO constellation may be impacted by new rules or the absence of rules for

spectrum sharing.

15

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Table of Contents

PATENTS AND PROPRIETARY RIGHTS

As of December 31, 2018, Telesat owned 18 issued patents, five of which are in the United States. These patents expire between 2019 and 2032. Telesat also has several pending domestic and international patent applications.

There can be no assurance that any of the foregoing pending patent applications will be issued. Moreover, there can be no assurance that infringement of existing third party patents has not occurred or will not occur. Additionally, because the patent application process is confidential, there can be no assurance that third parties, including competitors, do not have patents pending that could result in issued patents which Telesat may infringe. In such event, Telesat may be restricted from continuing the infringing activities, which could adversely affect its business, or Telesat may be required to obtain a license from a patent holder and pay royalties, which would increase the cost of doing business.

RESEARCH AND DEVELOPMENT

Telesat’s research and development expenditures are incurred for the studies associated with advanced satellite system designs and experimentation and development of space, satellite and ground communications products. This includes the development of Telesat’s planned LEO constellation.

FOREIGN OPERATIONS

Telesat’s revenues from customers in Canada, the U.S. and other geographical regions, primarily Europe, Middle East and Africa and Latin America and Caribbean, for the years ended December 31, 2018 and 2017 are tabulated below:

	Year Ended December 31,	
	2018	2017
	(In thousands)	
Canada	\$ 323,630	\$ 319,379
United States	246,992	238,924
Others	128,974	154,087
	\$ 699,596	\$ 712,390

At December 31, 2018 and 2017, Telesat’s long-lived assets were located primarily in Canada, with the exception of in-orbit satellites. (see Item 1A – “Risk Factors – Telesat is subject to risks associated with doing business internationally.”)

EMPLOYEES

As of December 31, 2018, Loral had 20 full-time employees.

As of December 31, 2018, Telesat and its subsidiaries had approximately 387 full-time and part-time employees, approximately 3.4% of whom are subject to collective bargaining agreements. Telesat’s employee body is primarily comprised of professional engineering, sales and marketing staff, administrative staff and skilled technical workers. Telesat considers its employee relations to be good.

AVAILABLE INFORMATION

Our annual report on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K and amendments to those reports are available without charge on our web site, [www.loral.com](http://www.loral.com), as soon as reasonably practicable after they are electronically filed with or furnished to the Securities and Exchange Commission (“SEC”). Copies of these documents also are available in print, without charge, from Loral’s Investor Relations Department, 600 Fifth Avenue, New York, NY 10020. Loral’s web site is an inactive textual reference only, meaning that the information contained on the web site is not part of this report and is not incorporated in this report by reference.



Table of Contents

Item 1A. Risk Factors

I. Financial and Telesat Investment Risk Factors

Telesat's profitability may be adversely affected by swings in the global financial markets, which may have a material adverse effect on Telesat's customers and suppliers.

Swings in the global financial markets that include illiquidity, market volatility, changes in interest rates and currency exchange fluctuations can be difficult to predict and negatively affect the ability of certain customers to make payments when due. Such swings may materially and adversely affect us due to the potential insolvency of Telesat's suppliers and customers, inability of customers to obtain financing for their transponder leases, decreased customer demand, delays in supplier performance and contract terminations. Telesat's customers may not have access to capital or a willingness to spend capital on transponder leases, or their levels of cash liquidity with which to pay for transponder leases may be adversely affected. Access of Telesat's suppliers to capital and liquidity with which to maintain their inventories, production levels or product quality may be adversely affected, which could cause them to raise prices or cease operations. As a result, we may experience a material adverse effect on our business, results of operations and financial condition. These potential effects of swings in the global financial markets are difficult to forecast and mitigate.

Our equity investment in Telesat may be at risk because of Telesat's leverage.

At December 31, 2018, Telesat had outstanding indebtedness of \$2.8 billion, which matures in 2023 and 2024, and additional borrowing capacity of \$200 million under its revolving facility which matures in 2021. Approximately \$2.5 billion of this total borrowing capacity is secured by substantially all of the assets of Telesat. This indebtedness represents a significant amount of indebtedness for a company the size of Telesat. The agreements governing this indebtedness impose operating and financial restrictions on Telesat's activities. These restrictions on Telesat's ability to operate its business could seriously harm its business by, among other things, limiting its ability to take advantage of financing, merger and acquisition and other corporate opportunities, which could in time adversely affect the value of our investment in Telesat. Borrowings under Telesat's senior secured credit facilities are at variable rates of interest and expose Telesat to interest rate risk. Assuming all revolving loans are fully drawn, each quarter point change in interest rates would result in a \$4.4 million change in annual interest expense on indebtedness under the senior secured credit facilities. Telesat has entered into, and in the future it may enter into, interest rate swaps that involve the exchange of floating for fixed rate interest payments in order to reduce interest rate volatility. Telesat may not, however, maintain interest rate swaps with respect to all or any of its variable rate indebtedness, and any swaps Telesat enters into may not fully mitigate its interest rate risk, may prove disadvantageous or may create additional risks.

As of December 31, 2018, all of Telesat's outstanding debt was denominated in U.S. dollars. Changes in exchange rates impact the amount that Telesat pays in interest and may significantly increase the amount that Telesat is required to pay in Canadian dollar terms to redeem the indebtedness either at maturity, or earlier if redemption rights are exercised or other events occur which require Telesat to offer to purchase the indebtedness prior to maturity, and to repay funds drawn under its U.S. dollar denominated facility. Unfavorable exchange rate changes could affect Telesat's ability to repay or refinance this debt.

A breach of the covenants contained in any of Telesat's loan agreements, including without limitation, a failure to maintain the financial ratios required under such agreements, could result in an event of default. If an event of default were to occur, Telesat's lenders would be able to accelerate repayment of the related indebtedness, and it may also trigger a cross default under other Telesat indebtedness.



## Table of Contents

If Telesat is unable to repay or refinance its secured indebtedness when due (whether at the maturity date or upon acceleration as a result of a default), the lenders will have the right to proceed against the collateral granted to them to secure such indebtedness, which consists of substantially all of the assets of Telesat and its subsidiaries. Telesat's ability to make payments on, or repay or refinance, its debt, will depend largely upon its future operating performance and market conditions. Disruptions in the financial markets could make it more difficult to renew or extend Telesat's facilities at current commitment levels on similar terms or at all. In the event that Telesat is not able to service or refinance its indebtedness, there would be a material adverse effect on the fair value of our equity investment in Telesat.

Telesat's financial results and our U.S. dollar reporting of Telesat's financial results will be affected by volatility in the Canadian/U.S. dollar exchange rate.

Portions of Telesat's revenue and expenses and all of its debt are denominated in U.S. dollars and changes in the U.S. dollar/Canadian dollar exchange rate may have a negative impact on Telesat's financial results and affect the ability of Telesat to repay or refinance its borrowings. Telesat's main currency exposures as of December 31, 2018 lie in its U.S. dollar denominated cash and cash equivalents, trade and other receivables, trade and other payables and indebtedness, with the most significant impact being on the U.S. dollar denominated indebtedness. In addition, approximately 50% of Telesat's revenues, 30% of its operating expenses, 100% of its interest expense and a majority of its capital expenditures for 2018 were denominated in U.S. dollars. As of December 31, 2018, a five percent increase (decrease) in the Canadian dollar against the U.S. dollar on financial assets and liabilities would have (decreased) increased Telesat's net loss by approximately \$120 million. This analysis assumes all other variables remain constant.

Loral reports its investment in Telesat using the equity method of accounting. Loral reports its investment in Telesat in U.S. dollars while Telesat reports its financial results in Canadian dollars. As a result, Telesat's results of operations are subject to conversion from Canadian dollars to U.S. dollars. Changes in the U.S. dollar relationship to the Canadian dollar affect how Telesat's financial results are reported in our consolidated financial statements. During 2018, the exchange rate moved from U.S. \$1.00/CAD 1.2571 at December 31, 2017 to U.S. \$1.00/CAD 1.3637 at December 31, 2018.

While we own 62.7% of Telesat on an economic basis, we own only 32.6% of its voting stock and therefore do not have the right to elect or appoint a majority of the members of its Board of Directors and our interests and those of the other Telesat shareholders may diverge or conflict.

While we own 62.7% of the economic interests in Telesat, we hold only 32.6% of its voting interests. Although the restrictions on foreign ownership of Canadian satellites have been removed by the government of Canada, we are still subject to our shareholders agreement with the Public Sector Pension Investment Board ("PSP") and the articles of incorporation of Telesat, which do not allow us to own more voting stock of Telesat than we currently own. Also, under our shareholders agreement, the governance and management of Telesat is vested in its 10 member Board of Directors, comprised of three Loral-appointed directors, three PSP-appointed directors and four independent directors, two of whom also own Telesat shares with nominal economic value and 31.1% and 6.8% of the voting interests for Telesat directors, respectively. While we own a greater voting interest in Telesat than any other single stockholder with respect to election of directors and we and PSP, which owns 29.4% of the voting interests for directors and 67.4% of the voting interests for all other matters, together own a majority of Telesat's voting power, circumstances may occur where our interests and those of PSP diverge or are in conflict. For example, it is likely that any strategic transaction involving our ownership interests in Telesat that we wish to pursue will require the cooperation of PSP, and PSP may not share our objectives or wish to pursue transactions in which we are interested or any transaction at all. In the event that our interests differ from those of PSP, PSP, with the agreement of at least three of the four independent directors, may, subject to veto rights that we have under Telesat's shareholders agreement, cause Telesat

to take actions contrary to our wishes. These veto rights are, however, limited to certain extraordinary actions — for example, the incurrence of more than \$100 million of indebtedness or the purchase of assets at a cost in excess of \$100 million. Moreover, our right to block these actions under the shareholders agreement falls away if, subject to certain exceptions, either (i) ownership or control, directly or indirectly by Dr. Mark H. Rachesky (President of MHR Fund Management LLC, or MHR, which, through its affiliated funds is our largest stockholder) of our voting stock falls below certain levels other than in certain specified circumstances or (ii) there is a change in the composition of a majority of the members of Loral's board of directors over a consecutive two-year period without the approval of the incumbent directors.

Table of Contents

We may face indemnification claims for pre-closing taxes from our sale of SSL.

In the fourth quarter of 2012, we completed the sale of our wholly-owned subsidiary, Space Systems/Loral, LLC (formerly known as Space Systems/Loral, Inc.) (“SSL”), to MDA Communications Holdings, Inc., a subsidiary of Maxar Technologies Ltd. (formerly known as MacDonald, Dettwiler and Associates Ltd.) (“MDA”). Under the terms of the purchase agreement related to the SSL sale, we are obligated to indemnify MDA and its affiliates for certain pre-closing taxes. The final amounts of certain indemnification claims relating to pre-closing taxes have not yet been determined. Where appropriate, we intend vigorously to contest the underlying tax assessments, but there can be no assurance that we will be successful. We may not be able to settle indemnification claims at or below the value recorded in our financial statements, and indemnification claims under the purchase agreement, whether pending now or made in the future, could have a material adverse effect on our financial condition, including liquidity, and results of operations.

Loral Space & Communications Inc. is a holding company with no current operations; we are dependent upon, and may not receive, sufficient cash flow from our affiliates or be able to incur sufficient borrowings to meet our financial obligations.

Loral is a holding company with ownership interests in Telesat and XTAR and, as such, Loral has no independent operations or operating assets and has ongoing cash requirements. We are dependent upon, and may not receive, sufficient cash flow from our affiliates or be able to incur sufficient borrowings to meet our financial obligations.

The ability of Telesat and XTAR to make payments or distributions to Loral, whether as dividends or as payments under applicable management and consulting agreements or otherwise, will depend on their operating results, including their ability to satisfy their own cash flow requirements, and obligations including, without limitation, their debt service obligations. Moreover, covenants contained in the debt agreements of Telesat impose limitations on its ability to dividend or distribute funds to Loral. Even if the applicable debt covenants would permit Telesat to pay dividends or make distributions, Loral will not have the ability to cause Telesat to do so. See above “While we own 62.7% of Telesat on an economic basis, we own only 32.6% of its voting stock and therefore do not have the right to elect or appoint a majority of the members of its Board of Directors and our interests and those of the other Telesat shareholders may diverge or conflict.” Likewise, any dividends or distributions by XTAR would require the prior consent of our Spanish partner in the joint venture.

Although our equity in Telesat has substantial value, our shareholders agreement with PSP regarding Telesat limits our ability to pledge our shares in Telesat as collateral for borrowing. For so long as the shareholders agreement is in place in its current form (see below “The initial public offering of Telesat and related governance changes that we have requested may not occur or may proceed in a manner contrary to our requests”), we may not be able to borrow or access the debt markets on a secured basis to fund our financial obligations, and our ability to borrow or access the debt markets on an unsecured basis may be limited or not available at all.

XTAR has not generated sufficient revenues to meet all of its substantial contractual obligations, and XTAR may be unable to pay these obligations when due, which could ultimately result in a restructuring of XTAR.

XTAR has not been successful in leasing a significant portion of its available capacity. As a result, XTAR has deferred certain payments owed to us, Hisdesat and Telesat, including payments due under an agreement with Hisdesat to lease certain transponders on the Spainsat satellite (the “Spainsat Lease Agreement”). As of December 31, 2018 and 2017, XTAR has deferred payment of liabilities of \$37.6 million and \$32.7 million, respectively, under the Spainsat Lease Agreement. XTAR’s lease and other obligations to Hisdesat, which will aggregate in excess of \$75 million over the remaining life of the satellite as of December 31, 2018, are substantial, especially in light of XTAR’s limited revenues to date. XTAR has agreed that most of its excess cash balance would be applied towards making

limited payments on these obligations, as well as payments of other amounts owed to us, Hisdesat and Telesat in respect of services provided by them to XTAR. Unless XTAR is able to generate a substantial increase in its revenues, these obligations will continue to accrue and grow, and, absent agreement to further defer all or some these obligations, XTAR may be unable to pay them when due, which ultimately could result in a restructuring of XTAR. As of December 31, 2018, \$6.7 million was due to Loral from XTAR and we had an allowance of \$6.6 million against these receivables.

Table of Contents

The soundness of financial institutions and counterparties could adversely affect Telesat or us.

We and Telesat have exposure to many different financial institutions and counterparties (including those under credit, financing and insurance arrangements), including brokers and dealers, commercial banks, investment banks, insurance providers and other institutions and industry participants. We and Telesat are exposed to risk, including credit risk resulting from many of the transactions executed in connection with hedging activities, in the event that any lenders or counterparties, including insurance providers, are unable to honor their commitments or otherwise default under an agreement with Telesat or us.

We have explored, are exploring and expect in the future to explore various strategic transactions; this process may have an adverse effect on our financial condition and results of operations whether or not a transaction is ultimately consummated.

We have previously explored, and are exploring, potential strategic transactions involving Telesat. In the future, we expect to continue to pursue strategic alternatives involving Telesat with the goal of maximizing shareholder value. The process of pursuing a strategic transaction will result in transaction costs and may result in the diversion of the attention of operating management of Telesat from business operations, the disclosure of confidential information to competitors or potential customers as part of a due diligence process and an adverse perception of Telesat in the marketplace which could, among other things, adversely affect Telesat's ability to win new business. Any of such results could have a material adverse effect on our financial condition and results of operations whether or not a strategic transaction is consummated. There can be no assurance whether or when any transaction involving Lorol or Telesat will occur, and, even if a transaction is consummated, there can be no assurance as to whether or to what degree such a transaction will be successful in maximizing value to our shareholders.

We may explore and evaluate possible strategic transactions and alliances other than those involving Telesat which require financing which may not be available at all or on favorable terms.

Lorol may, in addition to exploring strategic transactions involving Telesat, from time to time, explore and evaluate possible strategic transactions and alliances which may include joint ventures and strategic relationships as well as business combinations or the acquisition or disposition of assets. In order to pursue certain of these opportunities, additional funds are likely to be required. There can be no assurance that we will enter into additional strategic transactions or alliances, nor do we know if we will be able to obtain the necessary financing for transactions that require additional funds on favorable terms, if at all.

As part of our business strategy, we or Telesat may complete acquisitions or dispositions, undertake restructuring efforts or engage in other strategic transactions. These actions could adversely affect our or Telesat's business, results of operations and financial condition.

As part of our business strategy, we or Telesat may engage in discussions with third parties regarding, or enter into agreements relating to, acquisitions, dispositions, restructuring efforts or other strategic transactions in order to manage our or Telesat's product and technology portfolios or further our strategic objectives. In order to pursue this strategy successfully, we or Telesat must identify suitable acquisition or alliance candidates and complete these transactions, some of which may be large and complex. Any of these activities may result in disruptions to our or Telesat's business and may not produce the full efficiency and cost reduction benefits anticipated.

Instability in financial markets could adversely affect our ability to access additional capital.

In past years, the volatility and disruption in the capital and credit markets reached unprecedented levels. If these conditions reoccur, there can be no assurance that we will not experience a material adverse effect on our ability to

borrow money or have access to capital, if needed. Lenders may be unable or unwilling to lend money. In addition, if we determine that it is appropriate or necessary to raise capital in the future, the future cost of raising funds through the debt or equity markets may be expensive or those markets may be unavailable. If we were unable to raise funds through debt or equity markets, it could have a material adverse effect on our business, results of operations and financial condition.



Table of Contents

The Telesat information in this report other than the information included in the audited financial statements is based solely on information provided to us by Telesat.

Because we do not control Telesat, we do not have the same control and certification processes with respect to the information contained in this report on Telesat that we would have if we controlled Telesat. We are also not involved in managing Telesat's day-to-day operations. Accordingly, the Telesat information contained in this report other than the information included in the audited financial statements is based solely on information provided to us by Telesat and has not been separately verified by us.

II. Risk Factors Associated With Satellite Services

Telesat's in-orbit satellites may fail to operate as expected due to operational anomalies resulting in lost revenues, increased costs and/or termination of contracts.

Satellites utilize highly complex technology and operate in the harsh environment of space and therefore are subject to significant operational risks while in orbit. The risks include in-orbit equipment failures, malfunctions and other kinds of problems commonly referred to as anomalies. Satellite anomalies include, for example, circuit failures, transponder failures, solar array failures, telemetry transmitter failures, battery cell and other power system failures, satellite control system failures and propulsion system failures. Some of Telesat's satellites have had malfunctions and other anomalies in the past. Acts of war, terrorism, magnetic, electrostatic or solar storms, space debris, satellite conjunctions or micrometeoroids could also damage Telesat's satellites.

Despite working closely with satellite manufacturers to determine the causes of anomalies and mitigate them in new satellites and to provide for intrasatellite redundancies for certain critical components to minimize or eliminate service disruptions in the event of failure, anomalies are likely to be experienced in the future, whether due to the types of anomalies described above or arising from the failure of other systems or components, and intrasatellite redundancy may not be available upon the occurrence of such anomalies. There can be no assurance that, in these cases, it will be possible to restore normal operations. Where service cannot be restored, the failure could cause the satellite to have less capacity available for sale, to suffer performance degradation, or to cease operating prematurely, either in whole or in part.

Any single anomaly or series of anomalies or other failure (whether full or partial) of any of Telesat's satellites could cause Telesat's revenues, cash flows and backlog to decline materially, could require Telesat to repay prepayments made by customers of the affected satellite and could have a material adverse effect on Telesat's relationships with current customers and its ability to attract new customers for satellite services. A failure could result in a customer terminating its contract for service on the affected satellite. If Telesat is unable to provide alternate capacity to an affected customer, the customer may decide to procure all or a portion of its future satellite services from an alternate supplier or the customer's business may be so adversely affected by the satellite failure that it may not have the financial ability to procure future satellite services. It may also require Telesat to expedite its planned replacement program, adversely affecting its profitability, increasing its financing needs and limiting the availability of funds for other business purposes. Finally, the occurrence of anomalies may adversely affect Telesat's ability to insure satellites at commercially reasonable premiums, if at all, and may cause insurers to demand additional exclusions in policies they issue.

Table of Contents

Changes in consumer demand for traditional television services and expansion of terrestrial networks have adversely impacted the growth in subscribers to DTH television services in North America which may adversely impact Telesat's future revenues.

A substantial amount of Telesat's revenue is earned from customers who use Telesat's services to provide DTH television services to the public in North America. For various reasons, the number of DTH subscribers to whom Telesat's customers provide services has been decreasing. In many regions of the world, including North America, the terrestrial networks with which Telesat competes continue to expand. Terrestrial networks have advantages over traditional DTH services for the delivery of two-way services, such as on demand video services. Moreover, one of Telesat's largest DTH customers also has a substantial fiber terrestrial broadcast distribution network that it is continuing to expand, which has led to certain of its own DTH customers migrating to its terrestrial network. The migration of DTH customers to terrestrial networks in order to access improved two-way services or for other reasons could decrease the demand for Telesat's services, adversely impacting its revenue and financial performance.

The growth of "over the top" ("OTT") video distribution (e.g., Netflix) may also have an adverse impact on Telesat's business. OTT distribution is an on-demand (i.e. non-linear) platform that provides delivery of broadcasting services to consumers through an internet service provider that may not be involved in the control or distribution of the content itself. The growth of OTT distribution may have a negative impact on the demand for the services of some of Telesat's large DTH customers which could result in lower demand for its satellite capacity.

Fluctuations in available satellite capacity could adversely affect Telesat's results.

The availability of satellite capacity has fluctuated over time, characterized by periods of undersupply of capacity, followed by periods of substantial new satellite construction which is, in turn, followed by an oversupply of available capacity. The industry appears to be currently experiencing a period of oversupply. Given the number of new satellites launched over the past year and the number presently under construction, many of which contain high throughput payloads, unless Telesat experiences a corresponding increase in demand, the next several years are likely to continue to be characterized by an oversupply of capacity. In addition, changes in technology could introduce a substantial amount of new capacity into the market, further exacerbating the oversupply problem. An oversupply of capacity may lead to a decrease in rates charged for satellite services which could adversely affect Telesat's results.

Developments that Telesat expects to support the growth in demand for satellite services, such as continued growth in corporate data and internet traffic, may fail to materialize or may not occur in the manner or to the extent Telesat anticipates.

Telesat is subject to significant and intensifying competition within the satellite industry and from other providers of communications capacity. Telesat's failure to compete effectively would result in a loss of revenues and a decline in profitability, which would adversely affect Telesat's results of operations, business prospects and financial condition.

Telesat provides point-to-point and point-to-multipoint services for voice, data and video communications and for high-speed internet access. Telesat competes against global competitors who are substantially larger than Telesat in terms of both the number of satellites they have in orbit as well as in terms of their revenues. Due to their larger sizes, these operators are able to take advantage of greater economies of scale, may be more attractive to customers, may (depending on the specific satellite and orbital location in question) have greater flexibility to restore service to their customers in the event of a partial or total satellite failure and may be able to offer expansion capacity for future requirements. Telesat also competes against regional satellite operators who may enjoy competitive advantages in their local markets. As a result of the availability of export credit agency financing for projects that would not otherwise obtain financing from commercial lenders, new entrants, including governments that have traditionally purchased satellite capacity from established satellite operators, are acquiring their own satellites, which increases the

amount of available satellite capacity in the marketplace and decreases the demand for Telesat's services.

## Table of Contents

Telesat expects a substantial portion of its ongoing business will continue to be in the Canadian domestic market. This market is characterized by increasing competition among satellite providers and rapid technological development. Historically, the Canadian regulatory framework has required the use of Canadian-licensed satellites for the delivery of DTH video programming in Canada. It is possible that this framework could change and allow non-Canadian satellite operators that have adequate service coverage in Canadian territory to compete for future business from Telesat's DTH customers.

Telesat's business is also subject to competition from ground based forms of communications technology. For many point-to-point and other services, the offerings provided by terrestrial companies can be more competitive than the services offered via satellite. A number of companies are increasing their ability to transmit signals on existing terrestrial infrastructures, such as fiber optic cable, DSL (digital subscriber line) and terrestrial wireless transmitters often with funding and other incentives provided by government. The ability of any of these companies to significantly increase their capacity and/or the reach of their network likely would result in a decrease in the demand for Telesat's services. Increasing availability of capacity from other forms of communications technology can create an excess supply of telecommunications capacity, decreasing the prices Telesat would be able to charge for its services under new service contracts and thereby negatively affecting Telesat's profitability. New technology could render satellite-based services less competitive by satisfying consumer demand in other ways. Telesat also competes for local regulatory approval in places where more than one provider may want to operate and with other satellite operators for scarce frequency assignments and a limited supply of orbital locations.

Telesat's failure to compete effectively could result in a loss of revenues and a decline in profitability, a decrease in the value of its business and a downgrade of its credit rating, which would restrict its access to the capital markets.

Changes in technology could have a material adverse effect on Telesat's results of operations, business prospects and financial condition.

The implementation of new technologies that can provide increased capacity to end users at lower cost may reduce demand for Telesat's services. The introduction of first generation high throughput satellites ("HTS"), such as ViaSat 1, Jupiter 1 and Intelsat's "Epic" line of HTS, all of which are able to transmit substantially more data than preexisting satellites, may decrease demand and/or prices for traditional satellite capacity. Many of the new and replacement satellites to be deployed in the near term will be HTS or include high throughput payloads. In addition, second generation HTS systems recently launched and in development purport to be capable of throughput that substantially exceeds the throughput of first generation HTS. While Telesat owns the high throughput Canadian payload on ViaSat 1 and has incorporated high throughput payloads on its Telstar 12 VANTAGE, Telstar 18 VANTAGE and Telstar 19 VANTAGE satellites, the introduction of more, and more capable, HTS by other operators into the markets in which Telesat participates could have a material adverse effect on Telesat's results of operations, business prospects and financial condition.

A number of NGSO satellite projects are in development which, if implemented successfully, could have significant advantages over geostationary satellite systems, in particular for latency sensitive applications. These projects have the potential to substantially increase the amount of available capacity in the marketplace, decreasing demand for geostationary satellite services. In addition to new satellite technologies, new projects which could compete with traditional satellite services have recently been announced, including for the provision of telecommunications services using balloons or drones.

Improvements in existing technologies could also adversely impact the demand for satellite services. For example, improvements in signal compression could allow Telesat's customers to transmit the same amount of data using a reduced amount of capacity, which could decrease demand for Telesat's services.

There are numerous risks and uncertainties associated with Telesat's planned LEO constellation, and Telesat may ultimately choose not to proceed with the project, it may proceed with the project and the project may not be successful or, irrespective of the foregoing, Telesat's pursuit of a LEO constellation may negatively impact its existing business, all of which could have a material adverse effect on Telesat's operations, business prospects, financial condition and its ability to repay its debt.

Telesat is currently developing an advanced, global LEO constellation consisting of over one hundred, and potentially several hundred, satellites in non-geostationary orbit. There are numerous risks and uncertainties associated with NGSO constellations generally and with Telesat's LEO constellation specifically.

## Table of Contents

NGSO constellations are complex. In order to operate successfully and deliver a high quality service, all components of the system, both on the ground and in space, must be integrated seamlessly and efficiently. Unlike most traditional geostationary satellites currently in use which rely on legacy, space-tested hardware and established ground equipment infrastructures, much of the technology necessary for the successful operation of a LEO constellation, in particular the Telesat LEO constellation, is still in development. Telesat's LEO constellation design incorporates leading-edge satellite technologies, including on-board data processing, multi-beam phased array antennas, and optical inter-satellite links, that have not been fully developed for space application at the scale, levels of performance and price points that Telesat requires. In addition, in order to provide a competitive service in certain of the customer segments Telesat plans to serve, Telesat requires advances in ground terminal design and manufacture, particularly electronic flat panel antennas capable of acquiring and tracking LEO satellites. If Telesat's LEO constellation does not deliver the required quality of service at prices that are competitive relative to other satellite providers and alternative products, Telesat may not be able to acquire customers and establish a successful business. It is possible that despite Telesat's concerted effort to do so, Telesat may not be able to sufficiently overcome the technological hurdles required to complete its planned LEO constellation or Telesat may implement its LEO constellation and, due to technological issues that Telesat did not foresee or which Telesat did not effectively address, Telesat's LEO constellation may not operate as planned.

In order to operate Telesat's LEO constellation efficiently and in a commercially viable manner, Telesat will require access to a sufficient amount of spectrum. Telesat currently holds an authorization from Canada for an NGSO network in Ka-band which has global ITU priority. However, the regulatory framework relating to NGSO spectrum rights remains uncertain. Some of the international and domestic regulations governing NGSO satellites are undergoing revision or have yet to be established. Both Canada and the U.S. have recently adopted new deployment milestones for NGSO systems and the ITU is expected to adopt new deployment milestones for the bringing-into use and maintenance of international NGSO filings at the World Radio Conference in November 2019. New milestones could adversely impact Telesat's ability to maintain priority rights for its planned LEO constellation. In addition, while the international rules governing coordination between NGSO satellite systems are well established and rely on international filing date priority, the U.S. has adopted a different approach to NGSO-NGSO coordination that requires band splitting if NGSO operators are unable to reach a coordination agreement. As a result, the amount of spectrum that may be available to Telesat for its LEO constellation in the U.S. is uncertain. It is possible that other jurisdictions may adopt the U.S. approach. Some of the spectrum utilized by Telesat's LEO constellation is also allocated to terrestrial fixed and mobile services and geostationary satellite services. Other portions of the spectrum Telesat plans to use are under consideration for being designed for terrestrial fixed and mobile services. While some jurisdictions have established rules for sharing the spectrum, many jurisdictions have yet to address this issue. Telesat's ability to use shared spectrum for its LEO constellation may be adversely impacted by new rules or the absence of rules for spectrum sharing. In addition, in order to successfully sell services on Telesat's LEO constellation, Telesat will require market access to each country in which its customers are located. It is uncertain if Telesat will be successful in obtaining market access to all of the countries needed to make its LEO constellation commercially successful.

The implementation of Telesat's planned LEO constellation will require a substantial outlay of capital. Telesat may not be able to raise sufficient capital for any number of reasons. If Telesat is unable to raise sufficient capital, Telesat will not be able to build and deploy its LEO constellation. In addition, if Telesat is successful in raising sufficient capital to fund the LEO constellation and the constellation does not operate as expected or is otherwise commercially unsuccessful, Telesat may not be able to repay all or a substantial part of its debt.

Although Telesat believes there is a significant market for the services Telesat expects to provide with its LEO constellation, Telesat may not be able to attract enough customers to make the project successful and earn a sufficient return on its investment, which could have a material adverse effect on Telesat's business prospects and financial condition and its ability to pay its debt.

The development and deployment of Telesat's LEO constellation may place a significant burden on its management and other internal resources. The diversion of management's attention and internal resources to Telesat's LEO constellation and away from its existing operations could harm Telesat's business and operating results.

If successfully implemented, Telesat's LEO constellation may decrease demand for its other satellite services.

## Table of Contents

The actual orbital maneuver lives of Telesat's satellites may be shorter than Telesat anticipates and Telesat may be required to reduce available capacity on its satellites prior to the end of their orbital maneuver lives.

Telesat anticipates that its satellites will have the end-of-orbital maneuver life dates described above in Item 1 Business. For all but one of Telesat's satellites, the expected end-of-orbital maneuver life date goes beyond the manufacturer's end-of-service life date. A number of factors will affect the actual commercial service lives of Telesat's satellites, including: the amount of propellant used in maintaining the satellite's orbital location or relocating the satellite to a new orbital location (and, for newly-launched satellites, the amount of propellant used during orbit raising following launch); the durability and quality of their construction; the performance of their components; conditions in space such as solar flares and space debris; operational considerations, including operational failures and other anomalies; and changes in technology which may make all or a portion of Telesat's satellite fleet obsolete.

Telesat has been forced to remove satellites from service prematurely in the past due to an unexpected reduction in their previously anticipated end-of-orbital maneuver life. It is possible that the actual orbital maneuver lives of one or more of Telesat's existing satellites may also be shorter than originally anticipated. Further, on some of Telesat's satellites it is anticipated that the total available payload capacity may need to be reduced prior to the satellite reaching its end-of-orbital maneuver life.

Telesat periodically reviews the expected orbital maneuver life of each of its satellites using current engineering data. A reduction in the orbital maneuver life of any of Telesat's satellites could result in a reduction of the revenues generated by that satellite, the recognition of an impairment loss and an acceleration of capital expenditures. To the extent Telesat is required to reduce the available payload capacity prior to the end of a satellite's orbital maneuver life, its revenues from the satellite would be reduced.

Telesat's insurance will not protect it against all satellite-related losses. Further, Telesat may not be able to renew insurance on its existing satellites or obtain insurance on future satellites on acceptable terms or at all, and, for certain of Telesat's existing satellites, Telesat has elected to forego obtaining insurance.

Telesat's current satellite insurance does not protect it against all satellite-related losses that it may experience, and it does not have in-orbit insurance coverage for all of the satellites in its fleet. As of December 31, 2018, the total net book value of Telesat's six in-orbit satellites for which it does not have insurance (Nimiq 1, Nimiq 2, Anik F1, Telstar 12, Telstar 18 and ViaSat 1) was approximately CAD 31 million. Telesat's insurance does not protect it against business interruption, loss of revenues or delay of revenues. In addition, Telesat does not insure the net book value of performance incentives that may be payable to a satellite's manufacturer as these are payable only to the extent that the satellite operates in accordance with contracted technical specifications. Telesat's existing launch and in-orbit insurance policies include, and any future policies that Telesat obtains can be expected to include, specified exclusions, deductibles and material change limitations. Typically, these insurance policies exclude coverage for damage or losses arising from acts of war, anti-satellite devices, electromagnetic or radio frequency interference and other similar potential risks for which exclusions are customary in the industry at the time the policy is written. In addition, they typically exclude coverage for satellite health-related problems affecting Telesat's satellites that are known at the time the policy is written or renewed. Any claims under existing policies are subject to settlement with the insurers and may, in some instances, be payable to Telesat's customers.

The price, terms and availability of satellite insurance has fluctuated significantly in recent years. These fluctuations may be affected by recent satellite launch or in-orbit failures and general conditions in the insurance industry. Launch and in-orbit policies on satellites may not continue to be available on commercially reasonable terms or at all. To the extent Telesat experiences a launch or in-orbit failure that is not fully insured, or for which insurance proceeds are delayed or disputed, it may not have sufficient resources to replace the affected satellite. In addition, higher premiums on insurance policies increase Telesat's costs, thereby reducing its profitability. In addition to higher premiums,



insurance policies may provide for higher deductibles, shorter coverage periods, higher loss percentages required for constructive total loss claims and additional satellite health-related policy exclusions. There can be no assurance that, upon the expiration of an in-orbit insurance policy, which typically has a term of one year, Telesat will be able to renew the policy on terms acceptable to it.

## Table of Contents

Subject to the requirements of Telesat's senior credit facilities and the indenture governing Telesat's 8.875% senior notes, Telesat may elect to reduce or eliminate insurance coverage for certain of its existing satellites, or elect not to obtain insurance policies for its future satellites, especially if exclusions make such policies ineffective, the costs of coverage make such insurance impractical or if self-insurance is deemed more cost effective.

Telesat derives a substantial amount of its revenues from only a few of its customers. A loss of, or default by, one or more of these major customers, or a material adverse change in any such customer's business or financial condition, could materially reduce Telesat's future revenues and contracted backlog.

For the year ended December 31, 2018, Telesat's top five customers together accounted for approximately 63% of its revenues. At December 31, 2018, Telesat's top five backlog customers together accounted for approximately 84% of its backlog. If any of Telesat's major customers chooses not to renew its contract or contracts at the expiration of the existing terms or seeks to negotiate concessions, particularly on price, it could have a material adverse effect on Telesat's results of operations, business prospects and financial condition. Telesat's customers could experience a downturn in their business or find themselves in financial difficulties, which could result in their ceasing or reducing their use of Telesat's services or becoming unable to pay for services they had contracted to buy. In addition, some of Telesat's customers' industries are undergoing significant consolidation, and Telesat's customers may be acquired by each other or other companies, including by Telesat's competitors. Such acquisitions could adversely affect Telesat's ability to sell services to such customers and to any end-users whom they serve. Some customers have in the past defaulted, and Telesat's customers may in the future default, on their obligations to Telesat due to bankruptcy, lack of liquidity, operational failure or other reasons. Such defaults could adversely affect Telesat's revenues, operating margins and cash flows. If Telesat's contracted revenue backlog is reduced due to the financial difficulties of its customers, Telesat's revenues, operating margins and cash flows would be further negatively impacted.

Telesat's business is capital intensive, and Telesat may not be able to raise adequate capital to finance its business strategies, or Telesat may be able to do so only on terms that significantly restrict its ability to operate its business.

Implementation of Telesat's business strategy requires a substantial outlay of capital. As Telesat pursues its business strategies and seeks to respond to developments in its business and opportunities and trends in its industry, its actual capital expenditures may differ from its expected capital expenditures. There can be no assurance that Telesat will be able to satisfy its capital requirements in the future. In addition, if one of Telesat's satellites failed unexpectedly, there can be no assurance of insurance recovery or the timing thereof and Telesat may need to exhaust or significantly draw upon its revolving credit facility or obtain additional financing to replace the satellite. If Telesat determines that it needs to obtain additional funds through external financing and is unable to do so, Telesat may be prevented from fully implementing its business strategy.

The availability and cost to Telesat of external financing depends on a number of factors, including its credit rating and financial performance and general market conditions. Telesat's ability to obtain financing generally may be influenced by the supply and demand characteristics of the telecommunications sector in general and of the satellite services sector in particular. Declines in Telesat's expected future revenues under contracts with customers and challenging business conditions faced by its customers are among the other factors that may adversely affect Telesat's credit and access to the capital markets. Other factors that could impact Telesat's credit rating include the amount of debt in its current or future capital structure, activities associated with strategic initiatives, the health of its satellites, the success or failure of its planned launches, its expected future cash flows and the capital expenditures required to execute its business strategy. The overall impact on Telesat's financial condition of any transaction that it pursues may be negative or may be negatively perceived by the financial markets and rating agencies and may result in adverse rating agency actions with respect to its credit rating and access to the capital markets. Long-term disruptions in the capital or credit markets as a result of uncertainty or recession, changing or increased regulation or failures of significant financial institutions could adversely affect Telesat's access to capital. A credit rating downgrade or

deterioration in Telesat's financial performance or general market conditions could limit its ability to obtain financing or could result in any such financing being available only at greater cost or on more restrictive terms than might otherwise be available and, in either case, could result in Telesat deferring or reducing capital expenditures including on new or replacement satellites.

In certain circumstances, Telesat is required to obtain the approval of its shareholders to incur additional indebtedness. There can be no assurances that Telesat will receive such approval, if required.

## Table of Contents

Telesat operates in a highly regulated industry and government regulations may adversely affect its ability to sell its services, or increase the expense of such services or otherwise limit Telesat's ability to operate or grow its business.

As an operator of a global satellite system, Telesat is regulated by government authorities in Canada, the United States, Brazil and other countries in which it operates.

In Canada, Telesat's operations are subject to regulation and licensing by ISED pursuant to the Radiocommunication Act (Canada) and by the CRTC, under the Telecommunications Act (Canada). ISED has the authority to issue licenses, establish standards, assign Canadian orbital locations, and plan the allocation and use of the radio frequency spectrum, including the radio frequencies upon which Telesat's satellites and earth stations depend. The Minister responsible for ISED has broad discretion in exercising this authority to issue licenses, fix and amend conditions of licenses, and to suspend or even revoke them. The CRTC has authority over the allocation (and reallocation) of satellite capacity to particular broadcasting undertakings. Telesat is required to pay "universal service" charges in Canada and has certain research and development and public benefit obligations that do not apply to other satellite operators with which it competes. These obligations could change at any time.

In the United States, the FCC regulates the provision of satellite services to, from, or within the United States. Certain of Telesat's satellites are owned and operated through a U.S. subsidiary and are regulated by the FCC. In addition, to facilitate the provision of FSS satellite services in C-, Ku- and Ka-band frequencies in the United States market, foreign licensed operators can apply to have their satellites either placed on the FCC's Permitted Space Station List (for certain frequencies) or be granted a declaratory ruling (for other frequencies). Telesat's Anik F1, Anik FIR, Anik F2, Anik F3, Telstar 14R/Estrela do Sul 2 and Telstar 19 VANTAGE satellites are currently authorized to serve the U.S. market in accordance with these procedures. The export from the United States of satellites and technical information related to satellites, earth station equipment and provision of services to certain countries are subject to State Department, Commerce Department and Treasury Department regulations, in particular the ITAR which currently includes satellites on the list of items requiring export permits. These ITAR provisions have constrained Telesat's access to technical information and have had a negative impact on its international consulting revenues. In addition, Telesat and its satellite manufacturers may not be able to obtain and maintain necessary export authorizations which could adversely affect Telesat's ability to procure new United States-manufactured satellites; control its existing satellites; acquire launch services; obtain insurance and pursue its rights under insurance policies; or conduct its satellite-related operations and consulting activities.

Telesat also operates satellites through licenses granted by, and subject to regulations in, countries other than Canada and the United States. For example, the Brazilian national telecommunications agency, ANATEL, regulates the granting of exploitation and landing rights to the operation of Brazilian and foreign satellites and their use to transport telecommunication signals. ANATEL has authorized Telesat, through its subsidiary, TBCS, to operate Telstar 14R/Estrela do Sul 2, a Ku-band FSS satellite, and Telstar 19 VANTAGE, a Ku-band and Ka-band FSS satellite, at 63° WL, pursuant to Concession Agreements. ANATEL has also accredited Telesat as the legal representative in Brazil for Telstar 12 VANTAGE, Anik F1 and Anik G1. Telstar 18 and Telstar 18 VANTAGE operate at the 138° EL orbital location under agreements with APT, which has been granted the right to use the 138° EL orbital location by The Kingdom of Tonga.

In a number of countries, including Canada and the United States, regulators are considering and may adopt new spectrum allocations for terrestrial mobile broadband and 5G, including in bands that are currently allocated to satellite services. New spectrum allocations may require satellite operators to vacate or share spectrum and may limit the spectrum that is available for satellite services, which could adversely impact Telesat's business.

In addition to regulatory requirements governing the use of orbital locations, most countries regulate transmission of signals to and from their territory, and Telesat is required to obtain and maintain authorizations to carry on business in

the countries in which Telesat operates.

27

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## Table of Contents

If Telesat fails to obtain or maintain particular authorizations on acceptable terms, such failure could delay or prevent Telesat from offering some or all of its services and adversely affect its results of operations, business prospects and financial condition. In particular, Telesat may not be able to obtain all of the required regulatory authorizations for the construction, launch and operation of any of its future satellites, for the orbital locations and spectrum for these satellites and for its ground infrastructure, on acceptable terms or at all. Even if Telesat were able to obtain the necessary authorizations and orbital locations, the licenses Telesat obtains may impose significant operational restrictions, or not protect Telesat from interference that could affect the use of its satellites. Countries or their regulatory authorities may adopt new laws, policies or regulations, or change their interpretation of existing laws, policies or regulations, that could cause Telesat's existing authorizations to be changed or cancelled, require Telesat to incur additional costs, impose or change existing pricing, or otherwise adversely affect its operations or revenues. As a result, any currently held regulatory authorizations are subject to rescission and renewal and may not remain sufficient or additional authorizations may be necessary that Telesat may not be able to obtain on a timely basis or on terms that are not unduly costly or burdensome. Further, because the regulatory schemes vary by country, Telesat may be subject to regulations in foreign countries of which Telesat is not presently aware that it is not in compliance with, and as a result could be subject to sanctions by a foreign government.

Telesat's operations may be limited or precluded by ITU rules or processes, and Telesat is required to coordinate its operations with those of other satellite operators.

The ITU, a specialized United Nations agency, regulates the global allocation of radio frequency spectrum and the registration of radio frequency assignments and any associated satellite orbit. Telesat participates in the activities of the ITU. Only national administrations, however, have full standing as ITU members. Consequently, Telesat must rely on the relevant government administrations to represent its interests.

The ITU establishes the Radio Regulations, an international treaty which contains the rules concerning frequency allocations and the priority to, coordination of, and use of, radio frequency assignments. The ITU Radio Regulations define the allocation of radio frequencies to specific uses. The ITU Radio Regulations are periodically reviewed and revised at World Radiocommunication Conferences (each, a "WRC"), which take place typically every three to four years. Terrestrial operators are increasingly seeking additional radio frequency assignments, including frequencies currently designated for exclusive or shared use by satellite systems, to support the increasing demand for terrestrial services. The ITU is currently reviewing and may adopt at the WRC in November 2019 new international spectrum allocations for terrestrial mobile and other services. As a result, Telesat cannot guarantee that the ITU will not change its allocation decisions and rules in the future in a way that could limit or preclude Telesat's use of some or all of its existing or future orbital locations or spectrum.

The ITU Radio Regulations also establish operating procedures for satellite networks and prescribe detailed coordination, notification and recording procedures. With respect to the frequencies used by commercial satellites, the ITU Radio Regulations set forth a process for protecting earlier-registered satellite systems from interference from later-registered satellite systems. In order to comply with these rules, Telesat must coordinate the operation of its satellites, including any replacement satellite that has performance characteristics that are different from those of the satellite it replaces, with other satellites. This process requires potentially lengthy and costly negotiations with parties who operate or intend to operate satellites that could affect or be affected by Telesat's satellites.

In certain countries, a failure to resolve coordination issues is used by regulators as a justification to limit or condition market access by foreign satellite operators. In addition, while the ITU Radio Regulations require later-in-time systems to coordinate their operations with Telesat, Telesat cannot guarantee that other operators will conduct their operations so as to avoid transmitting any signals that would cause harmful interference to the signals that Telesat, or its customers, transmit. This interference could require Telesat to take steps, or pay or refund amounts to its customers, that could have a material adverse effect on Telesat's results of operations, business prospects and financial

condition. The ITU's Radio Regulations do not contain mandatory dispute resolution or enforcement regulations and neither the ITU specifically, nor international law generally, provides clear remedies if the ITU coordination process fails. Failure to coordinate Telesat's satellites' frequencies successfully or to obtain or maintain other required regulatory approvals could have an adverse effect on Telesat's business operations, prospects and financial condition, as well as on the value of its business.

Table of Contents

Telesat's satellite launches may be delayed, it may suffer launch failures or its satellites may fail to reach their planned orbital locations. Any such issue could result in the loss of a satellite or cause significant delays in the deployment of the satellite which could have a material adverse effect on Telesat's results of operations, business prospects and financial condition.

Delays in launching satellites and in the deployment of satellites are not uncommon and result from construction delays, the unavailability of reliable launch opportunities with suppliers, delays in obtaining required regulatory approvals and launch failures. If satellite construction schedules are not met, a launch opportunity may not be available at the time the satellite is ready to be launched. Satellites are also subject to certain risks related to failed launches. Launch failures result in significant delays in the deployment of satellites because of the need to construct replacement satellites, which typically takes up to 30 months or longer, and to obtain another launch vehicle. A delay or perceived delay in launching a satellite, or replacing a satellite, may cause Telesat's current customers to move to another satellite provider if they determine that the delay may cause an interruption in continuous service. In addition, Telesat's contracts with customers who purchase or reserve satellite capacity may allow the customers to terminate their contracts in the event of a delay. Any such termination would require Telesat to refund any prepayment it may have received, and would result in a reduction in Telesat's contracted backlog and would delay or prevent Telesat from securing the commercial benefits of the new satellite. Launch vehicles may also underperform, in which case the satellite may be lost or, if it can be placed into service by using its onboard propulsion systems to reach the desired orbital location, will have a shorter useful life. Any launch failure, underperformance, delay or perceived delay could have a material adverse effect on Telesat's results of operations, business prospects and financial condition.

If Telesat does not make use of its spectrum rights by specified deadlines, or does not continue to use the orbital spectrum rights it currently uses, those rights may become available for other satellite operators to use.

Telesat's in-orbit satellites do not currently occupy all of the geostationary locations for which it has obtained regulatory authorizations. In some cases, the Telesat satellite that occupies a geostationary location is not designed to use all of the frequency spectrum for which Telesat has been authorized. Similarly, Telesat has been granted regulatory authorizations for certain spectrum in NGSO that are not yet occupied at all or in which the full complement of satellites have not yet been deployed.

In accordance with the ITU Radio Regulations, governments have rights to use certain geostationary locations and NGSO orbits and the associated radio frequencies. Certain of these governments have in turn authorized Telesat to use geostationary locations, NGSO orbits and associated radio frequencies in addition to those used by its current satellites. Under the ITU Radio Regulations, Telesat must bring into use these orbital locations, orbits and frequency assignments within a fixed period of time, or the governments in question would lose their international priority rights and the geostationary location or NGSO orbits, and associated frequencies likely would become available for use by another satellite operator. In addition to ITU requirements, the governments that have authorized Telesat to use these orbital resources have generally conditioned such use on Telesat meeting certain milestones, including making use of the orbital spectrum by a specified time.

If Telesat is unable to place satellites into currently unused geostationary locations or into NGSO orbits in a manner that satisfies the ITU Radio Regulations and national regulatory requirements, or if the ITU or national regulatory requirements were to change, or if Telesat is unable to maintain satellites or make use of all of the spectrum for which it has been authorized at the geostationary locations that it currently uses, Telesat may lose its rights to use these orbital resources and they would become available for other satellite operators to use. The loss of one or more of Telesat's orbital resources could negatively affect its plans and its ability to implement its business strategy.





## Table of Contents

Replacing a satellite upon the end of its service life will require Telesat to make significant expenditures and may require Telesat to obtain shareholder approval.

To ensure no disruption in Telesat's business and to prevent loss of its customers, Telesat will be required to commence construction of a replacement satellite approximately five years prior to the expected end of service life of the satellite then in orbit. Typically, it costs in the range of \$250 million to \$300 million to construct, launch and insure a geostationary satellite. There can be no assurance that Telesat will have sufficient cash, cash flow or be able to obtain third party or shareholder financing to fund such expenditures on favorable terms, if at all, or that Telesat will obtain shareholder approval to procure replacement satellites. Certain of Telesat's satellites are nearing their expected end-of-orbital maneuver lives. Should Telesat not have sufficient funds available to replace those satellites or should Telesat not receive approval from its shareholders to purchase replacement satellites, it could have a material adverse effect on Telesat's results of operations, business prospects and financial condition.

Reductions in government spending could reduce demand for Telesat's services.

Governments, in particular the U.S. government, purchase a substantial amount of satellite services from commercial satellite operators, including Telesat. Many governments provide funding for satellite services that are used to provide broadband connectivity to rural and remote communities and those with limited terrestrial infrastructure. To the extent these governments reduce spending on satellite services, as a result of the need to reduce overall spending during periods of fiscal restraint, to reduce budget deficits or otherwise, demand for Telesat's services could decrease which could adversely affect Telesat's revenue, the prices it is able to charge for services and its results.

Telesat may experience a failure of ground operations infrastructure or interference with its satellite signals that impairs the commercial performance of, or the services delivered over, its satellites or the satellites of other operators for whom it provides ground services, which could result in a material loss of revenues.

Telesat operates an extensive ground infrastructure including a satellite control center in Ottawa, Ontario, its main earth station and back up satellite control facility at Allan Park, Ontario, nine earth stations throughout Canada, one teleport located in the United States and one in Brazil. These ground facilities are used for controlling Telesat's satellites and for the provision of end-to-end services to Telesat's customers.

Telesat may experience a partial or total loss of one or more of these facilities due to natural disasters (tornado, flood, hurricane or other such acts of God), fire, acts of war or terrorism or other catastrophic events. A failure at any of these facilities would cause a significant loss of service for Telesat customers. Additionally, Telesat may experience a failure in the necessary equipment at the satellite control center, at the back-up facility, or in the communications links between these facilities and remote earth station facilities. A failure or operator error affecting tracking, telemetry and control operations might lead to a breakdown in the ability to communicate with one or more satellites or cause the transmission of incorrect instructions to the affected satellite(s), which could lead to a temporary or permanent degradation in satellite performance or to the loss of one or more satellites. Intentional or non-intentional electromagnetic or radio frequency interference could result in a failure of Telesat's ability to deliver satellite services to its customers. A failure at any of Telesat's facilities or in the communications links between its facilities or interference with its satellite signal could cause its revenues and backlog to decline materially and could adversely affect its ability to market its services and generate future revenues and profit.

Telesat purchases equipment from third party suppliers and depends on those suppliers to deliver, maintain and support these products to the contracted specifications in order for Telesat to meet its service commitments to its customers. Telesat may experience difficulty if these suppliers do not meet their obligations to deliver and support this equipment. Telesat may also experience difficulty or failure when implementing, operating and maintaining this equipment or when providing services using this equipment. This difficulty or failure may lead to delays in

implementing services, service interruptions or degradations in service, which could cause Telesat's revenues and backlog to decline materially and could adversely affect Telesat's ability to market its services and generate future revenues and profit.

30

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## Table of Contents

Telesat's dependence on outside contractors could result in delays related to the design, manufacture and launch of its new satellites, or could limit its ability to sell its services to the U.S. Department of Defense, which could adversely affect Telesat's operating results and prospects.

Any delays in the design, construction or launch of Telesat's satellites could have a material adverse effect on its business, financial condition and results of operations. There are a limited number of manufacturers that are able to design and build satellites according to the technical specifications and standards of quality Telesat requires, including Airbus Defense and Space, Thales Alenia Space, Boeing, Lockheed Martin, MELCO, Orbital and SSL. Telesat also relies on the manufacturers of its satellites to provide support throughout the life of the satellite in the event it should suffer an anomaly. If the business of any of Telesat's manufacturers fails, Telesat's ability to overcome a satellite anomaly and maintain its satellites in service, in whole or in part, could be adversely impacted. There are also a limited number of suppliers able to launch such satellites, including International Launch Services, Arianespace, Mitsubishi Heavy Industries, Space Exploration Technologies Corp. ("SpaceX") and Lockheed Martin. Should any of Telesat's manufacturers' or launch suppliers' businesses fail, competition would be reduced and the cost of satellites and launch services could increase. Adverse events with respect to any of Telesat's manufacturers or launch suppliers could also result in the delay of the design, construction or launch of its satellites. For example, many of Telesat's past launches were provided by International Launch Services, an entity owned by the Russian government. In response to the ongoing situation involving the Russian Federation in the Ukraine, various governments have implemented economic and other sanctions against Russia and its interests. U.S. law requires satellite manufacturers to obtain a license from the U.S. government for the export of certain prescribed U.S. technologies, if the export of the technology is to a Russian counterparty. Virtually all satellites manufactured outside of China contain prescribed U.S. technology. Should the U.S. implement sanctions having the effect of blocking the export of satellites containing prescribed U.S. technologies to Russian-controlled launch providers, it would lead to a reduction in launch alternatives and, as a result, could lead to increased launch costs or delays in the future, which could have an adverse impact on Telesat's business. In addition, in December 2017, the U.S. government adopted new legislation that prohibits the U.S. Secretary of Defense from procuring satellite services using satellites that were launched on a Russian launch vehicle.

General economic conditions may also affect the ability of Telesat's manufacturers and launch suppliers to provide services on commercially reasonable terms or to fulfill their obligations in terms of manufacturing schedules, launch dates, pricing or other items. Even where alternate suppliers for such services are available, Telesat may have difficulty identifying them in a timely manner, or may incur significant additional expense in changing suppliers, and this could result in difficulties or delays in the design, construction or launch of Telesat's satellites.

Telesat's future reported net income and asset values could be adversely affected by impairments of the value of goodwill and intangible assets.

The assets on Telesat's consolidated balance sheet as of December 31, 2018 include goodwill with a carrying value of approximately CAD 2.4 billion and other intangible assets with a carrying value of approximately CAD 268 million. Goodwill and other intangible assets are qualitatively assessed for indicators of impairment. If the qualitative assessment concludes an indication of impairment, a quantitative impairment test of goodwill and other intangible assets (such as orbital locations) with indefinite useful lives is undertaken. Telesat measures for the quantitative impairment test using a projected discounted cash flow method and confirms the assessment using other valuation methods. If the asset's carrying value is more than its recoverable amount, the difference is recorded as a reduction in the amount of the asset on the balance sheet and an impairment charge in the consolidated statement of income (loss). Quantitative testing for impairment requires significant judgment by management to determine the assumptions used in the impairment analysis. Any changes in the assumptions used could have a material impact on the impairment analysis and result in an impairment charge. Telesat cannot predict whether an event that triggers impairment will occur, when it will occur or how it will affect the reported asset values. If Telesat's goodwill or other intangible assets

are deemed to be impaired in whole or in part, it could be required to reduce or write off such assets, which could have a material adverse effect on its financial condition.

## Table of Contents

Telesat is subject to risks associated with doing business internationally.

Telesat's operations internationally are subject to risks that are inherent in conducting business globally. Telesat is subject to compliance with the United States Foreign Corrupt Practices Act ("FCPA") and other similar anti-corruption laws, which generally prohibit companies and their intermediaries from making improper payments to foreign government officials for the purpose of obtaining or retaining business. While Telesat's employees and contractors are required to comply with these laws, Telesat cannot be sure that its internal policies and procedures will always protect it from violations of these laws, despite Telesat's commitment to legal compliance and corporate ethics. Violations of these laws may result in severe criminal and civil sanctions as well as other penalties, and the SEC and U.S. Department of Justice have increased their enforcement activities with respect to the FCPA. The occurrence or allegation of these types of risks may adversely affect Telesat's business, performance, financial condition and results of operations.

Telesat's failure to maintain or obtain authorizations under and comply with the U.S. export control and trade sanctions laws and regulations could have a material adverse effect on its results of operations, business prospects and financial condition.

The export of satellites and technical data related to satellites, earth station equipment and provision of services are subject to U.S. export control and economic sanctions laws, implemented by U.S. State Department, Commerce Department and Treasury Department regulations. If Telesat does not maintain its existing authorizations or obtain necessary future authorizations under the export control laws and regulations of the United States, it may be unable to export technical data or equipment to non-U.S. persons and companies, including to Telesat's own non-U.S. employees, as required to fulfill existing contracts. If Telesat does not maintain its existing authorizations or obtain necessary future authorizations under the trade sanctions laws and regulations of the United States, it may not be able to provide satellite capacity and related administrative services to certain countries subject to U.S. sanctions. Telesat's ability to acquire new United States-manufactured satellites, procure launch services and launch new satellites, operate existing satellites, obtain insurance and pursue its rights under insurance policies or conduct its satellite-related operations and consulting activities could also be negatively affected if Telesat and its suppliers are not able to obtain and maintain required U.S. export authorizations.

The content of third-party transmissions over Telesat's satellites may affect Telesat since Telesat could be subject to sanctions by various governmental entities for the transmission of certain content.

Telesat provides satellite capacity for transmissions by third parties. Telesat does not decide what content is transmitted over its satellites, although its contracts generally provide it with rights to prohibit certain types of content or to cease transmission or permit Telesat to require its customers to cease their transmissions under certain circumstances. A governmental body or other entity may object to some of the content carried over Telesat's satellites, such as "adult services" video channels or content deemed political in nature. Issues arising from the content of transmissions by these third parties over Telesat's satellites could affect its future revenues, operations or relationship with certain governments or customers.

### III. Other Risks

We have been pursuing and will continue to pursue a strategic transaction with respect to our interest in Telesat; there can be no assurance, however, as to when or whether we will be able to conclude any such transaction.

Our principal asset is our majority economic ownership interest in Telesat. In an effort to maximize shareholder value, we have been exploring, and are in discussions with PSP regarding, potential strategic transactions to alter the status quo in our ownership of Telesat. Subject to market conditions and the cooperation of PSP, we continue to explore the

combination of Loral and Telesat into one public company. Also, in 2015, we exercised our right under the Telesat Shareholders Agreement (the “Shareholders Agreement”) to require that Telesat initiate a public offering, and we may further pursue this right in the event that the combination transaction that we are pursuing is not likely to be achievable in a timely manner or on satisfactory terms. See “The initial public offering of Telesat and related governance changes that we have requested may not occur or may proceed in a manner contrary to our requests” below. There can be no assurance as to whether or when we will be able to conclude any strategic transaction or that any strategic initiatives or transaction involving Telesat or Loral may occur, or that any particular economic, tax, structural or other objectives or benefits with respect to any initiative or transaction involving Telesat or Loral’s interest therein will be achieved.

Table of Contents

We received a cash distribution from Telesat of \$242.7 million; we intend to make a cash distribution or return capital to our stockholders from the proceeds of that distribution; there can be no assurance, however, as to the amount and timing of any such distribution or return of capital, and such distribution or return of capital may be impacted by the outcome of our discussions regarding, and the structure of, the strategic combination transaction with respect to our interest in Telesat that we are pursuing.

In the first quarter of 2017, we received \$242.7 million in cash from Telesat, representing our share of an aggregate approximately \$400 million distribution from Telesat to its shareholders and stock option holders. We intend to use the proceeds of such distribution, net of reasonable reserves for working capital and other liabilities, to make a distribution or return capital to our stockholders. There can be no assurance as to the amount and timing of any such distribution or return of capital, and such distribution or return of capital may be impacted by the outcome of our discussions regarding, and the structure of, the strategic combination transaction with respect to our interest in Telesat that we are pursuing.

The initial public offering of Telesat and related governance changes that we have requested may not occur or may proceed in a manner contrary to our requests.

Our Shareholders Agreement with PSP regarding Telesat provides for either PSP or Loral to initiate the process of conducting an initial public offering of the equity shares of Telesat (a “Telesat IPO”). In connection with our exploration of strategic initiatives to alter the status quo in our ownership of Telesat, in July 2015, we exercised our right under the Shareholders Agreement to require Telesat to conduct a Telesat IPO. Specifically, we requested that Telesat issue not more than 25 million newly issued shares of Telesat voting common stock. We also requested the termination of the Shareholders Agreement and the elimination of certain provisions in Telesat’s Articles of Incorporation, both of which we believe are necessary to accommodate a successful public offering. If those provisions are eliminated, an impediment to the conversion of our non-voting Telesat shares to voting shares would be eliminated. Termination or modification of the Shareholders Agreement and conversion of our non-voting shares to voting shares would enable us, after a Telesat IPO and subject to the receipt of any necessary regulatory approvals, to obtain majority voting control of Telesat. To date, we and PSP have not reached agreement on governance matters following a Telesat IPO. In the event a transaction to combine Loral and Telesat into one public company that we are pursuing is not likely to be achievable in a timely manner or on satisfactory terms (see “We have been pursuing and will continue to pursue a strategic transaction with respect to our interest in Telesat; there can be no assurance, however, as to when or whether we will be able to conclude any such transaction,” above), we may further pursue our right to a Telesat IPO. There can be no assurance as to whether, when or on what terms a Telesat IPO, termination or modification of the Shareholders Agreement or any requested changes to Telesat’s Articles of Incorporation may occur or that any particular economic, tax, structural or other objectives or benefits with respect to a Telesat IPO will be achieved. If a Telesat IPO is expected to proceed under unfavorable terms or at an unfavorable price, we may withdraw our demand for a Telesat IPO.

We and PSP may assert legal claims against one another relating to Telesat; there can be no assurance, however, that our claims will be successful or that the relief we seek will be granted or that PSP will not prevail on its claims.

Depending upon the outcome of the strategic initiatives that we are pursuing (see “We have been pursuing and will continue to pursue a strategic transaction with respect to our interest in Telesat; there can be no assurance, however, as to when or whether we will be able to conclude any such transaction,” above), we may assert certain claims against PSP for actions we believe violated our rights relating to the affairs of Telesat under the Telesat Shareholders Agreement and otherwise. In response to our claims, PSP has informed us that it believes that it may have claims against us, although we are not aware of the legal or factual basis for any such claims. We and PSP have agreed that, pending the outcome of our discussions relating to Telesat, it would be beneficial to delay the commencement of any action relating to either party’s claims and have entered into an agreement (the “Tolling Agreement”) which preserves the



parties' rights to assert against one another legal claims relating to Telesat. We also included Telesat as a party to the Tolling Agreement because, as a technical matter of Canadian law and for purposes of potentially seeking equitable relief, Telesat may be a necessary party. There can be no assurance that if the Tolling Agreement lapses that we and PSP will not pursue legal claims against one another relating to Telesat. If we pursue claims against PSP, there can be no assurance that our claims will be successful or that the relief we seek will be granted. If PSP pursues claims against us, there can be no assurance that PSP will not prevail on its claims.

33

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Table of Contents

A public offering of stock in Telesat could adversely affect the market for, and price of, our common stock and the value of our interest in Telesat.

If the Telesat IPO that we have requested occurs, it is uncertain whether the offering would include a primary offering of shares by Telesat, a secondary offering of shares by either or both of the Telesat shareholders or a combination of both types of offerings. It is also uncertain what effect the Telesat IPO (and any corporate restructuring required in connection with such offering under the terms of the Telesat shareholders agreement) would have on Loral's governance rights in Telesat. Changes in our Telesat governance rights could adversely affect the value of our interest in Telesat and the price at which our common stock trades. In addition, a public market for Telesat equity would create a situation where there would be two separate public-market proxies for the value of Telesat – our stock and the Telesat stock. Telesat stock would represent a direct interest in Telesat, whereas the value of the common shares of Loral would also include other assets and liabilities, many of which are difficult to value. Having both Telesat stock and our stock trading publicly could create confusion in the market and could adversely affect the liquidity and/or trading values of either our or Telesat's common stock.

Third parties have significant rights with respect to our affiliates.

Third parties have significant rights with respect to, and we do not have control over management of, our affiliates. For example, while we own 62.7% of the participating shares of Telesat, we own only 32.6% of the voting power. Also, Hisdesat enjoys substantial approval rights in regard to XTAR, our X-band joint venture. The rights of these third parties and fiduciary duties under applicable law could result in others acting or failing to act in ways that are not in our best interest. For example, it is likely that any strategic transaction involving Telesat or XTAR that we wish to pursue will require the cooperation of our joint venture partners, and our partners may not share our objectives or wish to pursue a transaction in which we are interested or any transaction at all.

The loss of executive officers and our inability to retain other key personnel could materially adversely affect our operations or ability to pursue strategic alternatives.

Loral and Telesat rely on a number of key employees, including members of management and certain other employees possessing unique experience in technical and commercial aspects of the satellite services business. If Loral or Telesat are unable to retain these employees, it could be difficult to replace them. In addition, the business of Telesat, with its constant technological developments, must continue to attract highly qualified and technically skilled employees. In the future, the inability to retain or replace these key employees, or the inability to attract new highly qualified employees, could have a material adverse effect on the results of operations, business prospects and financial condition of Loral or Telesat.

Also, we have retained Michael B. Targoff, our former chief executive officer and president, as a consultant, in particular to provide assistance and guidance in the oversight of strategic matters relating to Telesat and XTAR. The consulting agreement may be terminated by either the Company or Mr. Targoff at any time for any reason or for no reason on ten days prior notice. There can be no assurance that Mr. Targoff will not terminate the agreement, and, were he to do so, the ability of the Company to pursue strategic alternatives with regard to Telesat and XTAR could be adversely affected.

Interruption or failure of, or cyber-attacks on, Telesat's or our information technology and communications systems could hurt Telesat's or our ability to operate our respective businesses effectively, which could harm Telesat's or our business and operating results.

Telesat's and our ability to operate our respective businesses depends, in part, on the continuing operation of Telesat's and our information technology and communications systems, which are an integral part of Telesat's and our

businesses. We and Telesat rely on our information and communication systems, as well as software applications developed internally and externally to, among other things, effectively manage the accounting and financial functions, including maintaining internal controls, operate Telesat's satellites and satellites for third parties, provide consulting services by Telesat to customers and transmit customer proprietary and/or confidential content and assist with other operations. Although we and Telesat take steps to secure information technology and communications systems, including computer systems, intranet and internet sites, email and other telecommunications and data networks, the security measures implemented have not always been effective.

## Table of Contents

While we and Telesat continue to bolster systems with additional security measures, and, working with external experts, mitigate the risk of security breaches, systems may be vulnerable to theft, loss, damage and interruption from a number of potential sources and events, including unauthorized access or security breaches, inclement weather, natural or man-made disasters, earthquakes, explosions, terrorist attacks, floods, fires, cyber-attacks, computer viruses, power loss, telecommunications or equipment failures, transportation interruptions, accidents or other disruptive events or attempts to harm our or Telesat's systems. In addition, Telesat's and our facilities are also potentially vulnerable to break-ins, sabotage and intentional acts of vandalism. Moreover, some of these systems are not fully redundant, and disaster recovery planning cannot account for all eventualities. Telesat's and our business and operations could be adversely affected if, as a result of a significant cyber event or otherwise, operations are disrupted or shut down, confidential or proprietary information is stolen or disclosed, Telesat loses customers, costs are incurred or fines are required in connection with confidential or export-controlled information that is disclosed, significant resources are dedicated to system repairs or to increase cyber security protection or we or Telesat otherwise incur significant litigation or other costs as a result of any such event. While Telesat's or our insurance coverage could offset losses relating to some of these types of events, to the extent any such losses are not covered by insurance, a serious disruption to systems could significantly limit Telesat's or our ability to manage and operate our business efficiently, which in turn could have a material adverse effect on our business, reputation, results of operations and financial condition.

MHR may be viewed as our controlling stockholder and may have conflicts of interest with us in the future.

As of December 31, 2018, various funds affiliated with MHR and Dr. Rachesky held approximately 39.9% of the outstanding voting common stock of Loral as well as all issued and outstanding shares of Loral non-voting common stock, which, when taken together, represent approximately 58.4% of the outstanding common equity of Loral as of December 31, 2018. As of March 15, 2019, representatives of MHR occupy two of the seven seats on our board of directors. One seat on our board, previously occupied by a former managing principal of MHR, is currently vacant. In addition, one of our other directors was selected by the creditors' committee in our predecessor's chapter 11 cases, in which MHR served as the chairman. Conflicts of interests may arise in the future between us and MHR. For example, MHR and its affiliated funds are in the business of making investments in companies and may acquire and hold interests in businesses that compete directly or indirectly with us. Under our agreement with PSP, subject to certain exceptions, in the event that either (i) ownership or control, directly or indirectly, by Dr. Rachesky, of our voting stock falls below certain levels other than in certain specific circumstances or (ii) there is a change in the composition of a majority of the members of the Loral board of directors over a consecutive two-year period without the approval of the incumbent directors, we will lose our veto rights relating to certain actions by Telesat. In addition, after either of these events, PSP will have certain rights to enable it to exit from its investment in Telesat, including a right to cause Telesat to conduct an initial public offering in which PSP's shares would be the first shares offered or, if no such offering has occurred within one year due to a lack of cooperation from Loral or Telesat, to cause the sale of Telesat and to drag along the other shareholders in such sale, subject to our right to call PSP's shares at fair market value.

There is a thin trading market for our voting common stock.

Trading activity in our voting common stock, which is listed on the NASDAQ National Market, has generally been light, averaging approximately 55,000 shares per day for the year ended December 31, 2018. Moreover, over 50% of our voting common stock is effectively held by MHR and several other stockholders. If any of our significant stockholders should sell some or all of their holdings, it will likely have an adverse effect on our share price. Although the funds affiliated with MHR have restrictions on their ability to sell our shares under U.S. securities laws, we have filed a shelf registration statement in respect of the voting common stock and non-voting common stock they hold in Loral that effectively eliminates such restrictions. Such funds also have other demand and piggyback registration rights in respect of their Loral voting common stock and non-voting common stock that would also, if exercised, effectively eliminate such restrictions.

The market for our voting common stock could be adversely affected by future issuance of significant amounts of our voting common stock.

As of December 31, 2018, 21,427,078 shares of our voting common stock and 9,505,673 shares of our non-voting common stock were outstanding. On that date, there were also outstanding 75,262 vested restricted stock units. These restricted stock units may be settled either in cash or Loral voting common stock at the Company's option.

35

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## Table of Contents

Sales of significant amounts of our voting common stock to the public, or the perception that those sales could happen, could adversely affect the market for, and the trading price of, our voting common stock.

Changes in tax rates or policies or changes to our tax liabilities could affect operating results.

We are subject to U.S. federal, state and local income taxation on our worldwide income and foreign taxes on certain income from sources outside the United States. Telesat is subject to income taxes in Canada and numerous foreign jurisdictions. Significant judgment is required to determine and estimate tax liabilities, and future annual and quarterly tax rates could be affected by numerous factors, including changes in the applicable tax laws, composition of earnings in countries or states with differing tax rates, valuation and utilization of deferred tax assets and liabilities and the outcome of income tax audits in various jurisdictions around the world. Many countries have or are expected to adopt changes to tax laws as a result of the Base Erosion and Profit Shifting final proposals from the Organization for Economic Co-operation and Development and specific country anti-avoidance initiatives. Such tax law changes increase uncertainty and may adversely affect our results of operations. Although we believe our tax estimates are reasonable, we regularly evaluate the adequacy of our provision for income taxes, and there can be no assurance that any final determination by a taxing authority will not result in additional tax liability which could have a material adverse effect on our results of operations.

The future use of tax attributes is limited.

As of December 31, 2018, we had various tax attributes including carryforwards for federal net operating losses (“NOLs”) of \$107.1 million and foreign tax credits (“FTCs”) of \$109.6 million and state NOLs and tax credits that are available to offset future tax liability (see Notes 2 and 7 to the Loral consolidated financial statements for a description of the accounting treatment of such tax attributes). As our emergence from bankruptcy on November 21, 2005 constituted an “ownership change” under Section 382 of the Internal Revenue Code, our ability to use these tax attributes existing at such effective date is subject to an annual limitation of approximately \$32.6 million (tax effect of \$6.8 million), subject to increase or decrease based on certain factors. If Loral experiences an additional “ownership change” during any three-year period after November 21, 2005, future use of these tax attributes may become further limited. An ownership change may be triggered by sales or acquisitions of Loral equity interests in excess of 50% by shareholders owning five percent or more of our total equity value, i.e., the total market value of our equity interests, as determined on any applicable testing date. A strategic transaction with respect to our ownership interest in Telesat could result in such an ownership change. We would be adversely affected by an additional “ownership change” if, at the time of such change, the total market value of our equity multiplied by the federal applicable long-term tax exempt rate, which at December 31, 2018 was 2.51%, was less than \$32.6 million. As of December 31, 2018, the total market value of our equity (\$1.2 billion) multiplied by the federal applicable long-term tax exempt rate was approximately \$29.1 million.

We are subject to the Foreign Corrupt Practices Act.

We are subject to the Foreign Corrupt Practices Act, or the FCPA, which generally prohibits U.S. companies and their intermediaries from making corrupt payments to foreign officials for the purpose of obtaining or keeping business or otherwise obtaining favorable treatment, and requires companies to maintain adequate record-keeping and internal accounting practices to accurately reflect the transactions of the company. The FCPA applies to companies, individual directors, officers, employees and agents. Under the FCPA, U.S. companies may be held liable for actions taken by strategic or local partners or representatives. If we, our intermediaries or companies in which we have an interest, such as Telesat and XTAR, fail to comply with the requirements of the FCPA, governmental authorities in the United States could seek to impose civil and/or criminal penalties, which could have a material adverse effect on our business, results of operations, financial conditions and cash flows.



## Table of Contents

Accounting standards periodically change and the application of our accounting policies and methods may require management to make estimates about matters that are uncertain.

The regulatory bodies that establish accounting standards, including, among others, the Financial Accounting Standards Board, or the FASB, and the SEC, periodically revise or issue new financial accounting and reporting standards that govern the preparation of our consolidated financial statements. The effect of such revised or new standards on our consolidated financial statements can be difficult to predict and can materially affect how we record and report our results of operations and financial condition. In addition, our management must exercise judgment in appropriately applying many of our accounting policies and methods so they comply with generally accepted accounting principles. In some cases, the accounting policy or method chosen might be reasonable under the circumstances and yet might result in our reporting materially different amounts than would have been reported if we had selected a different policy or method. Accounting policies are critical to fairly presenting our results of operations and financial condition and may require management to make difficult, subjective or complex judgments about matters that are uncertain.

### Item 1B. Unresolved Staff Comments

None.

### Item 2. Properties

#### Corporate

We lease approximately 8,000 square feet of space for our corporate offices in New York, NY.

#### Satellite Services

Telesat's primary SCC is located at its headquarters in Ottawa, Ontario. This facility operates LEO 1, 15 of Telesat's 17 geostationary satellites as well as ViaSat 1 and numerous other satellites for third parties. Telesat's Telstar 14R/Estrela do Sul 2 satellite and Telstar 19 VANTAGE satellite are operated from Telesat's SCC in Rio de Janeiro, Brazil. During 2018, Telesat leased approximately 112,000 rentable square feet for its Ottawa headquarters pursuant to a lease which commenced February 1, 2009. This lease was terminated on January 31, 2019. In the fourth quarter of 2018, Telesat moved its headquarters to a location in downtown Ottawa comprised of approximately 54,000 rentable square feet. The rentable square feet will increase to approximately 76,000 when Telesat takes on additional contiguous space in the third quarter of 2020. The new lease expires on July 31, 2029. Telesat has two options to extend the lease for an additional five years each.

The Allan Park earth station, located northwest of Toronto, Ontario on approximately 65 acres of owned land, houses a customer support center and a technical control center. This facility is the single point of contact for Telesat's international customers and is also the main earth station complex providing telemetry, tracking and control services for the satellites Telesat operates. The Allan Park earth station also houses Telesat's backup SCC for the Nimiq and Anik satellites. The back-up satellite control center for the Telstar satellites is located at the Mount Jackson earth station. Telesat would have the functional ability to restore satellite control services via the Allan Park and Mount Jackson back-up control centers if Telesat's primary SCCs became disabled.

Telesat also operates 11 other earth stations in Canada, the United States and Brazil.

In addition to these facilities, Telesat leases facilities for administrative and sales offices in various locations throughout Canada and the United States as well as in Brazil, England and Singapore.





Table of Contents

Item 3. Legal Proceedings

We discuss certain legal proceedings against the Company in the notes to the Loral consolidated financial statements and refer you to that discussion for important information concerning those legal proceedings, including the basis for such actions and relief sought. See Note 13 to the Loral consolidated financial statements for this discussion.

Item 4. Mine Safety Disclosures

Not Applicable

38

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Table of Contents

PART II

Item 5. Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities

(a) Market Price and Dividend Information

Loral's amended and restated certificate of incorporation provides that the total authorized capital stock of the Company is eighty million (80,000,000) shares consisting of two classes: (i) seventy million (70,000,000) shares of common stock, \$0.01 par value per share, divided into two series, of which 50,000,000 shares are voting common stock and 20,000,000 shares are non-voting common stock and (ii) ten million (10,000,000) shares of preferred stock, \$0.01 par value per share. Each share of voting common stock and each share of non-voting common stock are identical and are treated equally in all respects, except that the non-voting common stock does not have voting rights except as set forth in Article IV(a)(iv) of the amended and restated certificate of incorporation and as otherwise provided by law. Article IV(a)(iv) of Loral's amended and restated certificate of incorporation provides that Article IV(a) of the amended and restated certificate of incorporation, which provides for, among other things, the equal treatment of the non-voting common stock with the voting common stock, may not be amended, altered or repealed without the affirmative vote of holders of a majority of the outstanding shares of the non-voting common stock, voting as a separate class. Except as otherwise provided in the amended and restated certificate of incorporation or bylaws of Loral, each holder of Loral voting common stock is entitled to one vote in respect of each share of Loral voting common stock held of record on all matters submitted to a vote of stockholders.

Holders of shares of Loral common stock are entitled to share equally, share for share in dividends when and as declared by the Board of Directors out of funds legally available for such dividends. Upon a liquidation, dissolution or winding up of Loral, the assets of Loral available to stockholders will be distributed equally per share to the holders of Loral common stock. The holders of Loral common stock do not have any cumulative voting rights. Loral common stock has no preemptive or conversion rights or other subscription rights. There are no redemption or sinking fund provisions applicable to Loral common stock. All outstanding shares of Loral common stock are fully paid and non-assessable.

Our voting common stock trades on the NASDAQ National Market under the ticker symbol "LORL." The table below sets forth the high and low sales prices of Loral voting common stock as reported on the NASDAQ National Market from January 1, 2017 through December 31, 2018.

There is no established trading market for the Company's non-voting common stock. All of the shares of non-voting common stock were issued pursuant to the exemption from the registration requirements of the Securities Act of 1933, as amended (the "Securities Act") provided by Section 4(2) of the Securities Act.

(b) Approximate Number of Holders of Common Stock

At March 11, 2019, there were 133 holders of record of our voting common stock and five holders of record of our non-voting common stock.

(c) Dividends

Loral's ability to pay dividends or distributions on its common stock will depend upon its earnings, financial condition and capital needs and other factors deemed pertinent by the Board of Directors. Loral has not paid any dividends on its common stock for the years ended December 31, 2018 and 2017. In the first quarter of 2017, we received a \$242.7 million cash distribution from Telesat. We intend to use the proceeds of such distribution, net of reasonable reserves

for working capital and other liabilities, to make a distribution or return capital to our stockholders. There can be no assurance as to the amount and timing of any such distribution or return of capital, and such distribution or return of capital may be impacted by the outcome of our discussions regarding, and the structure of, the strategic combination transaction with respect to our interest in Telesat that we are pursuing.

Table of Contents

(d) Securities Authorized for Issuance under Equity Compensation Plans

See Note 9 to the Loral consolidated financial statements for information regarding the Company's stock incentive plan. Compensation information required by Item 11 will be presented in the Company's 2019 definitive proxy statement which is incorporated herein by reference or by an amendment to this Annual Report on Form 10 K.

## Table of Contents

### Item 7. Management’s Discussion and Analysis of Financial Condition and Results of Operations

The following discussion and analysis should be read in conjunction with our consolidated financial statements (the “financial statements”) included in Item 15 of this Annual Report on Form 10 K.

Loral Space & Communications Inc., a Delaware corporation, together with its subsidiaries, is a leading satellite communications company engaged, through our ownership interests in affiliates, in satellite-based communications services.

#### Disclosure Regarding Forward-Looking Statements

Except for the historical information contained in the following discussion and analysis, the matters discussed below are not historical facts, but are “forward-looking statements” as that term is defined in the Private Securities Litigation Reform Act of 1995. In addition, we or our representatives have made and may continue to make forward-looking statements, orally or in writing, in other contexts. These forward-looking statements can be identified by the use of words such as “believes,” “expects,” “plans,” “may,” “will,” “would,” “could,” “should,” “anticipates,” “estimates,” “project,” “outlook” or other variations of these words. These statements, including without limitation those relating to Telesat, are not guarantees of future performance and involve risks and uncertainties that are difficult to predict or quantify. Actual events or results may differ materially as a result of a wide variety of factors and conditions, many of which are beyond our control. For a detailed discussion of these and other factors and conditions, please refer to the Risk Factors section above, the Commitments and Contingencies section below and to our other periodic reports filed with the Securities and Exchange Commission (“SEC”). We operate in an industry sector in which the value of securities may be volatile and may be influenced by economic and other factors beyond our control. We undertake no obligation to update any forward-looking statements.

#### Overview

#### Business

Loral has one operating segment consisting of satellite-based communications services. Loral participates in satellite services operations primarily through its ownership interest in Telesat, a leading global satellite operator. Telesat provides its satellite and communication services from a fleet of satellites that occupy Canadian and other orbital locations. Loral holds a 62.7% economic interest and a 32.6% voting interest in Telesat as of December 31, 2018.

At December 31, 2018, Telesat, with approximately \$2.7 billion of backlog, provided satellite services to customers from its fleet of 17 in-orbit geostationary satellites, including Telstar 18 VANTAGE and Telstar 19 VANTAGE which were successfully launched in the third quarter of 2018. Telesat also owns the Canadian Ka-band payload on the ViaSat 1 satellite and manages the operations of additional satellites for third parties.

In January 2018, Telesat launched a Ka-band satellite into low earth orbit as part of its plan to deploy a high capacity LEO constellation that is expected to deliver low latency, fiber-like broadband to commercial and government users worldwide. In May 2018, orbit raising and payload testing on the LEO 1 satellite was completed and the satellite was ready to support live demonstrations of its capabilities. Live, over-the-air trials on LEO 1 were done in collaboration with Telesat’s existing customers and potential suppliers of Telesat LEO system hardware. In July and August 2018, Telesat entered into agreements with two leading satellite manufacturing teams, Airbus Defence and Space and a

consortium of Thales Alenia Space and Maxar Technologies, to further develop system designs for Telesat's LEO constellation. The two teams will complete their preliminary designs, address key hardware and software development items, and perform a series of technical reviews. Later in 2019, Telesat expects to receive firm proposals for manufacture and launch support of Telesat's LEO satellites and deployment of the ground system infrastructure.

In October 2018, Telesat announced its participation, along with Intelsat, SES and Eutelsat, in the creation of the C-Band Alliance, a consortium formed to facilitate the potential repurposing of certain C-band spectrum in the United States for 5G.

## Table of Contents

The satellite services business is capital intensive and the build-out of a satellite fleet requires substantial time and investment. Once the investment in a satellite is made, the incremental costs to maintain and operate the satellite are relatively low over the life of the satellite, with the exception of in-orbit insurance. Telesat has been able to generate significant revenue backlog by entering into long-term contracts with some of its customers, in some cases for all or substantially all of a satellite's orbital maneuver life. Historically, this has resulted in revenue from the satellite services business being fairly predictable.

Telesat's desirable spectrum rights, commitment to providing the highest level of customer service, deep technical expertise and culture of innovation have enabled it to successfully develop its business to date. Leveraging these strengths and building on its existing contractual revenue backlog, Telesat's focus is on profitably growing its business by increasing the utilization of its in-orbit satellites and, in a disciplined manner, deploying expansion satellite capacity where strong market demand is anticipated.

Telesat believes that it is well positioned to serve its customers and the markets in which it participates. Telesat actively pursues opportunities to develop new satellites, particularly in conjunction with current or prospective customers who will commit to long-term service agreements prior to the time the satellite construction contract is signed. However, while Telesat regularly pursues these opportunities, it does not procure additional or replacement satellites until it believes there is a demonstrated need and a sound business plan for such satellite capacity.

In 2019, Telesat remains focused on increasing utilization of its existing satellites, the development of its global LEO constellation and identifying and pursuing opportunities to invest in expansion of satellite capacity, all while maintaining operating discipline.

Telesat's operating results are subject to fluctuations as a result of exchange rate variations. During 2018, approximately 50% of Telesat's revenues, 30% of its operating expenses, 100% of its interest expense and the majority of its capital expenditures were denominated in U.S. dollars. The most significant impact of variations in the exchange rate is on the U.S. dollar denominated indebtedness and cash and short term investments. As of December 31, 2018, Telesat's U.S. dollar denominated debt totaled \$2.83 billion. As of December 31, 2018, a five percent increase (decrease) in the Canadian dollar against the U.S. dollar on financial assets and liabilities would have (decreased) increased Telesat's net loss by approximately \$120.2 million. This analysis assumes all other variables, in particular interest rates, remain constant.

## General

Our principal asset is our majority economic ownership interest in Telesat. In an effort to maximize shareholder value, we have been exploring, and are in discussions with PSP regarding, potential strategic transactions to alter the status quo in our ownership of Telesat. Subject to market conditions and the cooperation of PSP, we continue to explore the combination of Loral and Telesat into one public company. Also, as described more fully below, we have exercised our right to require that Telesat initiate a public offering, and we may further pursue this right in the event that the



combination transaction that we are pursuing is not likely to be achievable in a timely manner or on satisfactory terms. There can be no assurance as to whether or when we will be able to conclude any strategic transaction or that any strategic initiatives or transaction involving Telesat or Loral may occur, or that any particular economic, tax, structural or other objectives or benefits with respect to any initiative or transaction involving Telesat or Loral's interest therein will be achieved.

In the first quarter of 2017, we received \$242.7 million in cash from Telesat, representing our share of an aggregate approximately \$400 million distribution from Telesat to its shareholders and stock option holders. We intend to use the proceeds of such distribution, net of reasonable reserves for working capital and other liabilities, to make a distribution or return capital to our stockholders. There can be no assurance as to the amount and timing of any such distribution or return of capital, and such distribution or return of capital may be impacted by the outcome of our discussions regarding, and the structure of, the strategic combination transaction that we are pursuing.

Table of Contents

As mentioned above, we have the right under the Telesat Shareholders Agreement to require Telesat to conduct an initial public offering of its equity shares, and, in July 2015, we exercised this right. Specifically, we requested that Telesat issue not more than 25 million newly issued shares of Telesat voting common stock. We also requested the termination of the Shareholders Agreement and the elimination of certain provisions in Telesat's Articles of Incorporation, both of which we believe are important for a successful public offering. If those provisions are eliminated, an impediment to the conversion of our non-voting Telesat shares to voting shares would be eliminated. Termination or modification of the Shareholders Agreement and conversion of our non-voting shares to voting shares would enable us, after a Telesat IPO and subject to the receipt of any necessary regulatory approvals, to obtain majority voting control of Telesat. To date, we and PSP have not reached agreement on governance matters following a Telesat IPO. In the event a transaction to combine Loral and Telesat into one public company that we are pursuing is not likely to be achievable in a timely manner or on satisfactory terms, we may further pursue our right to a Telesat IPO. There can be no assurance as to whether, when or on what terms a Telesat IPO, termination or modification of the Shareholders Agreement or any requested changes to Telesat's Articles of Incorporation may occur or that any particular economic, tax, structural or other objectives or benefits with respect to a Telesat IPO will be achieved. If a Telesat IPO is expected to proceed under unfavorable terms or at an unfavorable price, we may withdraw our demand for a Telesat IPO.

Depending upon the outcome of the strategic initiatives discussed above, we may assert certain claims against PSP for actions we believe violated our rights relating to the affairs of Telesat under the Telesat Shareholders Agreement and otherwise. In response to our claims, PSP has informed us that it believes that it may have claims against us, although we are not aware of the legal or factual basis for any such claims. We and PSP have agreed that, pending the outcome of our discussions relating to Telesat, it would be beneficial to delay the commencement of any action relating to either party's claims and have entered into an agreement (the "Tolling Agreement") which preserves the parties' rights to assert against one another legal claims relating to Telesat. We also included Telesat as a party to the Tolling Agreement because, as a technical matter of Canadian law and for purposes of potentially seeking equitable relief, Telesat may be a necessary party. There can be no assurance that if the Tolling Agreement lapses that we and PSP will not pursue legal claims against one another relating to Telesat. If we pursue claims against PSP, there can be no assurance that our claims will be successful or that the relief we seek will be granted. If PSP pursues claims against us, there can be no assurance that PSP will not prevail on its claims.

Loral may, from time to time, explore and evaluate other possible strategic transactions and alliances which may include joint ventures and strategic relationships as well as business combinations or the acquisition or disposition of assets. In order to pursue certain of these opportunities, additional funds are likely to be required. There can be no assurance that we will enter into additional strategic transactions or alliances, nor do we know if we will be able to obtain the necessary financing for transactions that require additional funds on favorable terms, if at all.

In connection with the acquisition of our ownership interest in Telesat in 2007, Loral has agreed that, subject to certain exceptions described in the Shareholders Agreement, for so long as Loral has an interest in Telesat, it will not compete in the business of leasing, selling or otherwise furnishing fixed satellite service, broadcast satellite service or audio and video broadcast direct to home service using transponder capacity in the C-band, Ku-band and Ka-band (including in each case extended band) frequencies and the business of providing end-to-end data solutions on networks comprised of earth terminals, space segment, and, where appropriate, networking hubs.



Table of Contents

## Consolidated Operating Results

Please refer to Critical Accounting Matters set forth below in this section.

## 2018 Compared with 2017

The following compares our consolidated results for 2018 and 2017 as presented in our financial statements:

## General and Administrative Expenses

	Year Ended December 31,	
	2018	2017
	(In thousands)	
General and administrative expenses	\$ 6,534	\$ 7,044

General and administrative expenses decreased by \$0.5 million for the year ended December 31, 2018 as compared to the year ended December 31, 2017 primarily from lower professional fees during the year ended December 31, 2018.

## Interest and Investment Income

	Year Ended December 31,	
	2018	2017
	(In thousands)	
Interest and investment income	\$ 4,746	\$ 2,483

Interest and investment income increased by \$2.3 million for the year ended December 31, 2018 as compared to the year ended December 31, 2017 primarily due to interest income earned on the cash distribution of \$242.7 million for the full year in 2018 compared with a partial year in 2017 and higher interest rates earned on investments during 2018 as compared to 2017.

## Other Expense

	Year Ended December 31,	
	2018	2017
	(In thousands)	
Other expense	\$ 3,445	\$ 4,182

Other expense for the year ended December 31, 2018 was primarily comprised of expenses related to the evaluation of strategic initiatives. See Overview – General. Other expense for the year ended December 31, 2017 was primarily related to strategic initiatives and settlement and litigation expenses resulting from certain arbitration and legal proceedings with our former Russian joint venture partner.

Income Tax Provision

	Year Ended December 31,	
	2018	2017
	(In thousands)	
Income tax benefit (provision)	\$ 39,348	\$ (73,108)

For 2018, we recorded a current tax benefit of \$48.4 million and a deferred tax provision of \$9.1 million, resulting in a net tax benefit of \$39.3 million. For 2017, we recorded a current tax benefit of \$7.1 million and a deferred tax provision of \$80.2 million, resulting in a net tax provision of \$73.1 million.

## Table of Contents

The deferred tax provision for each period included the impact of equity in net (loss) income of affiliates in our consolidated statement of operations. For 2018, after utilization of our NOL carryforward, there was no federal income tax on Global Intangible Low-Taxed Income (“GILTI”) from Telesat.

For each period presented, the statute of limitations for the assessment of additional tax expired with regard to several of our federal and state uncertain tax positions (“UTPs”) and certain other UTPs were settled. As a result, the reduction to our liability for UTPs provided a current tax benefit including the reversal of previously recognized interest and penalties, partially offset by additional provisions for the potential payment of interest on our remaining UTPs and, in 2017, unrecognized tax benefits.

On December 22, 2017, Public Law 115-97, known as the “Tax Cuts and Jobs Act” was signed into law. The Tax Cuts and Jobs Act made broad and complex changes to the U.S tax code, such as the imposition of a one-time transition tax in 2017 on certain unrepatriated earnings of controlled foreign corporations, including Telesat, and numerous changes first effective in 2018 including, but not limited to, (1) reducing the U.S. federal corporate income tax rate from 35 percent to 21 percent; (2) eliminating U.S federal income taxes on dividends from certain foreign investments, such as Telesat; (3) requiring a current inclusion in U.S. federal taxable income of certain earnings of controlled foreign corporations, including Telesat, as part of GILTI; (4) limiting the use of FTCs to reduce U.S. federal tax liability; (5) eliminating the corporate alternative minimum tax (“AMT”) and changing how AMT credit carryovers can be realized; (6) creating the base erosion anti-abuse tax, a new minimum tax; (7) creating a new limit on deductible interest expense; and (8) changing the rules related to the use of NOL carryforwards created in tax years beginning after December 31, 2017. In accordance with the Securities and Exchange Commission Staff Accounting Bulletin No. 118, Income Tax- Accounting Implication of the Tax Cuts and Job Act (“SAB 118”), we recognized the income tax effects of the Tax Cuts and Jobs Act in our 2017 and 2018 consolidated financial statements. As of December 31, 2017, we reduced deferred tax assets by \$33.2 million related to the tax rate reduction with a corresponding increase to our deferred income tax provision and increased non-current income taxes receivable by \$1.6 million related to refundable AMT credits with a corresponding reduction to deferred tax assets. During 2018, the U.S. Treasury and Internal Revenue Service issued additional regulatory guidance on various provisions of the Tax Cuts and Jobs Act. Based upon our interpretation of this guidance, we determined that, after the utilization of FTCs, federal income tax imposed on the future recognition of GILTI from Telesat will be zero. Since we anticipate that our deferred tax assets related to the investment in Telesat will be realized from the future recognition of GILTI, the federal portion of these deferred tax assets should be valued at zero. Therefore, as of December 31, 2018, we reduced deferred tax assets by an additional \$1.5 million with a corresponding increase to our deferred income tax provision.

The current tax provision for the year ended December 31, 2017 included our anticipated income tax liability related to the cash distribution received from Telesat after use of AMT credits and NOL carryforwards and FTCs from Telesat. In 2018, we completed our tax study to determine the allowable amount of FTCs that could be utilized to minimize our cash tax liability and adjusted our deferred tax asset for the carryforward of unused FTCs to \$109.6 million. Since, at the current time, sufficient positive evidence does not exist to support full recovery of the FTC carryforward, we have a full valuation allowance against this deferred tax asset.

Subsequent to the sale of SSL, to the extent that profitability from operations is not sufficient to realize the benefit from our remaining net deferred tax assets, we would generate sufficient taxable income from the appreciated value of our Telesat investment in order to prevent federal net operating losses from expiring and realize the benefit of all remaining deferred tax assets.

See Critical Accounting Matters — Taxation below for discussion of our accounting method for income taxes.



Table of Contents

## Equity in Net (Loss) Income of Affiliates

	Year Ended December 31,	
	2018	2017
	(In thousands)	
Telesat	\$ (24,412)	\$ 216,347

The following is a reconciliation of the changes in our investment in Telesat for the years ended December 31, 2018 and 2017:

	Year Ended December 31,		2017	
	2018			
	(In thousands)			
Opening Balance, January 1,		\$ 53,430		\$ 107,950
Less: Cash distribution received		—		(242,735)
Components of equity in net (loss) income of Telesat:				
Equity in net (loss) income of Telesat	\$ (25,603)		\$ 212,001	
Eliminations of affiliate transactions and related amortization	1,191	(24,412)	4,346	216,347
Components of equity in other comprehensive income (loss) of Telesat:				
Equity in other comprehensive income (loss) of Telesat		22,033		(28,132)
Cumulative effect adjustment of accounting change (1)		(26,477)		—
Ending balance, December 31,		\$ 24,574		\$ 53,430

(1) On January 1, 2018, Telesat adopted Accounting Standards Codification (“ASC”) 606, Revenue from Contracts with Customers, for its U.S. GAAP reporting which we use to record our equity in net income or loss of Telesat. Telesat adopted the new guidance using the modified retrospective approach with a cumulative effect adjustment to reduce Telesat’s retained earnings by \$42.2 million. As a result, we recorded our share of the cumulative effect adjustment of \$26.5 million by reducing our investment in Telesat. Comparative summary financial information of Telesat presented below has not been restated and continues to be reported under the accounting standards in effect for those periods presented.

As of December 31, 2018, we held a 62.7% economic interest and a 32.6% voting interest in Telesat. Loral’s equity in net income of Telesat is based on our proportionate share of Telesat’s results in accordance with U.S. GAAP and in U.S. dollars. The amortization of Telesat fair value adjustments applicable to the Loral Skynet assets and liabilities acquired by Telesat in 2007 is proportionately eliminated in determining our share of the net income or loss of Telesat. Our equity in net income or loss of Telesat also reflects amortization of profits eliminated, to the extent of our economic interest in Telesat, on satellites we constructed for Telesat while we owned SSL and on Loral’s sale to Telesat in April 2011 of its portion of the payload on the ViaSat 1 satellite and related assets.



Table of Contents

Summary financial information for Telesat in accordance with U.S. GAAP in Canadian dollars and U.S. dollars for the years ended and as of December 31, 2018 and 2017 follows (in thousands):

	Year Ended December 31,		Year Ended December 31,	
	2018	2017	2018	2017
	(In Canadian dollars)		(In U.S. dollars)	
Statement of Operations Data:				
Revenues	902,932	927,771	699,596	712,390
Operating expenses	(177,335)	(198,161)	(137,400)	(152,157)
Depreciation, amortization and stock-based compensation	(265,165)	(252,917)	(205,451)	(194,203)
Insurance proceeds	—	6,171	—	4,739
Other operating income (expense)	743	(269)	576	(207)
Operating income	461,175	482,595	357,321	370,562
Interest expense	(228,281)	(197,340)	(176,873)	(151,528)
Foreign exchange (loss) gain	(262,008)	225,868	(203,005)	173,433
Gain (loss) on financial instruments	20,386	(4,579)	15,795	(3,516)
Other income	14,629	4,679	11,335	3,592
Income tax provision	(58,625)	(70,879)	(45,423)	(54,424)
Net (loss) income	(52,724)	440,344	(40,850)	338,119
Average exchange rate for translating Canadian dollars to U.S. dollars (1 U.S. dollar equals)	1.2912	1.3036		

	December 31,		December 31,	
	2018	2017	2018	2017
	(In Canadian dollars)		(In U.S. dollars)	
Balance Sheet Data:				
Current assets	856,575	559,540	628,125	445,104
Total assets	5,376,860	5,132,075	3,942,847	4,082,472
Current liabilities	190,100	158,520	139,401	126,100
Long-term debt, including current portion	3,770,084	3,557,481	2,764,599	2,829,911
Total liabilities	4,738,181	4,448,443	3,474,504	3,538,656
Shareholders' equity	638,679			