

**Intelsat S.A.**  
Consolidated Financial Statements

For the year ended December 31, 2018  
(With the report of the Réviseur d'Entreprises agréé thereon)

4, rue Albert Borschette  
L-1246 Luxembourg  
RCS Luxembourg B162.135

**Intelsat S.A.**  
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**KPMG Luxembourg, Société coopérative**  
39, Avenue John F. Kennedy  
L - 1855 Luxembourg

Tel.: +352 22 51 51 1  
Fax: +352 22 51 71  
E-mail: info@kpmg.lu  
Internet: www.kpmg.lu

To the Shareholders of  
Intelsat S.A.  
4, rue Albert Borschette  
L-1246 Luxembourg

## REPORT OF THE REVISEUR D'ENTREPRISES AGREE

### *Report on the audit of the consolidated financial statements*

#### **Opinion**

We have audited the consolidated financial statements of Intelsat S.A. and its subsidiaries (the "Group"), which comprise the consolidated balance sheet as at December 31, 2018 and the consolidated statements of operations, comprehensive income (loss), changes in Shareholders' deficit and cash flows for the year then ended, and a summary of significant accounting policies and other explanatory information.

In our opinion, the consolidated financial statements give a true and fair view of the consolidated financial position of Intelsat S.A. as of December 31, 2018, and of its consolidated financial performance and its consolidated cash flows for the year then ended in accordance with U.S. generally accepted accounting principles.

#### **Basis for Opinion**

We conducted our audit in accordance with the Law of July 23, 2016 on the audit profession ("Law of July 23, 2016") and with International Standards on Auditing ("ISAs") as adopted for Luxembourg by the "Commission de Surveillance du Secteur Financier" ("CSSF"). Our responsibilities under the Law of July 23, 2016 and ISAs are further described in the « Responsibilities of "Réviseur d'Entreprises agréé" for the audit of the consolidated financial statements » section of our report. We are also independent of the Group in accordance with the International Ethics Standards Board for Accountants' Code of Ethics for Professional Accountants ("IESBA Code") as adopted for Luxembourg by the CSSF together with the ethical requirements that are relevant to our audit of the consolidated financial statements, and have fulfilled our other ethical responsibilities under those ethical requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

#### **Other information**

The Board of Directors is responsible for the other information. The other information comprises the information stated in the consolidated annual report including the consolidated management report but does not include the consolidated financial statements and our report of "Réviseur d'Entreprises agréé" thereon.

Our opinion on the consolidated financial statements does not cover the other information and we do not express any form of assurance conclusion thereon.



In connection with our audit of the consolidated financial statements, our responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the consolidated financial statements or our knowledge obtained in the audit or otherwise appears to be materially misstated. If, based on the work we have performed, we conclude that there is a material misstatement of this other information we are required to report this fact. We have nothing to report in this regard.

***Responsibilities of the Board of Directors and Those Charged with Governance for the consolidated financial statements***

The Board of Directors is responsible for the preparation and fair presentation of the consolidated financial statements in accordance with U.S. generally accepted accounting principles, and for such internal control as the Board of Directors determines is necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the consolidated financial statements, the Board of Directors is responsible for assessing the Group's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless the Board of Directors either intends to liquidate the Group or to cease operations, or has no realistic alternative but to do so.

Those charged with governance are responsible for overseeing the Group's financial reporting process.

***Responsibilities of the Réviseur d'Entreprises agréé for the audit of the consolidated financial statements***

The objectives of our audit are to obtain reasonable assurance about whether the consolidated financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue a report of "Réviseur d'Entreprises agréé" that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with the Law of 23 July 2016 and with ISAs as adopted for Luxembourg by the CSSF will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these consolidated financial statements.

As part of an audit in accordance with the Law of 23 July 2016 and with ISAs as adopted for Luxembourg by the CSSF, we exercise professional judgment and maintain professional skepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the consolidated financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.

- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Group's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by the Board of Directors.
- Conclude on the appropriateness of Board of Directors' use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Group's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our report of "Réviseur d'Entreprises agréé" to the related disclosures in the consolidated financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our report of "Réviseur d'Entreprises agréé". However, future events or conditions may cause the Group to cease to continue as a going concern.
- Evaluate the overall presentation, structure and content of the consolidated financial statements, including the disclosures, and whether the consolidated financial statements represent the underlying transactions and events in a manner that achieves fair presentation.
- Obtain sufficient appropriate audit evidence regarding the financial information of the entities and business activities within the Group to express an opinion on the consolidated financial statements. We are responsible for the direction, supervision and performance of the Group audit. We remain solely responsible for our audit opinion.

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.


We also provide those charged with governance with a statement that we have complied with relevant ethical requirements regarding independence, and to communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, related safeguards.

***Report on other legal and regulatory requirements***

The consolidated management report is consistent with the consolidated financial statements and has been prepared in accordance with the applicable legal requirements.

Luxembourg, April 26, 2019

KPMG Luxembourg  
Société coopérative  
Cabinet de révision agréé



Fabien Hedouin

**Intelsat S.A.**  
**Management report – Business Review**

For the year ended December 31, 2018

**Background**

Intelsat S.A. (the “Company”, “we”, “us” or “our”) provides satellite communications services worldwide through a global communications network of 54 satellites and ground facilities related to the satellite operations and control, and teleport services.

**Business overview**

As of December 31, 2018, our contracted backlog, which is our expected future revenue under existing customer contracts, was approximately \$8.1 billion, roughly four times our 2018 annual revenue. For the year ended December 31, 2018, we generated revenue of \$2.2 billion and net loss attributable to Intelsat S.A. of \$599.6 million. Our Adjusted EBITDA, which consists of EBITDA as adjusted to exclude or include certain unusual items, certain other operating expense items and certain other adjustments, was \$1.7 billion, or 77% of revenue, for the year ended December 31, 2018.

In 2018, we continued to experience pricing pressure, but at a slower rate of decline than experienced in earlier periods, particularly in certain regions and applications. In addition, underlying trends in our media business resulted in lower renewal rates and new business capture. Overall, we believe we benefit from a number of characteristics that allow us to effectively manage our business despite these competitive and geo-economic pressures:

- Significant long-term contracted backlog, providing a foundation for predictable revenue streams;
- The entry into service of our next generation Intelsat Epic<sup>NG</sup> platform. Our Intelsat Epic<sup>NG</sup> platform was designed to support new services representing \$4.5 billion of potential incremental growth by 2023 from expanded enterprise, wireless infrastructure, mobility, IoT and government applications;
- High operating leverage, which has allowed us to generate an average Adjusted EBITDA margin of 77% in the past three years; and
- A stable, efficient and sustainable tax profile for our global business.

We believe that the Company and its subsidiaries on a consolidated basis have the largest, most reliable and most technologically advanced commercial communications network in the world. Our global communications system features a fleet of 54 geosynchronous satellites as of December 31, 2018 that covers more than 99% of the world’s populated regions. Our satellites primarily provide services in the C- and Ku-band frequencies, which form the largest part of the fixed satellite services (“FSS”) sector.

We believe that our leadership position in our attractive sector, global scale, efficient operating and financial profile, diversified customer sets and sizeable contracted backlog, together with the growing worldwide demand for reliable broadband connectivity everywhere at all times, provide us together with our subsidiaries a platform for long-term success.

**Results of Operations**

***Years Ended December 31, 2017 and 2018***

***Income from Operations***

In 2018 our income from operations was \$0.9 billion, unchanged from 2017.

## Revenue

Effective January 1, 2018, we adopted Financial Accounting Standards Board Accounting Standards Codification ASU 2014-09, Revenue from Contracts with Customers (Topic 606) ("ASC 606"), using the modified retrospective method. Years prior to 2018 do not reflect the effects from our January 1, 2018 adoption of ASC 606.

The following table sets forth our revenue by service type for the years ended December 31, 2017 and 2018 (in thousands):

	Year Ended December 31, 2018							
	Year Ended December 31, 2017	Revenues Without the Adoption of ASC 606	ASC 606 Adjustments	Revenues After the Adoption of ASC 606	Increase (Decrease) With Adoption of ASC 606	Percentage Change With Adoption of ASC 606	Increase (Decrease) Without Adoption of ASC 606	Percentage Change Without Adoption of ASC 606
<b>On-Network</b>								
Transponder services	\$ 1,543,384	\$ 1,475,247	\$ 95,031	\$ 1,570,278	\$ 26,894	2%	\$ (68,137)	(4)%
Managed services	412,147	386,597	6,667	393,264	(18,883)	(5)	(25,550)	(6)
Channel	5,405	4,250	—	4,250	(1,155)	(21)	(1,155)	(21)
Total on-network revenues	1,960,936	1,866,094	101,698	1,967,792	6,856	—	(94,842)	(5)
<b>Off-Network and Other Revenues</b>								
Transponder, MSS and other off-network services	141,845	148,807	1,379	150,186	8,341	6	6,962	5
Satellite-related services	45,831	43,082	130	43,212	(2,619)	(6)	(2,749)	(6)
Total off-network and other revenues	187,676	191,889	1,509	193,398	5,722	3	4,213	2
Total	\$ 2,148,612	\$ 2,057,983	\$ 103,207	\$ 2,161,190	\$ 12,578	1%	\$ (90,629)	(4)%

## Interest Expense, Net

Interest expense, net consists of gross interest expense we incur together with gains and losses on interest rate cap contracts (which reflect the change in their fair value), offset by interest income earned and the amount of interest we capitalize related to assets under construction. As of December 31, 2018, we held interest rate cap contracts with an aggregate notional amount of \$2.4 billion to mitigate the risk of interest rate increases on the floating-rate term loans under our senior secured credit facilities. The caps have not been designated as hedges for accounting purposes.

For the year ended December 31, 2018, interest expense, net was \$1.2 billion as compared to \$1.0 billion for the year ended December 31, 2017. The increase was mostly due to the significant financing component identified in customer contracts in accordance with ASC 606, as well as our new debt issuances and amendments with higher interest rates, partially offset by certain debt repurchases and exchanges in 2018.

## Loss on Early Extinguishment of Debt

Loss on early extinguishment of debt was \$199.7 million for the year ended December 31, 2018, as compared to a loss of \$4.1 million for the year ended December 31, 2017. The losses were related to certain debt transactions that occurred during each of the respective years.

## Key performance indicators

### EBITDA

EBITDA consists of earnings before net interest, loss (gain) on early extinguishment of debt, taxes and depreciation and amortization. Given our high level of leverage, refinancing activities are a frequent part of our efforts to manage our costs of borrowing. Accordingly, we consider loss (gain) on early extinguishment of U.S. generally accepted accounting principles (“U.S. GAAP”) debt an element of interest expense. EBITDA is a measure commonly used in the FSS sector, and we present EBITDA to enhance the understanding of our operating performance. We use EBITDA as one criterion for evaluating our performance relative to that of our peers. We believe that EBITDA is an operating performance measure, and not a liquidity measure, that provides investors and analysts with a measure of operating results unaffected by differences in capital structures, capital investment cycles and ages of related assets among otherwise comparable companies. However, EBITDA is not a measure of financial performance under U.S. GAAP, and our EBITDA may not be comparable to similarly titled measures of other companies. EBITDA should not be considered as an alternative to operating income (loss) or net income (loss) determined in accordance with U.S. GAAP, as an indicator of our operating performance, or as an alternative to cash flows from operating activities determined in accordance with U.S. GAAP, as an indicator of cash flows, or as a measure of liquidity.

A reconciliation of net income (loss) to EBITDA for the periods shown is as follows (in thousands):

	Year Ended December 31, 2017	Year Ended December 31, 2018
Net loss	\$ (174,814)	\$ (595,690)
Add (Subtract):		
Interest expense, net <sup>(1)</sup>	1,020,770	1,212,374
Loss on early extinguishment of debt	4,109	199,658
Provision for income taxes <sup>(2)</sup>	71,130	130,069
Depreciation and amortization	707,824	687,589
EBITDA	<u>1,629,019</u>	<u>1,634,000</u>
Effect of ASC 606 adoption <sup>(3)</sup>	<u>—</u>	<u>(103,447)</u>
EBITDA excluding ASC 606 adoption effect	<u>\$ 1,629,019</u>	<u>\$ 1,530,553</u>

- (1) Interest expense, net for the twelve months ended December 31, 2018 includes \$116,190 related to the significant financing component identified in customer contracts in accordance with ASC 606.
- (2) Includes a provision of \$43,349 for the twelve months ended December 31, 2018 related to the adoption of ASC 606 and implementation of a series of internal transactions and related steps that reorganized the ownership of certain of our assets among our subsidiaries in order to enhance our ability to efficiently transact business.
- (3) Includes \$103,207 of revenue relating to the significant financing, multi-product, and contract modification components identified in customer contracts for the twelve months ended December 31, 2018, operating expense adjustments of \$1,028 for the twelve months ended December 31, 2018, and adjustments of \$788 to other income, net for the twelve months ended December 31, 2018, in accordance with the adoption of ASC 606.

### Contracted Backlog

We benefit from strong visibility of our future revenues. Our contracted backlog is our expected future revenue under existing customer contracts, and includes both cancellable and non-cancellable contracts. As of December 31, 2018, our contracted backlog was approximately \$8.1 billion after the adoption of ASC 606 and \$7.1 billion excluding the impact of the adoption of ASC 606. Referring to contracted backlog including the adoption of ASC 606, approximately 88% of this backlog related to contracts that were non-cancellable and approximately 11% related to contracts that were cancellable subject to substantial termination fees. As of December 31, 2018, the weighted average remaining customer contract life was approximately 4.5 years. We expect to deliver services associated with approximately \$1.8 billion, or approximately 22%, of our December 31, 2018 contracted backlog during the year ending December 31, 2019. The amount included in backlog represents the full service charge for the duration of the contract and does not include termination fees. The amount of the termination fees, which is not included in the backlog amount, is generally calculated as a percentage of the remaining backlog associated with the contract. In certain cases of breach for non-payment or customer financial distress or bankruptcy, we may not be able to recover the full value of certain contracts or termination fees. Our contracted backlog includes 100% of the backlog of our consolidated ownership interests, which is consistent with the accounting for our ownership interest in these entities.



Our contracted backlog as of December 31, 2018 was as follows (in millions):

Period	Amount Excluding ASC 606	Amount Including ASC 606
2019	\$ 1,662.0	\$ 1,764.7
2020	1,201.2	1,308.2
2021	856.7	964.3
2022	669.8	778.7
2023	548.6	657.5
2024 and thereafter	2,112.4	2,664.2
Total	\$ 7,050.7	\$ 8,137.6

Our contracted backlog by service type as of December 31, 2018 was as follows (in millions, except percentages):

Service Type	Amount Excluding ASC 606	Percent	Amount Including ASC 606	Percent
Transponder services	\$ 5,693.2	81%	\$ 6,740.1	83%
Managed services	1,126.3	16%	1,166.3	14%
Off-Network and Other	228.7	3%	228.7	3%
Channel	2.5	—%	2.5	—%
Total	\$ 7,050.7	100%	\$ 8,137.6	100%

We believe this backlog and the resulting predictable cash flows in the FSS sector make our net cash provided by operating activities less volatile than that of typical companies outside our industry.

### **Other indicators**

#### *Research and development*

During the year ended December 31, 2018, we incurred expenses of \$1.2 million for development activities. Further, Intelsat personnel regularly engage in activities that are intended to result in new or improved functions, performance, or quality related to our network, teleports and satellites.

#### *Own shares*

The Company does not have any of its own shares.

#### *Financial instruments*

We are exposed to the market risk associated with unfavorable movements in interest rates and foreign currencies. The risk inherent in our market risk sensitive instruments and positions is the potential loss arising from adverse changes in those factors. We do not currently use material foreign currency derivatives to hedge our foreign currency exposures nor we purchase or hold any derivative financial instruments for speculative purposes.

#### *Employees*

Intelsat fully complies with the laws and regulations relating to its employees, provides training and supports career development.

## *Environmental Matters*

Our operations are subject to various laws and regulations relating to the protection of the environment, including those governing the management, storage and disposal of hazardous materials and the cleanup of contamination. As an owner or operator of property and in connection with current and historical operations at some of our sites, we could incur significant costs, including cleanup costs, fines, sanctions and third-party claims, as a result of violations of or liabilities under environmental laws and regulations. For instance, some of our operations require continuous power supply, and, as a result, current and past operations at our teleports and other technical facilities include fuel storage and batteries for back-up power generators. We believe, however, that our operations are in substantial compliance with environmental laws and regulations.

## **Principal risks and uncertainties**

### *Business risks*

We are subject to significant competition from within the FSS sector, from alternative satellite service providers and from other providers of communications capacity, such as fiber optic cable capacity. Competition from other telecommunications providers could have a material adverse effect on our business and could prevent us from implementing our business strategy and expanding our operations as planned.

The market for FSS may not grow or may shrink and therefore we may not be able to attract new customers, retain our existing customers or implement our strategies to grow our business. In addition, pricing pressures may have an adverse impact on FSS sector revenue.

We have a substantial amount of indebtedness, which may adversely affect our cash flow and our ability to operate our business, remain in compliance with debt covenants and make payments on our indebtedness.

To service our third-party indebtedness, we will require a significant amount of cash. Our ability to generate cash depends on many factors beyond our control, and any failure to meet our third-party debt service obligations could harm our business, financial condition and results of operations.

Our business is capital intensive and requires us to make long-term capital expenditure decisions, and we may not be able to raise adequate capital to finance our business strategies, or we may be able to do so only on terms that significantly restrict our ability to operate our business.

Our financial condition could be materially and adversely affected if we were to suffer a satellite loss that is not adequately covered by insurance.

We may become subject to unanticipated tax liabilities that may have a material adverse effect on our results of operations.

We are subject to political, economic, regulatory and other risks due to the international nature of our operations.

We have several large customers and the loss of, or default by, these customers could materially reduce our revenue and materially adversely affect our business.

The loss of the services of key personnel could have a material adverse effect on our business.

### *Industry risks*

We may experience in-orbit satellite failures or degradations in performance that could impair the commercial performance of our satellites, which could lead to lost revenue, an increase in our cash operating expenses, lower operating income or lost backlog.

We may experience a launch failure or other satellite damage or destruction during launch, which could result in a total or partial satellite loss. A new satellite could also fail to achieve its designated orbital location after launch. Any such loss of a satellite could negatively impact our business plans and could reduce our revenue.

***Regulatory risks***

We are subject to orbital slot and spectrum access requirements of the International Telecommunication Union and regulatory and licensing requirements in each of the countries in which we provide services, and our business is sensitive to regulatory changes internationally and in those countries.

If we do not maintain regulatory authorizations for our existing satellites and associated ground facilities or obtain authorizations for our future satellites and associated ground facilities, we may not be able to operate our existing satellites or expand our operations.

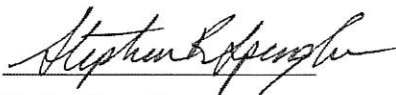
If we do not occupy unused orbital locations by specified deadlines, or do not maintain satellites in orbital locations we currently use, those orbital locations may become available for other satellite operators to use.

Coordination results may adversely affect our ability to use a satellite at a given orbital location for our proposed service or coverage area.

We can provide no assurance as to the likelihood of the U.S. Federal Communications Commission's acceptance of the various facets of our proposal that would enable joint use of a portion of C-band spectrum in the U.S. by FSS operators and terrestrial mobile service providers, or as to the actual timing of a final ruling. In addition, even if a final ruling were to be issued that adopted our proposal, we can provide no assurances as to our ability to effectuate agreements to make C-band spectrum available for 5G in the United States or the amount we would receive in such transactions. Furthermore, there are a number of technical challenges to making C-band spectrum available.

If we do not maintain required security clearances from, and comply with our agreements with, the U.S. Department of Defense, or if we do not comply with U.S. law, we may not be able to continue to perform our obligations under U.S. government contracts.

Additional risks not currently known by us, or that are currently believed to be immaterial, also may materially adversely affect our business, financial condition or results of operations in the future.



Stephen Spengler  
*Chief Executive Officer*



Jacques Kerrest  
*Executive Vice President &  
Chief Financial Officer*

INTELSAT S.A.

**CONSOLIDATED BALANCE SHEETS**

(in thousands, except per share amounts)

	<u>December 31,</u> <u>2017</u>	<u>December 31,</u> <u>2018</u>
<b>ASSETS</b>		
Current assets:		
Cash and cash equivalents	\$ 525,215	\$ 485,120
Restricted cash	16,176	22,037
Receivables, net of allowances of \$29,669 in 2017 and \$28,542 in 2018	221,223	271,393
Contract assets	—	45,034
Prepaid expenses and other current assets	<u>56,862</u>	<u>24,075</u>
Total current assets	819,476	847,659
Satellites and other property and equipment, net	5,923,619	5,511,702
Goodwill	2,620,627	2,620,627
Non-amortizable intangible assets	2,452,900	2,452,900
Amortizable intangible assets, net	349,584	311,103
Contract assets, net of current portion	—	96,108
Other assets	<u>443,830</u>	<u>401,414</u>
Total assets	<u>\$ 12,610,036</u>	<u>\$ 12,241,513</u>
<b>LIABILITIES AND SHAREHOLDERS' DEFICIT</b>		
Current liabilities:		
Accounts payable and accrued liabilities	\$ 116,396	\$ 108,101
Taxes payable	12,007	5,679
Employee related liabilities	29,328	29,696
Accrued interest payable	263,207	284,649
Current portion of long-term debt	96,572	—
Contract liabilities	—	137,746
Deferred satellite performance incentives	25,780	35,261
Deferred revenue	149,749	—
Other current liabilities	<u>47,287</u>	<u>59,080</u>
Total current liabilities	740,326	660,212
Long-term debt, net of current portion	14,112,086	14,028,352
Contract liabilities, net of current portion	—	1,131,319
Deferred satellite performance incentives, net of current portion	215,352	210,346
Deferred revenue, net of current portion	794,707	—
Deferred income taxes	48,434	82,488
Accrued retirement benefits	191,079	133,735
Other long-term liabilities	296,616	77,670
Shareholders' deficit:		
Common shares; nominal value \$0.01 per share	1,196	1,380
Paid-in capital	2,173,367	2,551,471
Accumulated deficit	(5,894,659)	(6,606,426)
Accumulated other comprehensive loss	<u>(87,774)</u>	<u>(43,430)</u>
Total Intelsat S.A. shareholders' deficit	(3,807,870)	(4,097,005)
Noncontrolling interest	<u>19,306</u>	<u>14,396</u>
Total liabilities and shareholders' deficit	<u>\$ 12,610,036</u>	<u>\$ 12,241,513</u>

See accompanying notes to consolidated financial statements.

INTELSAT S.A.

CONSOLIDATED STATEMENTS OF OPERATIONS

(in thousands, except per share amounts)

	Year Ended December 31, 2016	Year Ended December 31, 2017	Year Ended December 31, 2018
Revenue	\$ 2,188,047	\$ 2,148,612	\$ 2,161,190
Operating expenses:			
Direct costs of revenue (excluding depreciation and amortization)	342,634	324,232	330,874
Selling, general and administrative	232,537	205,475	200,857
Depreciation and amortization	694,891	707,824	687,589
Total operating expenses	<u>1,270,062</u>	<u>1,237,531</u>	<u>1,219,320</u>
Income from operations	917,985	911,081	941,870
Interest expense, net	938,501	1,020,770	1,212,374
Gain (loss) on early extinguishment of debt	1,030,092	(4,109)	(199,658)
Other income, net	522	10,114	4,541
Income (loss) before income taxes	1,010,098	(103,684)	(465,621)
Provision for income taxes	15,986	71,130	130,069
Net income (loss)	994,112	(174,814)	(595,690)
Net income attributable to noncontrolling interest	(3,915)	(3,914)	(3,915)
Net income (loss) attributable to Intelsat S.A.	<u>\$ 990,197</u>	<u>\$ (178,728)</u>	<u>\$ (599,605)</u>
Net income (loss) per common share attributable to Intelsat S.A.:			
Basic	\$ 8.65	\$ (1.50)	\$ (4.63)
Diluted	\$ 8.36	\$ (1.50)	\$ (4.63)

See accompanying notes to consolidated financial statements.

**INTELSAT S.A.**

**CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME (LOSS)**

(in thousands)

	<b>Year Ended December 31, 2016</b>	<b>Year Ended December 31, 2017</b>	<b>Year Ended December 31, 2018</b>
Net income (loss)	\$ 994,112	\$ (174,814)	\$ (595,690)
Other comprehensive income (loss), net of tax:			
Defined benefit retirement plans:			
Reclassification adjustment for amortization of unrecognized prior service credits, net of tax included in other income, net	(5)	21	(839)
Reclassification adjustment for amortization of unrecognized actuarial loss, net of tax included in other income, net	2,223	2,074	4,064
Actuarial gain (loss) arising during the year, net of tax	(177)	(13,896)	2,960
Benefit plan amendment, net of tax of \$0.7 million	—	—	38,510
Marketable securities:			
Unrealized gains on investments, net of tax	285	567	—
Reclassification adjustment for realized gain on investments, net of tax	(192)	(235)	—
Reclassification adjustment for pension assets' gains, net of tax included in other income, net	—	—	(351)
Other comprehensive income (loss)	2,134	(11,469)	44,344
Comprehensive income (loss)	996,246	(186,283)	(551,346)
Comprehensive income attributable to noncontrolling interest	(3,915)	(3,914)	(3,915)
Comprehensive income (loss) attributable to Intelsat S.A.	\$ 992,331	\$ (190,197)	\$ (555,261)

See accompanying notes to consolidated financial statements.

INTELSAT S.A.

CONSOLIDATED STATEMENTS OF CHANGES IN SHAREHOLDERS' DEFICIT  
(in thousands)

	Preferred		Common		Paid-in Capital	Accumulated Deficit	Accumulated Other Comprehensive Loss	Total Intelsat S.A. Shareholders' Deficit	Noncontrolling Interest
	Shares (in millions)	Amount	Shares (in millions)	Amount					
Balance at December 31, 2015	3.5	\$ 35	107.6	\$ 1,076	\$ 2,133,891	\$ (6,706,128)	\$ (78,439)	\$ (4,649,565)	\$ 29,212
Net income	—	—	—	—	—	990,197	—	990,197	3,915
Dividends paid to noncontrolling interests	—	—	—	—	—	—	—	—	(8,980)
Share-based compensation	—	—	0.8	8	23,081	—	—	23,089	—
Preferred shares conversion	(3.5)	(35)	9.6	96	(61)	—	—	—	—
Postretirement/pension liability adjustment, net of tax of \$1.0 million	—	—	—	—	—	—	2,041	2,041	—
Other comprehensive income, net of tax of \$0.2 million	—	—	—	—	—	—	93	93	—
Balance at December 31, 2016	—	\$ —	118.0	\$ 1,180	\$ 2,156,911	\$ (5,715,931)	\$ (76,305)	\$ (3,634,145)	\$ 24,147
Net income (loss)	—	—	—	—	—	(178,728)	—	(178,728)	3,914
Dividends paid to noncontrolling interests	—	—	—	—	—	—	—	—	(8,755)
Share-based compensation	—	—	1.6	16	16,456	—	—	16,472	—
Postretirement/pension liability adjustment, net of tax of (\$3.1) million	—	—	—	—	—	—	(11,801)	(11,801)	—
Other comprehensive income, net of tax of \$0.2 million	—	—	—	—	—	—	332	332	—
Balance at December 31, 2017	—	\$ —	119.6	\$ 1,196	\$ 2,173,367	\$ (5,894,659)	\$ (87,774)	\$ (3,807,870)	\$ 19,306
Net income (loss)	—	—	—	—	—	(599,605)	—	(599,605)	3,915
Dividends paid to noncontrolling interests	—	—	—	—	—	—	—	—	(8,825)
Share-based compensation	—	—	2.9	29	10,006	—	—	10,035	—
Equity offering and 2025 Convertible Notes offering	—	—	15.5	155	368,098	—	—	368,253	—
Postretirement/pension liability adjustment, net of tax of \$0.6 million	—	—	—	—	—	—	6,185	6,185	—
Benefit plan amendment, net of tax of \$0.7 million	—	—	—	—	—	—	38,510	38,510	—
Other comprehensive income, net of tax of (\$0.2) million	—	—	—	—	—	—	(351)	(351)	—
Adoption of ASU 2014-09 (see Note 2— Significant Accounting Policies)	—	—	—	—	—	(281,741)	—	(281,741)	—
Adoption of ASU 2016-16 (see Note 14— Income Taxes)	—	—	—	—	—	169,579	—	169,579	—
Balance at December 31, 2018	—	\$ —	138.0	\$ 1,380	\$ 2,551,471	\$ (6,606,426)	\$ (43,430)	\$ (4,097,005)	\$ 14,396

See accompanying notes to consolidated financial statements.

INTELSAT S.A.

CONSOLIDATED STATEMENTS OF CASH FLOWS

(in thousands)

	Year Ended December 31, 2016	Year Ended December 31, 2017	Year Ended December 31, 2018
<b>Cash flows from operating activities:</b>			
Net income (loss)	\$ 994,112	\$ (174,814)	\$ (595,690)
Adjustments to reconcile net income (loss) to net cash provided by operating activities:			
Depreciation and amortization	694,891	707,824	687,589
Provision for (benefit from) doubtful accounts	24,591	(4,094)	(836)
Foreign currency transaction (gain) loss	(3,300)	(876)	6,736
Loss on disposal of assets	20	45	46
Share-based compensation	23,222	15,995	6,824
Deferred income taxes	(9,737)	43,931	79,160
Amortization of discount, premium, issuance costs and related costs	24,622	48,696	48,495
(Gain) loss on early extinguishment of debt	(1,030,092)	4,109	199,658
Unrealized (gains) losses on derivative financial instruments	(764)	275	(14,685)
Amortization of actuarial loss and prior service credits for retirement benefits	3,361	3,287	3,823
Other non-cash items	220	(287)	1,178
Changes in operating assets and liabilities:			
Receivables	6,478	(14,333)	(63,814)
Prepaid expenses, contract and other assets	(51,388)	(24,760)	3,708
Accounts payable and accrued liabilities	35,850	(42,337)	7,291
Accrued interest payable	43,347	58,367	21,442
Deferred revenue and contract liabilities	(58,796)	(134,577)	(39,763)
Accrued retirement benefits	(9,385)	(13,422)	(15,902)
Other long-term liabilities	(8,497)	(8,783)	8,913
Net cash provided by operating activities	<u>678,755</u>	<u>464,246</u>	<u>344,173</u>
<b>Cash flows from investing activities:</b>			
Payments for satellites and other property and equipment (including capitalized interest)	(714,570)	(461,627)	(255,696)
Purchase of investments	(4,000)	(25,744)	(19,000)
Capital contribution to unconsolidated affiliate	(12,019)	(30,714)	(48,097)
Proceeds from insurance settlements	—	49,788	20,409
Other proceeds from satellites	—	—	18,750
Net cash used in investing activities	<u>(730,589)</u>	<u>(468,297)</u>	<u>(283,634)</u>
<b>Cash flows from financing activities:</b>			
Proceeds from issuance of long-term debt	1,730,200	1,500,000	4,585,875
Repayments of long-term debt	(791,944)	(1,500,000)	(4,782,451)
Debt issuance costs	(48,900)	(41,237)	(49,436)
Debt modification fees	—	—	(3,954)
Proceeds from stock issuance, net of issuance costs	—	—	224,250
Payment of premium on early extinguishment of debt	(32)	—	(33,890)
Payments on tender, debt exchange and consent	(293,276)	(14)	—
Dividends paid to preferred shareholders	(4,959)	—	—
Other payments for satellites	(18,333)	(35,396)	—
Principal payments on deferred satellite performance incentives	(17,429)	(37,186)	(25,488)
Dividends paid to noncontrolling interest	(8,980)	(8,755)	(8,825)
Proceeds from exercise of employee stock options	—	476	3,211
Other financing activities	—	414	385
Net cash provided by (used in) financing activities	<u>546,347</u>	<u>(121,698)</u>	<u>(90,323)</u>
Effect of exchange rate changes on cash and cash equivalents	(30)	1,116	(4,450)
Net change in cash, cash equivalents and restricted cash	494,483	(124,633)	(34,234)
Cash, cash equivalents and restricted cash, beginning of period	171,541	666,024	541,391
Cash, cash equivalents and restricted cash, end of period	<u>\$ 666,024</u>	<u>\$ 541,391</u>	<u>\$ 507,157</u>



**Supplemental cash flow information:**

Interest paid, net of amounts capitalized	\$	870,370	\$	915,627	\$	1,052,885
Income taxes paid, net of refunds		22,687		33,731		57,085

**Supplemental disclosure of non-cash investing activities:**

Accrued capital expenditures and payments for satellites	\$	127,008	\$	38,450	\$	28,203
Capitalization of deferred satellite performance incentives		69,909		44,445		28,161

**Supplemental disclosure of non-cash financing activities:**

Repayments of long-term debt	\$	1,468,401	\$	—	\$	—
Issuance of long-term debt		(731,884)		—		—
Discount on long-term debt		212,660		—		—
Write-off of debt issuance costs		(9,253)		—		—

See accompanying notes to consolidated financial statements.

## INTELSAT S.A.

### NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

#### Note 1 Background of Company

Intelsat S.A. (the “Company”, “we”, “us” or “our”) provides satellite communications services worldwide through a global communications network of 54 satellites and ground facilities related to the satellite operations and control, and teleport services.

#### Note 2 Significant Accounting Policies

##### *(a) Principles of Consolidation*

The consolidated financial statements have been prepared in conformity with accounting principles generally accepted in the United States of America (“U.S. GAAP”), in accordance with a derogation pursuant to Article 27 of the amended law of 19 December 2002 obtained from the Ministry of Justice. A reconciliation of shareholders’ equity and result for the period with International Financial Reporting Standards as adopted by the European Union (“IFRS”) is included in Note 20—Reconciliation with IFRS.

The accompanying consolidated financial statements include the accounts of Intelsat S.A., its wholly-owned subsidiaries, and variable interest entities (“VIE”) of which we are the primary beneficiary. We are the primary beneficiary of one VIE, as more fully described in Note 10—Investments, and accordingly, we include in our consolidated financial statements the assets and liabilities and results of operations of the entity, even though we may not own a majority voting interest. We use the equity method to account for our investments in entities where we exercise significant influence over operating and financial policies but do not retain control under either the voting interest model (generally 20% to 50% ownership interest) or the variable interest model. In 2015, we entered into a joint venture agreement as further described in Note 10—Investments, and the investment is accounted for using the equity method. We have eliminated all significant intercompany accounts and transactions.

##### *(b) Use of Estimates*

The preparation of financial statements in conformity with U.S. GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities as of the date of the financial statements, the reported amounts of revenues and expenses during the reporting periods, and the disclosures of contingent liabilities. Accordingly, ultimate results could differ from those estimates.

##### *(c) Revenue Recognition*

###### *Revenue from Contracts with Customers*

We earn revenue primarily by providing services over satellite transponder capacity to our customers. Our customers generally obtain satellite services from us by placing an order pursuant to one of several master customer service agreements and related service orders. The service agreements specify, among other things, the amount of satellite bandwidth or throughput to be provided, whether service will be non-pre-emptible or pre-emptible and the service term. Most services are full time in nature, with service terms ranging from one year to as long as 16 years. Occasional use services used for video applications can be for much shorter periods, including as small as increments of one hour. Our service agreements offer different service types, including transponder services, managed services, and channel, which are all services that are provided on, or used to provide access to, our global network. We refer to these services as on-network services. Our service agreements also cover services that we procure from third parties and resell, which we refer to as off-network services. These services can include transponder services and other satellite-based transmission services sourced from other operators, often in frequencies not available on our network.

To determine the proper revenue recognition method for contracts, we evaluate whether two or more services should be combined and accounted for as a single performance obligation. Our specific revenue recognition policies are as follows:

*Satellite Utilization Charges.* The Company's contracts for satellite utilization services often contain multiple service orders for the provision of capacity on or over different beams, satellites, frequencies, geographies or time periods. Under each separate service order, the Company's satellite services, comprised of transponder services, managed services, channel services, and occasional use managed services, are delivered in a series of time periods that are distinct from each other and have the same pattern of transfer to the customer. In each period, the Company's obligation is to make those services available to the customer. Throughout each period of services being provided, the customer simultaneously receives and consumes the benefits, resulting in revenue recognition over time. We have certain obligations, including providing spare or substitute capacity if available, in the event of satellite service failure under certain long-term agreements. We are generally not obligated to refund satellite utilization payments previously made.

*Satellite Related Consulting and Technical Services.* We recognize revenue from the provision of consulting services as those services are performed. We recognize revenue for consulting services with specific performance obligations, such as transfer orbit support services or training programs over the service period.

*Tracking, Telemetry and Commanding ("TT&C").* We earn TT&C services revenue from providing operational services to other satellite owners and from certain customers on our satellites. TT&C agreements entered into in connection with our satellite utilization contracts are typically for the period of the related service agreement. We recognize this revenue over the term of the service agreement.

*In-Orbit Backup Services.* We provide back-up transponder capacity that is held on reserve for certain customers on agreed-upon terms. We recognize revenues for in-orbit protection services over the term of the related agreement.

*Revenue Share Arrangements.* We recognize revenues under revenue share agreements for satellite-related services either on a gross or net basis in accordance with principal versus agent considerations.

We occasionally sell products or services individually or in some combination to our customers. When products or services are sold together, we allocate revenue for each performance obligation based on each obligation's relative selling price. In these arrangements, revenue for products is recognized when the transfer of control passes to the customer, while service revenue is recognized over the service term.

#### *Contract Assets*

Contract assets include unbilled amounts typically resulting from sales under our long-term contracts when the total contract value is recognized on a straight-line basis and the revenue recognized exceeds the amount billed to the customer.

#### *Contract Liabilities*

Contract liabilities consist of advance payments and collections in excess of revenue recognized and deferred revenue. Our contracts at times contain prepayment terms that range from one month to one year in advance of providing the service. As a practical expedient, we do not need to adjust the promised amount of consideration for the effects of a significant financing component if we expect, at contract inception, that the period between when the Company transfers a promised good or service to a customer and when the customer pays for that good or service will be one year or less. For a small subset of contracts with advance payments that contain prepayment terms greater than one year and up to 15 years, we assess whether a significant financing component exists by considering the difference between the amount of promised consideration and the cash selling price of the promised services. The prepayment amount is generally based on a standard methodology that discounts the total of the standard monthly charges over the service term to determine the prepayment amount, resulting in a difference between the amount of promised consideration and the cash selling price of the promised services. The Company considers the timing difference between payment and the promised transfer of services, combined with the Company's incremental borrowing rates, to determine whether a significant financing component exists. When a significant financing component exists, the amount of revenue recognized exceeds the amount of cash received from the customer. After receiving cash from the customer but prior to the Company providing services, the Company records additional contract liabilities as well as offsetting interest expense to reflect the upfront financing the Company is effectively receiving from the customer.

Once the Company begins providing services, additional interest expense is recorded each period, using the effective interest method, as well as corresponding additional revenue which is recognized ratably over the service period.

For the year ended December 31, 2018, we recognized revenue of \$247.0 million that was included in the contract liability balance as of January 1, 2018. In addition, the total amount of consideration included in contract assets as of January 1, 2018 that became unconditional for the year ended December 31, 2018 was \$11.0 million.

Our remaining performance obligation, which we refer to as contracted backlog, is our expected future revenue under existing customer contracts, and includes both cancelable and non-cancelable contracts. Our remaining performance obligation was approximately \$8.1 billion as of December 31, 2018, approximately 88% of which related to contracts that were non-cancelable and approximately 11% related to contracts that were cancelable subject to substantial termination fees. We assess the contract term of our cancelable contracts as the full stated term of the contract assuming each contract is not canceled since the termination penalty upon cancellation is substantive. As of December 31, 2018, the weighted average remaining customer contract life was approximately 4.5 years. Approximately 38%, 21%, and 41% of our total remaining performance obligation as of December 31, 2018 is expected to be recognized as revenue during 2019 and 2020, 2021 and 2022, and 2023 and thereafter, respectively. The amount included in the remaining performance obligation represents the full service charge for the duration of the contract and does not include termination fees. The amount of the termination fees, which is not included in the remaining performance obligation amount, is generally calculated as a percentage of the remaining performance obligation associated with the contract. In certain cases of breach for non-payment or customer financial distress or bankruptcy, we may not be able to recover the full value of certain contracts or termination fees. Our remaining performance obligation includes 100% of the remaining performance obligation of our consolidated ownership interests, which is consistent with the accounting for our ownership interest in these entities.

#### *Assets Recognized from the Costs to Obtain a Customer Contract*

We recognize an asset for the incremental costs of obtaining a contract with a customer if we expect the benefit of those costs to be longer than one year. We have determined that our sales incentive program meets the requirements to be capitalized due to the incremental nature of the costs and the expectation that the Company will recover such costs. The assets recognized from the costs to obtain a customer contract are amortized over a period that is consistent with the transfer to the customer of the services to which the asset relates. We capitalized \$6.6 million for our sales incentive program and amortized \$6.5 million for the year ended December 31, 2018.

#### *Contract Modifications*

Contracts are often modified to account for changes in contract specifications or requirements. We consider contract modifications to exist when the modification either creates new rights or obligations or changes the existing enforceable rights and obligations of either party. Most of our contract modifications are for goods and services that are distinct from the existing contract, as they consist of additional months of service priced at the Company's standalone selling prices of the additional services and are therefore treated as separate contracts. For contract modifications that do not result in additional distinct goods or services, the effect of a contract modification on the transaction price and our measure of progress for the performance obligation to which it relates is recognized as an adjustment to revenue.

#### *Significant Judgments*

We occasionally enter into certain contracts in which the customer makes payments in advance of services to be delivered, which may be years in the future. The reasons for the prepayments in these contracts vary, but generally can be either for the customer's benefit or for the Company's benefit (ability to use the cash received from the customer to pay for the construction of a satellite asset). The determination of whether contracts with a prepayment provision contain a significant financing component requires judgment. The Company makes this determination based on various factors, including the differences between the amount of promised consideration and cash selling prices, the length of time between payment and the transfer of services and prevailing interest rates in the market.

Our contracts generally contain multiple performance obligations. When a contract is separated into multiple performance obligations, we allocate the total transaction price to each performance obligation in an amount based on the estimated relative standalone selling price of the promised good or service underlying such performance obligation. Judgment

is required to determine the standalone selling price for each distinct performance obligation. In order to estimate standalone selling prices, we use an adjusted market assessment approach which involves an evaluation of the market and an estimate of the price that our customers are willing to pay, or an expected cost plus a margin approach.

When more than one party is involved in providing goods or services to a customer, we generally recognize the transaction on a gross basis due to the level of control that we have prior to the transfer of the good or service. Judgment is required in determining whether we are the principal or the agent in transactions involving third parties.

***(d) Fair Value Measurements***

We estimate the fair value of our financial instruments using available market information and valuation methodologies. The carrying amounts of cash and cash equivalents, receivables, accounts payable and accrued liabilities approximate their fair values because of the short maturity of these financial instruments.

FASB ASC Topic 820, *Fair Value Measurements and Disclosure* (“FASB ASC 820”) defines fair value as the price that would be received in the sale of an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. FASB ASC 820 requires disclosure of the extent to which fair value is used to measure financial assets and liabilities, the inputs utilized in calculating valuation measurements, and the effect of the measurement of significant unobservable inputs on earnings, or changes in net assets, as of the measurement date. FASB ASC 820 establishes a three-level valuation hierarchy based upon the transparency of inputs utilized in the measurement and valuation of financial assets or liabilities as of the measurement date. We apply fair value accounting for all financial assets and liabilities and non-financial assets and liabilities that are recognized or disclosed at fair value in the financial statements on a recurring basis.

The fair value hierarchy prioritizes the inputs used in valuation techniques into three levels as follows:

- Level 1—unadjusted quoted prices for identical assets or liabilities in active markets;
- Level 2—quoted prices for similar assets and liabilities in active markets, quoted prices for identical or similar assets or liabilities in markets that are not active, and inputs other than quoted market prices that are observable or that can be corroborated by observable market data by correlation; and
- Level 3—unobservable inputs based upon the reporting entity’s internally developed assumptions which market participants would use in pricing the asset or liability.

***(e) Cash and Cash Equivalents***

Cash and cash equivalents consist of cash on hand and highly liquid investments with original maturities of three months or less, which are generally time deposits with banks and money market funds. The carrying amount of these investments approximates fair value.

***(f) Receivables and Allowances for Doubtful Accounts***

We provide satellite services and extend credit to numerous customers in the satellite communication, telecommunications and video markets. We monitor our exposure to credit losses and maintain allowances for doubtful accounts and anticipated losses. We believe we have adequate customer collateral and reserves to cover our exposure.

***(g) Satellites and Other Property and Equipment***

Satellites and other property and equipment are stated at historical cost, or in the case of certain satellites acquired, the fair value at the date of acquisition. Capitalized costs consist primarily of the costs of satellite construction and launch, including launch insurance and insurance during the period of in-orbit testing, the net present value of performance incentives expected to be payable to the satellite manufacturers (dependent on the continued satisfactory performance of the satellites), costs directly associated with the monitoring and support of satellite construction, and interest costs incurred during the period of satellite construction.

We depreciate satellites and other property and equipment on a straight-line basis over the following estimated useful lives:

	<u>Years</u>
Buildings and improvements	10 - 40
Satellites and related costs	10 - 17
Ground segment equipment and software	4 - 15
Furniture and fixtures and computer hardware	4 - 12
Leasehold improvements(1)	2 - 12

(1) Leasehold improvements are depreciated over the shorter of the useful life of the improvement or the remaining lease term.

**(h) Other Assets**

Other assets consist of investments in certain equity securities, long-term deposits, long-term receivables and other miscellaneous deferred charges and long-term assets.

**(i) Goodwill and Other Intangible Assets**

We account for goodwill and other intangible assets in accordance with FASB ASC Topic 350, *Intangibles—Goodwill and Other* (“FASB ASC 350”). Goodwill represents the excess of the consideration transferred plus the fair value of any noncontrolling interest in the acquiree at the acquisition date over the fair values of identifiable net assets of businesses acquired. Goodwill and certain other intangible assets deemed to have indefinite lives are not amortized but are tested on an annual basis for impairment during the fourth quarter, or whenever events or changes in circumstances indicate that the carrying amount may not be fully recoverable. See Note 11—Goodwill and Other Intangible Assets.

Intangible assets arising from business combinations are initially recorded at fair value. We record other intangible assets at cost. We amortize intangible assets with determinable lives (consisting of backlog and customer relationships) based on the expected pattern of consumption. We review these intangible assets for impairment whenever facts and circumstances indicate that the carrying amounts may not be recoverable. See Note 11—Goodwill and Other Intangible Assets.

**(j) Impairment of Long-Lived Assets**

We review long-lived assets, including property and equipment and acquired intangible assets with estimable useful lives, for impairment whenever events or changes in circumstances indicate that the carrying amount of such an asset may not be recoverable. These indicators of impairment can include, but are not limited to, the following:

- satellite anomalies, such as a partial or full loss of power;
- under-performance of an asset compared to expectations; and
- shortened useful lives due to changes in the way an asset is used or expected to be used.

The recoverability of an asset to be held and used is determined by comparing the carrying amount to the estimated undiscounted future cash flows expected to be generated by the asset. If the carrying amount of the asset exceeds its estimated undiscounted future cash flows, we record an impairment charge in the amount by which the carrying amount of the asset exceeds its fair value, which we determine by either a quoted market price, if any, or a value determined by utilizing discounted cash flow techniques.

**(k) Income Taxes**

We account for income taxes in accordance with FASB ASC Topic 740—*Income Taxes*. We are subject to income taxes in the United States as well as a number of other foreign jurisdictions. Significant judgment is required in the calculation of our

tax provision and the resulting tax liabilities and in the recoverability of our deferred tax assets that arise from temporary differences between the tax and financial statement recognition of revenue and expense and net operating loss and credit carryforwards.

We regularly assess the likelihood that our deferred tax assets can be recovered. A valuation allowance is required when it is more likely than not that all or a portion of the deferred tax asset will not be realized. We evaluate the recoverability of our deferred tax assets based in part on the existence of deferred tax liabilities that can be used to realize the deferred tax assets.

During the ordinary course of business, there are transactions and calculations for which the ultimate tax determination is uncertain. We evaluate our tax positions to determine if it is more likely than not that a tax position is sustainable, based solely on its technical merits and presuming the taxing authorities have full knowledge of the position and access to all relevant facts and information. When a tax position does not meet the more likely than not standard, we record a liability or contra asset for the entire amount of the unrecognized tax impact. Additionally, for those tax positions that are determined more likely than not to be sustainable, we measure the tax position at the largest amount of benefit more likely than not (determined by cumulative probability) to be realized upon settlement with the taxing authority.

#### ***(l) Foreign Currency Translation***

Our functional currency is the U.S. dollar, since substantially all customer contracts, capital expenditure contracts and operating expense obligations are denominated in U.S. dollars. Transactions not denominated in U.S. dollars have been translated using the spot rates of exchange at the dates of the transactions. We recognize differences on exchange arising on the settlement of the transactions denominated in currencies other than the U.S. dollar in the consolidated statement of operations.

#### ***(m) Comprehensive Income***

Comprehensive income consists of net income or loss and other gains and losses affecting shareholders' equity that, under U.S. GAAP, are excluded from net income or loss. Such items consist primarily of the change in the market value of pension liability adjustments.

#### ***(n) Share-Based Compensation***

Compensation cost is recognized based on the requirements of FASB ASC Topic 718, *Compensation—Stock Compensation* ("FASB ASC 718"), for all share-based awards granted.

Option awards are measured at the grant date based on the fair value as calculated using either the Black-Scholes option pricing model, a Monte Carlo simulation model, a binomial tree model or any other acceptable model. Awards of shares or restricted share units are valued based on the closing market price at the grant date. The expense is recognized over the requisite service period, based on attainment of certain vesting requirements.

The determination of the value of certain awards requires considerable judgment, including estimating expected volatility, expected term, correlation between share price and market conditions and risk-free rate. The Company's expected volatility is based on either implied volatility of traded options on the shares of the Company or the historical volatility. The expected term is based on the midpoint between the expected vesting time and the remaining contractual life. The risk-free rate is derived from the applicable Constant Maturity Treasury rate.

#### ***(o) Deferred Satellite Performance Incentives***

The cost of satellite construction may include an element of deferred consideration that we are obligated to pay to satellite manufacturers over the lives of the satellites, provided the satellites continue to operate in accordance with contractual specifications. Historically, the satellite manufacturers have earned substantially all of these payments. Therefore, we account for these payments as deferred financing. We capitalize the present value of these payments as part of the cost of the satellites and record a corresponding liability to the satellite manufacturers. Interest expense is recognized on the deferred financing and the liability is reduced as the payments are made.

**(p) Derivative Instruments**

We enter into derivative transactions primarily to manage our exposure to fluctuations in foreign exchange rates and interest rates. We employ risk management strategies, which may include the use of foreign currency swaps, interest rate swaps and interest rate caps. We measure all derivatives at fair value and recognize them as either assets or liabilities on our consolidated balance sheets. Changes in the fair value of derivative instruments not qualifying as hedges are recognized in earnings in the current period.

**(q) New Accounting Pronouncements**

In May 2014, the FASB issued Accounting Standard Update (“ASU”) 2014-09, *Revenue from Contracts with Customers (Topic 606)*, which supersedes the revenue recognition requirements in FASB ASC Topic 605 - Revenue Recognition. The guidance in ASU 2014-09 clarifies the principles for recognizing revenue by creating a common revenue standard for U.S. GAAP (“ASC 606”). The FASB issued several amendments to the standard, including clarification of accounting for licenses of intellectual property and identifying performance obligations.

We adopted the standard effective January 1, 2018 using the modified retrospective method. We recognized the cumulative effect of initially applying the new standard as an adjustment to the opening balance of accumulated deficit. The comparative information has not been restated and continues to be reported under the accounting standards in effect for those years. Based on our assessment, the adoption of the new standard impacts the total consideration for prepayment contracts, accounting of incremental costs for obtaining a contract, allocation of the transaction price to performance obligations and accounting for contract modifications, and requires additional disclosures.

The cumulative effects of the changes made to our consolidated January 1, 2018 balance sheet for the adoption of ASC 606 were as follows (in thousands):

	As of December 31, 2017	Adjustment	As of January 1, 2018
<b>Consolidated Balance Sheets</b>			
<b>Assets</b>			
Receivables	\$ 221,223	\$ (11,025)	\$ 210,198
Prepaid expenses and other current assets	56,862	(28,545)	28,317
Contract assets	—	40,618	40,618
Contract assets, net of current portion	—	97,148	97,148
Other assets	443,830	(74,643)	369,187
<b>Liabilities</b>			
Accounts payable and accrued liabilities	\$ 116,396	\$ (4,071)	\$ 112,325
Deferred revenue	149,749	(149,749)	—
Contract liabilities	—	143,705	143,705
Deferred revenue, net of current portion	794,707	(794,707)	—
Contract liabilities, net of current portion	—	1,164,138	1,164,138
Deferred income taxes	48,434	(43,846)	4,588
Other long-term liabilities	296,616	(10,176)	286,440
<b>Shareholders' deficit</b>			
Accumulated deficit	\$ (5,894,659)	\$ (281,741)	\$ (6,176,400)

The cumulative effect adjustment was comprised of \$347.0 million, (\$8.5) million, (\$7.0) million, and (\$49.7) million for the significant financing component, timing of revenue recognition on our multi-product contracts that include both the provision of services and the delivery of equipment that are distinct, cost to obtain a contract adjustment and the related cumulative tax impact, respectively.



In accordance with the new revenue standard requirements, the disclosure of the impact of adoption of ASC 606 on our consolidated statements of operations, balance sheets, and statements of cash flows was as set forth in the tables below (in thousands). The impact to our consolidated statement of other comprehensive income (loss) was an increase in net loss of \$56.1 million for the year ended December 31, 2018.

	For the Year Ended December 31, 2018		
	As Reported	Balances without the adoption of ASC 606	Effect of adoption increase (decrease)
<b>Consolidated Statements of Operations</b>			
Revenue	\$ 2,161,190	\$ 2,057,983	\$ 103,207
Direct costs of revenue (excluding depreciation and amortization)	330,874	331,786	(912)
Selling, general and administrative	200,857	200,973	(116)
Interest expense, net	1,212,374	1,096,184	116,190
Other income, net	4,541	5,329	(788)
Provision for income taxes <sup>(1)</sup>	130,069	86,720	43,349
Net loss	(595,690)	(539,598)	(56,092)
Net loss attributable to Intelsat S.A.	(599,605)	(543,513)	(56,092)
Net loss per common share attributable to Intelsat S.A.:			
Basic	\$ (4.63)	\$ (4.20)	\$ (0.43)
Diluted	\$ (4.63)	\$ (4.20)	\$ (0.43)

- (1) Provision for income taxes includes a deferred tax asset that was established upon adoption of ASC 606 that was eliminated as a result of the 2018 Internal Reorganization (see Note 14 - Income Taxes).

	As of December 31, 2018		
	As Reported	Balances without the adoption of ASC 606	Effect of adoption increase (decrease)
<b>Consolidated Balance Sheets</b>			
<b>Assets</b>			
Receivables	\$ 271,393	\$ 278,233	\$ (6,840)
Prepaid expenses and other current assets	24,075	61,237	(37,162)
Contract assets	45,034	—	45,034
Contract assets, net of current portion	96,108	—	96,108
Other assets	401,414	483,589	(82,175)
<b>Liabilities</b>			
Accounts payable and accrued liabilities	\$ 108,101	\$ 113,627	\$ (5,526)
Deferred revenue	—	134,799	(134,799)
Contract liabilities	137,746	—	137,746
Deferred revenue, net of current portion	—	763,478	(763,478)
Contract liabilities, net of current portion	1,131,319	—	1,131,319
Taxes payable	5,679	4,886	793
Other long-term liabilities	77,670	83,776	(6,106)
Deferred income taxes	82,488	89,639	(7,151)
<b>Shareholders' deficit</b>			
Accumulated deficit	\$ (6,606,426)	\$ (6,268,593)	\$ (337,833)

	For the Year Ended December 31, 2018		
	As Reported	Balances without the adoption of ASC 606	Effect of adoption increase (decrease)
<b>Consolidated Statement of Cash Flows</b>			
<b>Cash flows from operating activities</b>			
Net loss	\$ (595,690)	\$ (539,598)	\$ (56,092)
Adjustments to reconcile net loss to net cash provided by operating activities:			
Deferred income taxes	79,160	42,465	36,695
Other non-cash items	938,828	938,828	—
Changes in operating assets and liabilities:			
Receivables	(63,814)	(59,629)	(4,185)
Prepaid expenses, contract and other assets	3,708	(9,065)	12,773
Accounts payable and accrued liabilities	7,291	7,953	(662)
Accrued interest payable	21,442	21,442	—
Deferred revenue and contract liabilities	(39,763)	(47,164)	7,401
Accrued retirement benefits	(15,902)	(15,902)	—
Other long-term liabilities	8,913	4,843	4,070
Net cash provided by operating activities	\$ 344,173	\$ 344,173	\$ —

Refer to Note 17—Business and Geographic Segment Information for the required disclosures related to the disaggregation of revenue.

In August 2016, the FASB issued ASU 2016-15, *Statement of Cash Flows (Topic 230): Classification of Certain Cash Receipts and Cash Payments*, which addresses specific issues relating to diversity in practice in how certain cash receipts and cash payments are presented and classified in the statement of cash flows. Additionally, in November 2016, the FASB issued ASU 2016-18, *Statement of Cash Flows (Topic 230): Restricted Cash (a consensus of the FASB Emerging Issues Task Force)*, which requires that amounts described as restricted cash and restricted cash equivalents should be included with cash and cash equivalents when reconciling the beginning-of-period and end-of-period total amounts shown on the statement of cash flows. We adopted ASU 2016-15 and ASU 2016-18 in the first quarter of 2018 on a retrospective basis. The adoption of ASU 2016-15 has no impact on our consolidated statement of cash flows. The effect of the adoption of ASU 2016-18 on our consolidated statements of cash flows are as follows (in thousands):

	For the Year Ended December 31, 2016		
	As Reported	Balances without the adoption of ASU 2016-18	Effect of adoption increase
<b>Consolidated Statement of Cash Flows</b>			
Net cash provided by operating activities	\$ 678,755	\$ 683,506	\$ (4,751)
Net cash provided by investing activities	(730,589)	(730,589)	—
Net cash provided by financing activities	546,347	541,596	4,751
Net change in cash, cash equivalents and restricted cash	\$ 494,483	\$ 494,483	\$ —

	<b>For the Year Ended December 31, 2017</b>		
	<b>As Reported</b>	<b>Balances without the adoption of ASU 2016-18</b>	<b>Effect of adoption increase</b>
<b>Consolidated Statement of Cash Flows</b>			
Net cash provided by operating activities	\$ 464,246	\$ 464,230	\$ 16
Net cash provided by investing activities	(468,297)	(468,297)	—
Net cash used in financing activities	(121,698)	(137,858)	16,160
Net change in cash, cash equivalents and restricted cash	\$ (124,633)	\$ (140,809)	\$ 16,176

The following table provides a reconciliation of cash, cash equivalents and restricted cash reported within our consolidated balance sheets to the total sum of these same amounts reported in our consolidated statements of cash flows:

	<b>As of December 31, 2016</b>	<b>As of December 31, 2017</b>	<b>As of December 31, 2018</b>
Cash and cash equivalents	\$ 666,024	\$ 525,215	\$ 485,120
Restricted cash	—	16,176	22,037
Total cash, cash equivalents and restricted cash reported in the statements of cash flows	\$ 666,024	\$ 541,391	\$ 507,157

Restricted cash represents legally restricted amounts being held as a compensating balance for certain outstanding letters of credit.

We adopted ASU 2016-16 in the first quarter of 2018 and the adoption resulted in approximately a \$170 million benefit to accumulated deficit. See Note 14—Income Taxes. We also adopted ASU 2016-01, ASU 2017-07 and ASU 2017-09 in the first quarter of 2018. See Note 10—Investments, Note 7—Retirement Plans and Other Retiree Benefits, and Note 5—Share-Based and Other Compensation Plans, respectively.

#### **Recently Issued Accounting Pronouncements**

In February 2016, the FASB issued ASU 2016-02, *Leases (Topic 842)*, to increase transparency and comparability by recognizing substantially all leases on the balance sheet. Under the new standard, a lessee will recognize on its balance sheet a lease liability and a right-of-use (“ROU”) asset for most leases, with certain practical expedients available. ASU 2016-02 is effective for interim and annual periods beginning after December 15, 2018. Subsequent to ASU 2016-02, the FASB issued ASU 2018-10 *Codification Improvements to Topic 842, Leases*, ASU 2018-11 *Targeted Improvements*, and ASU 2018-20 *Narrow-Scope Improvements for Lessors*, which amend and clarify aspects of the guidance issued in ASU 2016-02. ASU 2018-11 provides an alternative transition method (the “effective date method”).

We intend to adopt ASU 2016-02 on January 1, 2019 and apply the package of practical expedients included therein, as well as utilize the effective date method included in ASU 2018-11. Under the package of practical expedients, we will not reassess (a) whether expired or existing contracts contain a lease under the new definition of a lease, (b) lease classification for expired or existing leases, and (c) whether previously capitalized initial direct costs would qualify for capitalization under Topic 842. We also intend to apply the practical expedients for lessees and lessors to exempt short term leases and to account for each non lease component associated with a lease component as a single component when the applicable criteria are met. By applying ASU 2016-02 at the adoption date, as opposed to at the beginning of the earliest period presented, our reporting for periods prior to January 1, 2019 will continue to be in accordance with Leases (Topic 840). In preparation for adoption of the standard, we have implemented internal controls and key system functionality to enable the preparation of the necessary financial information.

The new standard will have a material impact on our consolidated balance sheets, and we expect to recognize ROU assets and related lease liabilities for operating leases in the range of \$85 million to \$95 million, and \$110 million to \$120 million, respectively, with no material impact on our consolidated statement of operations and statement of cash flows. The new standard may have lessor accounting implications where certain future contracts that convey the right to control the use of a significant portion of the satellite may be accounted for using an approach that is substantially equivalent to existing guidance for sales-type leases, direct financing leases and operating leases, which could potentially result in more upfront revenue recognition.

In June 2016, the FASB issued ASU 2016-13, *Financial Instruments—Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments*, which changes how companies measure and recognize credit impairment for any financial assets. The standard requires companies to immediately recognize an estimate of credit losses expected to occur over the remaining life of the financial assets that are within the scope of the standard. The scope of Subtopic 326-20, *Financial Instruments - Credit Losses - Measured at Amortized Cost*, includes financial assets measured at amortized cost basis, including net investments in leases arising from sales-type and direct financing leases. The scope does not specifically address receivables arising from operating leases. In November 2018, the FASB issued 2018-19, *Codification Improvements to Topic 326, Financial Instruments—Credit Losses* to clarify that receivables arising from operating leases are not within the scope of Subtopic 326-20. Instead, impairment of receivables arising from operating leases should be accounted for in accordance with Topic 842, *Leases*. Both ASU 2016-13 and ASU 2018-19 are effective for interim and annual periods beginning after December 15, 2019 for public business entities that are SEC filers, on a modified retrospective basis. Early adoption is permitted for interim and annual periods beginning after December 15, 2018. We are in the process of evaluating the impact that ASU 2016-13 and ASU 2018-19 will have on our consolidated financial statements and associated disclosures.

In January 2017, the FASB issued ASU 2017-04, *Intangibles—Goodwill and Other (Topic 350): Simplifying the Test for Goodwill Impairment*, which is intended to simplify the subsequent measurement of goodwill. The amendments in ASU 2017-04 modify the concept of impairment from the condition that exists when the carrying amount of goodwill exceeds its fair value to the condition that exists when the carrying amount of a reporting unit exceeds its fair value. An entity will no longer determine goodwill impairment by calculating the implied fair value of goodwill by assigning the fair value of a reporting unit to all of its assets and liabilities, as if that reporting unit had been acquired in a business combination. ASU 2017-04 will be effective for interim and annual goodwill impairment tests in fiscal years beginning after December 15, 2019 for public business entities, on a prospective basis. Early adoption is permitted for interim or annual goodwill impairment tests performed on testing dates after January 1, 2017. When adopted, we will measure impairment using the difference between the carrying amount and the fair value of the reporting unit, if required.

In February 2018, the FASB issued ASU 2018-02, *Income Statement - Reporting Comprehensive Income (Topic 220)*, which allows for an optional reclassification from accumulated other comprehensive income to retained earnings for stranded tax effects resulting from the Tax Cuts and Jobs Act. Consequently, the amendments eliminate the stranded tax effects resulting from the Tax Cuts and Jobs Act for those entities that elect the optional reclassification. The amendments in this update will also require certain disclosures about stranded tax effects. ASU 2018-02 is effective for all entities for interim and annual periods beginning after December 15, 2018. The adoption of ASU 2018-02 is not expected to have a significant impact on our consolidated financial statements and associated disclosures.

In August 2018, the FASB issued ASU 2018-13, *Fair Value Measurement (Topic 820)*, as part of its disclosure framework project to improve the effectiveness of disclosures in the notes to financial statements. ASU 2018-13 modifies disclosure requirements on fair value measurements in Topic 820, and is effective for all entities for interim and annual periods beginning after December 15, 2019. The amendments on changes in unrealized gains and losses, the range and weighted average of significant unobservable inputs used to develop Level 3 fair value measurements, and the narrative description of measurement uncertainty should be applied prospectively for only the most recent interim or annual period presented in the initial fiscal year of adoption. All other amendments should be applied retrospectively to all periods presented upon their effective date. Early adoption is allowed for any removed or modified disclosures upon issuance of ASU 2018-13 and delay adoption for the additional disclosures until their effective date. We are in the process of evaluating the impact that ASU 2018-13 will have on our consolidated financial statements and associated disclosures.

In August 2018, the FASB issued ASU 2018-14, *Compensation - Retirement Benefits - Defined Benefit Plans - General (Subtopic 715-20)*, as part of its disclosure framework project to improve the effectiveness of disclosures in the notes to financial statements. ASU 2018-14 modifies and clarifies disclosure requirements for employers that sponsor defined benefit pension or other postretirement plans. The amendments remove certain disclosure requirements and require additional disclosures including the weighted-average interest crediting rates for cash balance plans and other plans with promised interest crediting rates, an explanation of the reasons for significant gains and losses related to changes in the benefit obligation for the period, the projected benefit obligation "PBO" and fair value of plan assets for plans with PBOs in excess of plan assets, and the accumulated benefit obligation "ABO" and fair value of plan assets for plans with ABOs in excess of plan assets. ASU 2018-14 is effective for public business entities for fiscal years ending after December 15, 2020, on a retrospective basis to all periods presented with early adoption allowed. We are in the process of evaluating the impact that ASU 2018-14 will have on our consolidated financial statements and associated disclosures.

In August 2018, the FASB issued ASU 2018-15, *Intangibles - Goodwill and Other Internal-Use Software (Subtopic 350-40)*, to improve current U.S. GAAP by clarifying the accounting for implementation costs of a hosting arrangement that is a service contract. The amendments align the requirements for capitalizing implementation costs incurred in a cloud computing arrangement (hosting arrangement) that is a service contract with the requirements for capitalizing implementation costs incurred to develop or obtain internal-use software (and hosting arrangements that include an internal-use software license). The amendments require costs for implementation activities in the application development stage to be capitalized depending on the nature of the costs, and costs incurred during the preliminary project and post-implementation stages to be expensed as the activities are performed. ASU 2018-15 also requires the entity (customer) to expense capitalized implementation costs of a hosting arrangement that is a service contract over the term of the hosting arrangement, and the entity (customer) to present the expense related to the capitalized implementation costs in the same line item in the statement of income as the fees associated with the hosting element (service) of the arrangement, as well as to classify payments for capitalized implementation costs in the statement of cash flows in the same manner as payments made for fees associated with the hosting element. ASU 2018-15 is effective for public business entities for fiscal years beginning after December 15, 2019, and interim periods within those fiscal years. ASU 2018-15 can be applied either retrospectively or prospectively to all implementation costs incurred after the date of adoption, with early adoption allowed. We are in the process of evaluating the impact that ASU 2018-15 will have on our consolidated financial statements and associated disclosures.

In November 2018, the FASB issued ASU 2018-18, *Collaborative Arrangements (Topic 808) - Clarifying the Interaction between Topic 808 and Topic 606*, to clarify the interaction between Topic 808, *Collaborative Arrangements* and Topic 606, *Revenue from Contracts with Customers*. ASU 2018-18 is effective for public business entities for fiscal years beginning after December 15, 2019, and interim periods within those fiscal years, with early adoption allowed. ASU 2018-18 can be applied retrospectively to the date of initial application of Topic 606, with cumulative effect of initially applying the amendments in this update adjusted to the opening balance of retained earnings of the later of the earliest annual period presented and the annual period that includes the date of the entity's initial application of Topic 606. The amendments in ASU 2018-18 can be applied to all contracts or only to contracts that are not completed at the date of initial application of Topic 606. We are in the process of evaluating the impact that ASU 2018-18 will have on our consolidated financial statements and associated disclosures.

### **Note 3 Share Capital**

Under our Articles of Incorporation, we have an authorized share capital of \$10 million, represented by 1.0 billion shares of any class with a nominal value of \$0.01 per share. At December 31, 2018, there were 138.0 million common shares issued and outstanding.

In June 2018, Intelsat S.A. completed an offering of 15,498,652 common shares, nominal value 0.01 per share, at a public offering price of 14.84 per common share.

#### Note 4 Net Income (Loss) per Share

Basic earnings per share (“EPS”) is computed by dividing net income (loss) attributable to Intelsat S.A.’s common shareholders by the weighted average number of common shares outstanding during the periods.

The following table sets forth the computation of basic and diluted net income (loss) per share attributable to Intelsat S.A.:

	(in thousands, except per share data or where otherwise noted)		
	Year Ended December 31, 2016	Year Ended December 31, 2017	Year Ended December 31, 2018
Numerator:			
Net income (loss)	\$ 994,112	\$ (174,814)	\$ (595,690)
Net income attributable to noncontrolling interest	(3,915)	(3,914)	(3,915)
Net income (loss) attributable to Intelsat S.A.	990,197	(178,728)	(599,605)
Net income (loss) attributable to common shareholders	\$ 990,197	\$ (178,728)	\$ (599,605)
Numerator for Basic EPS—income/ (loss) available to common shareholders	\$ 990,197	\$ (178,728)	\$ (599,605)
Numerator for Diluted EPS	\$ 990,197	\$ (178,728)	\$ (599,605)
Denominator:			
Basic weighted average shares outstanding (in millions)	114.5	118.9	129.6
Weighted average dilutive shares outstanding (in millions):			
Preferred shares (in millions)	3.2	—	—
Employee compensation related shares including options and restricted stock units (in millions)	0.8	—	—
Diluted weighted average shares outstanding (in millions)	118.5	118.9	129.6
Basic net income (loss) per common share attributable to Intelsat S.A.	\$ 8.65	\$ (1.50)	\$ (4.63)
Diluted net income (loss) per common share attributable to Intelsat S.A.	\$ 8.36	\$ (1.50)	\$ (4.63)

In June 2018, Intelsat S.A. completed an offering of \$402.5 million aggregate principal amount of its 4.5% Convertible Senior Notes due 2025 (the “2025 Convertible Notes”). We do not expect to settle the principal amount of the 2025 Convertible Notes in cash, and therefore use the if-converted method for calculating any potential dilutive effect of the conversion on diluted net income per share, if applicable. The 2025 Convertible Notes are eligible for conversion depending upon the trading price of our common shares and under other conditions set forth in the 2025 Indenture (as defined below in Note 12—Long Term Debt) until December 15, 2024, and thereafter without regard to any conditions. See Note 12—Long Term Debt for additional information on the conversion conditions.

Due to a net loss in the years ended December 31, 2017 and 2018, there were no dilutive securities, and therefore, basic and diluted EPS were the same. The weighted average number of shares that could potentially dilute basic EPS in the future was 6.2 million, 3.5 million and 12.5 million (consisting of restricted share units, performance units, options to purchase common shares, and potentially issuable shares from the conversion of the 2025 Convertible Notes) for the years ended December 31, 2016, 2017 and 2018, respectively.

#### Note 5 Share-Based and Other Compensation Plans

In May 2017, the FASB issued ASU 2017-09, *Compensation-Stock Compensation (Topic 718): Scope of Modification Accounting*, which is intended to clarify when to account for a change to the terms or conditions of a share-based payment award as a modification. Under ASU 2017-09 modification accounting is required only if the fair value (or calculated intrinsic value, if those amounts are being used to measure the award under ASC 718), the vesting conditions, or the classification of the award changes as a result of the change in terms or conditions. ASU 2017-09 is effective for all entities for annual periods, and interim periods within those annual periods, beginning after December 15, 2017. We adopted ASU 2017-09 on January 1, 2018. The adoption of this standard did not have an impact on our consolidated financial statements and associated disclosures. We will continue to evaluate the impact of ASU 2017-09 as any modifications occur.

In April 2013, our board of directors adopted the amended and restated Intelsat Global, Ltd. 2008 Share Incentive Plan (as amended, the “2008 Equity Plan”). Also in April 2013, our board of directors adopted the Intelsat S.A. 2013 Equity Incentive Plan (the “2013 Equity Plan”). No new awards may be granted under the 2008 Equity Plan.

The 2013 Equity Plan provides for a variety of equity based awards, including incentive stock options (within the meaning of Section 422 of the United States Internal Revenue Service Tax Code), restricted shares, restricted share units (“RSUs”), other share-based awards and performance compensation awards. Effective June 16, 2016, we increased the aggregate number of common shares authorized for issuance under the 2013 Equity Plan to 20.0 million common shares. The total aggregate number of shares available for future issuance under the 2013 Equity Plan was 7.3 million as of December 31, 2018.

For all share-based awards, we recognize the compensation costs over the vesting period during which the employee provides service in exchange for the award. During the years ended December 31, 2016, 2017 and 2018, we recorded compensation expense of \$23.2 million, \$16.0 million, and \$6.8 million, respectively. The income tax benefit related to share-based compensation expense was \$0.4 million for the year ended December 31, 2018. We did not recognize any income tax benefit related to share-based compensation expense for the years ended December 31, 2017 and December 31, 2016.

#### *Stock Options*

Stock options generally expire 10 years from the date of grant. In some cases, options have been granted which expire 15 years from the date of grant. The options vest monthly over service periods ranging from six months to five years.

#### **Stock Option activity during 2018 was as follows:**

	Number of Stock Options (in thousands)	Weighted Average Exercise price	Weighted Average remaining contractual term (in years)	Aggregate intrinsic value (in millions)
Outstanding at January 1, 2018	2,084	\$ 3.84		
Granted	3	19.5		
Exercised	(852)	3.77		
Expired	(126)	5.67		
Outstanding at December 31, 2018	1,109	\$ 3.71	5.7	\$ 19.6
Exercisable at December 31, 2018	1,037	\$ 3.71	5.6	\$ 18.3

The total intrinsic value of stock options exercised during the years ended December 31, 2017 and 2018 was \$0.2 million and \$7.9 million, respectively. No stock options were exercised during the year ended December 31, 2016. As of December 31, 2018, there was a minimal amount of total unrecognized compensation cost related to unvested options, which is expected to be recognized over a weighted average period of 0.1 years.

During the years ended December 31, 2016, 2017 and 2018, we recorded compensation expense of \$2.6 million, \$1.4 million and \$0.2 million, respectively, including compensation expense from option modifications in 2014 and 2016, further described below. During years ended 2017 and 2018, we received cash of \$0.5 million and \$3.2 million, respectively, from the exercise of stock options. No stock options were exercised during the year ended December 31, 2016.

#### *Anti-Dilution Options*

In connection with our initial public offering of common shares in April 2013 (the “IPO”) and upon consummation of the IPO, options were granted to certain individuals in accordance with the existing terms of their side letters to a management shareholders agreement to which we are a party, which, when taken together with the common shares received in connection with the reclassification of our outstanding former Class B Shares at the time of our IPO, preserved their ownership interests represented by their outstanding former Class B Shares immediately prior to the reclassification.

These options generally expire 10 years from the date of the grant.

	Number of Stock Options (in thousands)	Weighted Average Exercise price	Weighted Average remaining contractual term (in years)	Aggregate intrinsic value (in millions)
Outstanding at January 1, 2018	1,610	\$ 11.98		
Outstanding at December 31, 2018	1,610	\$ 11.98	4.1	\$ 15.1
Exercisable at December 31, 2018	1,610	\$ 11.98	4.1	\$ 15.1

We measure the fair value of anti-dilution option grants at the date of grant using a Black-Scholes option pricing model. There were no anti-dilution options granted during the years ended December 31, 2016, 2017 and 2018.

During the year ended December 31, 2016, we recorded compensation expense associated with anti-dilution option awards of \$1.0 million related to 2016 option modifications further described below. No compensation expense was recorded for these awards during the years ended December 31, 2017 and 2018.

There were no anti-dilution options exercised during the years ended 2016, 2017 or 2018.

#### *2016 Option modifications*

During the year ended December 31, 2016, we amended 1.2 million stock options under the 2008 Equity Plan (including 0.7 million of anti-dilution options), and 0.4 million stock options under the 2013 Equity Plan in order to modify the exercise prices to \$4.16 for the anti-dilution options and to \$3.77 for the remainder. As a result of the change, we estimated the difference between fair value of the amended options and the fair value of the original awards before settlement. The fair value was measured using the Black-Scholes option pricing model and the following assumptions were used for the amended options and the original awards before amendment: risk-free interest rates of 0.8% to 1.5%; dividend yields of 0.0%; expected volatility of 50-60%; and expected life of one to four years.

All such options were fully vested and we recognized additional compensation expense associated with the modifications of \$2.0 million for the year ended December 31, 2016, which has been included in the respective sections above.

#### *Time-based RSUs*

Time-based RSUs vest over periods ranging from one to three years from the date of grant.

#### **Time-based RSUs activity during 2018 was as follows:**

	Number of RSUs (in thousands)	Weighted Average grant date fair value	Weighted Average remaining contractual term (in years)	Aggregate intrinsic value (in millions)
Outstanding at January 1, 2018	3,417	\$ 7.56		
Granted	1,490	7.99		
Vested (1)	(2,113)	10.07		
Forfeited	(192)	5.42		
Outstanding at December 31, 2018	2,602	\$ 5.93	1.6	\$ 40.2

(1) The total vested RSUs includes 1,025 RSUs that were vested in prior years but settled in 2018.

The fair value of time-based RSUs is deemed to be the market price of common shares on the date of grant. The weighted average grant date fair value of time-based RSUs granted during the years ended December 31, 2016, 2017, and 2018 was \$1.67, \$4.36, and \$7.99, respectively. The total intrinsic value of time-based RSUs vested during the years ended December 31, 2016, 2017 and 2018 was \$1.7 million, \$6.0 million, and \$9.2 million, respectively. As of December 31, 2018, there was \$10.7



million of total unrecognized compensation cost related to unvested time-based RSUs, which is expected to be recognized over a weighted average period of 1.6 years.

During the years ended December 31, 2016, 2017, and 2018, we recorded compensation expense associated with these time-based RSUs of \$17.9 million, \$13.7 million, and \$5.7 million, respectively.

#### *Performance-based RSUs*

Performance-based RSUs vest after three years from the date of grant upon achievement of certain performance conditions. These grants are subject to vesting upon achievement of an adjusted EBITDA target or achievement of a relative shareholder return (“RSR”), which is based on the Company’s relative shareholder return percentile ranking versus the S&P 900 Index target as defined in the grant agreement.

#### **Performance-based RSUs activity during 2018 was as follows:**

	Number of RSUs (in thousands)	Weighted Average grant date fair value	Weighted Average remaining contractual term (in years)	Aggregate intrinsic value (in millions)
Outstanding at January 1, 2018	2,156	\$ 2.89		
Granted	930	4.53		
Cancelled	(348)	8.97		
Forfeited	(114)	2.28		
Outstanding at December 31, 2018	<u>2,624</u>	<u>\$ 2.69</u>	<u>1.1</u>	<u>\$ 49.1</u>

We measure the fair value of performance-based RSUs at the date of grant using the market price of our common shares.

The weighted average grant date fair value of performance-based RSUs granted during the years ended December 31, 2016, 2017, and 2018 was \$0.94, \$2.79, and \$4.53, respectively. As of December 31, 2018, there was \$2.3 million of total unrecognized compensation cost related to unvested performance-based RSUs, which is expected to be recognized over a weighted average period of 1.1 years.

Achievement of the adjusted EBITDA target for awards granted in 2016, 2017, and 2018 is not currently considered probable. No compensation cost associated with these awards (based on the adjusted EBITDA condition) was recognized during the years ended December 31, 2017, and 2018. We recorded compensation expense associated with the awards granted in 2016 (based on the adjusted EBITDA condition) of \$0.1 million during the year ended December 31, 2016, which was reversed during the year ended December 31, 2017. We recorded compensation expense associated with the RSR portion of performance-based RSUs of \$1.6 million, \$1.0 million, and \$0.9 million during the years ended December 31, 2016, 2017 and 2018, respectively.

#### **Note 6 Fair Value Measurements**

We have identified investments in marketable securities, interest rate financial derivative instruments, warrant instruments as those items that meet the criteria of the disclosure requirements and fair value framework of FASB ASC 820.

The following tables present assets measured and recorded at fair value in our consolidated balance sheets on a recurring basis and their corresponding level within the fair value hierarchy (in thousands), excluding long-term debt (see Note 12—Long-Term Debt) and pension plan assets (see Note 7—Retirement Plans and Other Retiree Benefits). No transfers between Level 1 and Level 2 fair value measurements occurred during the year ended December 31, 2018.

Description	As of	Fair Value Measurements at December 31, 2017		
		Quoted Prices in Active Markets for Identical Assets	Significant Other Observable Inputs	Significant Unobservable Inputs
		(Level 1)	(Level 2)	(Level 3)
Assets	December 31, 2017			
Marketable securities <sup>(1)</sup>	\$ 5,776	\$ 5,776	\$ —	\$ —
Undesignated interest rate cap <sup>(2)</sup>	22,336	—	22,336	—
Warrant <sup>(3)</sup>	4,100	—	—	4,100
Total assets	\$ 32,212	\$ 5,776	\$ 22,336	\$ 4,100

Description	As of	Fair Value Measurements at December 31, 2018		
		Quoted Prices in Active Markets for Identical Assets	Significant Other Observable Inputs	Significant Unobservable Inputs
		(Level 1)	(Level 2)	(Level 3)
Assets	December 31, 2018			
Marketable securities <sup>(1)</sup>	\$ 4,700	\$ 4,700	\$ —	\$ —
Undesignated interest rate cap <sup>(2)</sup>	33,086	—	33,086	—
Warrant <sup>(3)</sup>	4,100	—	—	4,100
Total assets	\$ 41,886	\$ 4,700	\$ 33,086	\$ 4,100

- (1) The valuation measurement inputs of these marketable securities represent unadjusted quoted prices in active markets and, accordingly, we have classified such investments within Level 1 of the fair value hierarchy. The cost basis of our marketable securities was \$4.7 million at December 31, 2017 and \$4.6 million at December 31, 2018. We sold marketable securities with a cost basis of \$0.7 million during the year ended December 31, 2018 and recorded a nominal gain on the sale within other income, net in our consolidated statement of operations.
- (2) The valuation of our interest rate derivative instruments reflects the fair value of premiums paid, taking into account observable inputs including current interest rates, the market expectation for future interest rates volatility and current creditworthiness of the counterparties. As a result, we have determined that our derivative valuations in their entirety are classified within Level 2 of the fair value hierarchy.
- (3) We valued the warrant using a valuation technique which reflects the risk free rate, time to maturity and volatility of comparable companies. We identified the inputs used to calculate the fair value as Level 3 inputs and concluded that the valuation in its entirety was classified as Level 3 within the fair value hierarchy.

#### Note 7 Retirement Plans and Other Retiree Benefits

In March 2017, the FASB issued ASU 2017-07, *Compensation-Retirement Benefits (Topic 715): Improving the Presentation of Net Periodic Pension Cost and Net Periodic Postretirement Benefit Cost*, to require that an employer report the service cost component in the same line item or items as other compensation costs arising from services rendered by the pertinent employees during the period in the operating income section of the income statement, if one is presented. The other components of net benefit cost, as defined, are required to be presented in the income statement separately from the service cost component and outside a subtotal of income from operations. If a separate line item or items are used to present the other components of net benefit cost, that line item or items must be appropriately described. If a separate line item or items are not used, the line item or items used in the income statement to present the other components of net benefit cost must be disclosed. The amendments in this ASU also allow only the service cost component to be eligible for capitalization when applicable. ASU 2017-07 is effective for interim and annual periods beginning after December 15, 2017 for public business entities. As discussed in Note 2, we adopted ASU 2017-07 on January 1, 2018 using the retrospective method, which changed the financial statement presentation of service costs and the other components of net periodic benefit cost. The service cost component, which does not apply to our plans since they are frozen, continues to be included in operating income; however, the other components are now presented in other income (expense), net in the consolidated statements of operations. As a result, the company reclassified a net credit for pension and postretirement benefits from operating expenses to other income for the years ended December 31, 2016 and 2017, to conform to the current year presentation.

The reclassifications to conform to the current year presentation are as follows (in thousands):

	<u>Year Ended December 31, 2016</u>	<u>Year Ended December 31, 2017</u>
Operating Expenses:		
Direct costs of revenue (excluding depreciation and amortization)	\$ 1,487	\$ 2,016
Selling, general and administrative	1,140	1,460
Other income (expense), net	<u>\$ 2,627</u>	<u>\$ 3,476</u>

***(a) Pension and Other Postretirement Benefits***

We maintain a noncontributory defined benefit retirement plan covering substantially all of our employees hired prior to July 19, 2001. The cost of providing benefits to eligible participants under the defined benefit retirement plan is calculated using the plan's benefit formulas, which take into account the participants' remuneration, dates of hire, years of eligible service, and certain actuarial assumptions. In addition, as part of the overall medical plan, we provide postretirement medical benefits to certain current retirees who meet the criteria under the medical plan for postretirement benefit eligibility.

In September 2018, the Company communicated a plan to its retiree medical group Medicare eligible plan participants to transition to a private exchange, effective January 1, 2019, which was accounted for as a plan amendment. As a result of the plan amendment, we recognized a decrease of \$38.5 million (net of \$0.7 million in tax impact) in our other postretirement benefit obligation as of December 31, 2018, with a corresponding increase to other comprehensive income for the year ended December 31, 2018.

In the first quarter of 2015, we amended the defined benefit retirement plan to cease the accrual of additional benefits for the remaining active participants effective March 31, 2015. As a result of the curtailment, all of the plan's participants are now considered inactive. Accordingly, all amounts recorded in accumulated other comprehensive loss are being recognized as an increase to net periodic benefit cost over the average remaining life expectancy of plan participants, which is approximately 20 years.

The defined benefit retirement plan is subject to the provisions of the Employee Retirement Income Security Act of 1974, as amended. We expect that our future contributions to the defined benefit retirement plan will be based on the minimum funding requirements of the Internal Revenue Code and on the plan's funded status. Any significant decline in the fair value of our defined benefit retirement plan assets or other adverse changes to the significant assumptions used to determine the plan's funded status would negatively impact its funded status and could result in increased funding in future years. The impact on the funded status is determined based upon market conditions in effect when we completed our annual valuation. We anticipate that our contributions to the defined benefit retirement plan in 2019 will be approximately \$5.1 million. We fund the postretirement medical benefits throughout the year based on benefits paid. We anticipate that our contributions to fund postretirement medical benefits in 2019 will be approximately \$3.1 million.

Prior service credits and actuarial losses are reclassified from accumulated other comprehensive loss to net periodic pension benefit costs, which are included in other income (expense), net on our consolidated statements of operations for the year ended December 31, 2018. The following table presents these reclassifications, net of tax, as well as the reclassification of the realized gain on investments, and the statement of operations line items that are impacted (in thousands):

	<u>Year Ended December 31, 2016</u>	<u>Year Ended December 31, 2017</u>	<u>Year Ended December 31, 2018</u>
Amortization of prior service credits reclassified from other comprehensive loss to net periodic pension benefit costs included in:			
Other income (expense), net	(5)	21	(839)
Total	<u>\$ (5)</u>	<u>\$ 21</u>	<u>\$ (839)</u>
Amortization of actuarial loss reclassified from other comprehensive loss to net periodic pension benefit costs included in:			
Other income (expense), net	2,223	2,074	4,064
Total	<u>\$ 2,223</u>	<u>\$ 2,074</u>	<u>\$ 4,064</u>
Realized gain on investments included in:			
Other income (expense), net	\$ (192)	\$ (235)	\$ (351)
Total	<u>\$ (192)</u>	<u>\$ (235)</u>	<u>\$ (351)</u>

*Reconciliation of Funded Status and Accumulated Benefit Obligation.* Expenses for our defined benefit retirement plan and for postretirement medical benefits that are provided under our medical plan are developed from actuarial valuations. The following summarizes the projected benefit obligations, plan assets and funded status of the defined benefit retirement plan, as well as the projected benefit obligations of the postretirement medical benefits provided under our medical plan (in thousands, except percentages):

	Year Ended December 31, 2017		Year Ended December 31, 2018	
	Pension Benefits	Other Post- retirement Benefits	Pension Benefits	Other Post- retirement Benefits
<b>Change in benefit obligation</b>				
Benefit obligation at beginning of year	\$ 424,929	\$ 82,897	\$ 447,222	\$ 82,587
Service cost	—	—	—	—
Interest cost	14,778	2,869	14,428	2,314
Employee contributions	—	416	—	390
Plan amendments	—	—	—	(33,907)
Benefits paid	(24,380)	(4,125)	(30,741)	(3,600)
Actuarial (gain) loss	31,895	530	(36,827)	(7,258)
Benefit obligation at end of year	<u>\$ 447,222</u>	<u>\$ 82,587</u>	<u>\$ 394,082</u>	<u>\$ 40,526</u>
<b>Change in plan assets</b>				
Plan assets at beginning of year	\$ 317,510	\$ —	\$ 334,582	\$ —
Employer contributions	2,888	3,709	5,115	3,210
Employee contributions	—	416	—	390
Actual return on plan assets	38,564	—	(11,325)	—
Benefits paid	(24,380)	(4,125)	(30,741)	(3,600)
Plan assets at fair value at end of year	<u>\$ 334,582</u>	<u>\$ —</u>	<u>\$ 297,631</u>	<u>\$ —</u>
Accrued benefit costs and funded status of the plans	<u>\$ (112,640)</u>	<u>\$ (82,587)</u>	<u>\$ (96,451)</u>	<u>\$ (40,526)</u>
Accumulated benefit obligation	<u>\$ 447,222</u>		<u>\$ 394,082</u>	
<b>Weighted average assumptions used to determine accumulated benefit obligation and accrued benefit costs</b>				
Discount rate	3.67%	3.64%	4.35%	4.27%
<b>Weighted average assumptions used to determine net periodic benefit costs</b>				
Discount rate	4.23%	4.19%	3.67%	3.64%/4.18%
Expected rate of return on plan assets	7.60%	—	7.60%	—
Rate of compensation increase	—	—	—	—
<b>Amounts in accumulated other comprehensive loss recognized in net periodic benefit cost</b>				
Actuarial (gain) loss, net of tax	\$ 2,363	\$ (289)	\$ 4,640	\$ (576)
Prior service credits, net of tax	(8)	29	(854)	15
Total	<u>\$ 2,355</u>	<u>\$ (260)</u>	<u>\$ 3,786</u>	<u>\$ (561)</u>
<b>Amounts in accumulated other comprehensive loss not yet recognized in net periodic benefit cost</b>				
Actuarial (gain) loss, net of tax	\$ 99,152	\$ (8,815)	\$ 93,509	\$ (15,377)
Prior service credits, net of tax	(366)	—	(343)	(32,514)
Total	<u>\$ 98,786</u>	<u>\$ (8,815)</u>	<u>\$ 93,166</u>	<u>\$ (47,891)</u>
<b>Amounts in accumulated other comprehensive loss expected to be recognized in net periodic benefit cost in the subsequent year</b>				
Actuarial (gain) loss	\$ (5,307)	\$ 403	\$ (4,222)	\$ 1,229
Prior service credits	—	8	—	2,544
Total	<u>\$ (5,307)</u>	<u>\$ 411</u>	<u>\$ (4,222)</u>	<u>\$ 3,773</u>

Our benefit obligations are determined by discounting each future year's expected benefit cash flow using the corresponding spot rates along a yield curve that is derived from the monthly bid-price data of bonds that are rated high grade by either Moody's Investor Service or Standard and Poor's Rating Services. The bond types included are noncallable bonds, private placement bonds that are traded among qualified institutional buyers and are at least two years from date of issuance, bonds with a make-whole provision, and bonds issued by foreign corporations that are denominated in U.S. dollars. Excluded are bonds that are callable, sinkable and puttable as well as those for which the quoted yield-to-maturity is zero. Using the bonds from this universe that have a yield higher than the regression mean yield curve for the full universe, regression analysis is used to determine the best-fitting curve, which gives a good fit to the data at both long and short maturities. The resulting

regressed coupon yield curve is smoothed continuously along its entire length and represents an unbiased average of the observed market data.

In the first quarter of 2016, we changed the method we use to estimate the interest cost component of net periodic benefit cost for our defined benefit pension and other postretirement benefit plans. Historically, we estimated the interest cost component using a single weighted-average discount rate derived from the yield curve used to measure the benefit obligation at the beginning of the year. We elected to use a full yield curve approach in the estimation of this component of benefit cost by applying the specific spot rates along the yield curve used in the determination of the benefit obligation to the relevant projected cash flows. We made this change to improve the correlation between projected benefit cash flows and the corresponding yield curve spot rates, and to provide a more precise measurement of interest costs. This change does not affect the measurement of our total benefit obligations, as the change in the interest cost is completely offset in the actuarial (gain) loss reported. We accounted for this change as a change in estimate and, accordingly, accounted for it prospectively starting in the first quarter of 2016. The discount rate that we used to measure interest cost as of December 31, 2016 was approximately 3.8%. The discount rate that we measured at December 31, 2016 and would have used for interest cost under our prior estimation technique was approximately 4.5%. The reduction in interest cost as of December 31, 2016, associated with this change in estimate was approximately \$3.6 million. The discount rate that we used to measure interest cost was approximately 3.6% and 3.3% as of December 31, 2017 and 2018, respectively.

Interest rates used in these valuations are key assumptions, including discount rates used in determining the present value of future benefit payments and expected return on plan assets, which are reviewed and updated on an annual basis. The discount rates reflect market rates for high-quality corporate bonds. We consider current market conditions, including changes in interest rates, in making assumptions. The Society of Actuaries (“SOA”) issued new mortality and mortality improvement tables in 2014, and modified those tables in 2015, 2016, 2017 and 2018. Our December 31, 2018 valuation used mortality and improvement tables based on the SOA tables, adjusted to reflect (1) an ultimate rate of mortality improvement consistent with both historical experience and U.S. Social Security long-term projections, and (2) a shorter transition period to reach the ultimate rate, which is consistent with historical patterns. In establishing the expected return on assets assumption, we review the asset allocations considering plan maturity and develop return assumptions based on different asset classes. The return assumptions are established after reviewing historical returns of broader market indexes, as well as historical performance of the investments in the plan. Our pension plan assets are managed in accordance with an investment policy adopted by the pension committee, as discussed below.

*Plan Assets.* The investment policy of the Plan includes target allocation percentages of approximately 49% for investments in equity securities (29% U.S. equities and 20% non-U.S. equities), 36% for investments in fixed income securities and 15% for investments in other securities, which is broken down further into 5% for investments in hedge fund of funds and 10% for investments in real estate fund of funds. Plan assets include investments in both U.S. and non-U.S. equity funds. Fixed income investments include a long duration bond fund, a high yield bond fund and an emerging markets debt fund. The funds in which the plan’s assets are invested are institutionally managed and have diversified exposures into multiple asset classes implemented with over 63 investment managers. The guidelines and objectives of the funds are congruent with the Intelsat investment policy statement.

The target and actual asset allocation of our pension plan assets were as follows:

Asset Category	As of December 31, 2017		As of December 31, 2018	
	Target Allocation	Actual Allocation	Target Allocation	Actual Allocation
Equity securities	49%	50%	49%	45%
Debt securities	36%	35%	36%	36%
Other securities	15%	15%	15%	19%
Total	100%	100%	100%	100%

The fair values of our pension plan assets by asset category are as follows (in thousands):

Asset Category	Fair Value Measurements at			
	December 31, 2018	Level 1	Level 2	Level 3
<b>Equity Securities</b>				
U.S. Large-Cap (1)	\$ 62,243	\$ 62,243	\$ —	\$ —
U.S. Small/Mid-Cap (2)	15,739	15,739	—	—
World Equity Ex-US (3)	54,994	54,994	—	—
<b>Fixed Income Securities</b>				
Long Duration Bonds (4)	91,278	91,278	—	—
High Yield Bonds (5)	8,440	8,440	—	—
Emerging Market Fixed income (Non-US) (6)	8,923	8,923	—	—
<b>Other Securities</b>				
Hedge Funds (7)	18,062			
Core Property Fund (8)	37,559			
Cash and income earned but not yet received	393			
<b>Total</b>	<b>\$ 297,631</b>			

Asset Category	Fair Value Measurements at			
	December 31, 2017	Level 1	Level 2	Level 3
<b>Equity Securities</b>				
U.S. Large-Cap (1)	\$ 78,076	\$ 78,076	\$ —	\$ —
U.S. Small/Mid-Cap (2)	19,952	19,952	—	—
World Equity Ex-US (3)	67,835	67,835	—	—
<b>Fixed Income Securities</b>				
Short Duration Bonds (4)	98,421	98,421	—	—
High Yield Bonds (5)	9,419	9,419	—	—
Emerging Market Fixed income (Non-US) (6)	9,127	9,127	—	—
<b>Other Securities</b>				
Hedge Funds (7)	17,121			
Core Property Fund (8)	34,486			
Income earned but not yet received	145			
<b>Total</b>	<b>\$ 334,582</b>			

- (1) US large cap equity fund invests primarily in a portfolio of common stocks included in the S&P 500 Index, as well as other equity securities and derivative instruments whose value is derived from the performance of the S&P 500.
- (2) The US small/mid cap equity includes the U.S. Small/Mid Cap Equity Fund and the Extended Market Index Fund. The U.S. Small/Mid Cap Equity Fund will invest primarily in U.S. small- and mid-cap stocks with market capitalization ranges similar to those found in the FTSE Russell 2500 Index. The Extended Markets Index Fund aims to produce investment results that correspond to the performance of the FTSE/Russell Small Cap Completeness Index.
- (3) World equity ex-US fund invests primarily in common stocks and other equity securities whose issuers comprise a broad range of capitalizations and are located outside of the U.S. The fund invests primarily in developed countries but may also invest in emerging markets.
- (4) The Long Duration Bond Fund will invest primarily in long-duration government and corporate fixed income securities and use derivative instruments (including interest rate swaps and Treasury futures contracts) for the purpose of managing the overall duration and yield curve exposure of the Fund's portfolio. Short duration bond fund includes the Opportunistic Income fund and the Limited Duration Bond Fund.
- (5) High yield bond fund seeks to maximize return by investing primarily in a diversified portfolio of higher yielding, lower rated fixed income securities. The fund will invest primarily in securities rated below investment grade, including corporate bonds, convertible and preferred securities and zero coupon obligations.

- (6) Emerging markets debt fund seeks to maximize return investing in fixed income securities of emerging markets issuers. The fund will invest primarily in U.S. dollar denominated debt securities of government, government-related and corporate issuers in emerging market countries, as well as entities organized to restructure the outstanding debt of such issuers.
- (7) Hedge fund seeks to provide returns that are different from (less correlated with) investments in more traditional asset classes. The fund will pursue its investment objective by investing substantially all of its assets in various hedge funds. The fund has semi-annual redemptions in June and December with a 95 days pre-notification period, and a two year lock-up on all purchases which have expired.
- (8) Core property fund is a fund of funds that invests in direct commercial property funds primarily in the U.S. The fund is meant to provide current income-oriented returns, diversification, and modest inflation protection to an overall investment portfolio. Total returns are expected to be somewhere between stocks and bonds, with moderate volatility and low correlation to public markets. The fund has quarterly redemptions with a 95 days pre-notification period, and no lock-up period.

Our plan assets are measured at fair value. FASB ASC 820 prioritizes the inputs used in valuation techniques including Level 1, Level 2 and Level 3 (see Note 2 (d)—Significant Accounting Policies—Fair Value Measurements).

The majority of our plan assets are valued using measurement inputs which include unadjusted prices in active markets and we have therefore classified these assets within Level 1 of the fair value hierarchy. Our other securities include Hedge Funds and Core Property Funds, which are measured at fair value using the net asset value per share practical expedient, and are not classified in the fair value hierarchy.

Net periodic pension benefit costs included the following components (in thousands):

	Year Ended December 31, 2016	Year Ended December 31, 2017	Year Ended December 31, 2018
Interest cost	\$ 16,183	\$ 14,778	\$ 14,428
Expected return on plan assets	(25,535)	(24,410)	(24,482)
Amortization of unrecognized net loss	3,370	3,751	5,307
Total benefit	<u>\$ (5,982)</u>	<u>\$ (5,881)</u>	<u>\$ (4,747)</u>

We had accrued benefit costs at December 31, 2017 and 2018 of \$112.6 million and \$96.4 million, respectively, related to the pension benefits, of which \$0.6 million for each year were recorded within other current liabilities, and \$112.0 million and \$95.8 million were recorded in other long-term liabilities, respectively.

Net periodic other postretirement benefit costs included the following components (in thousands):

	Year Ended December 31, 2016	Year Ended December 31, 2017	Year Ended December 31, 2018
Interest cost	\$ 3,363	\$ 2,869	\$ 2,314
Amortization of prior service cost	—	(8)	(854)
Amortization of unrecognized net (gain) loss	(8)	(455)	(630)
Total costs	<u>\$ 3,355</u>	<u>\$ 2,406</u>	<u>\$ 830</u>

We had accrued benefit costs at December 31, 2017 and 2018 related to the other postretirement benefits of \$82.6 million and \$40.5 million, respectively, of which \$4.1 million and \$3.1 million were recorded in other current liabilities, and \$78.5 million and \$37.4 million were recorded in other long-term liabilities, respectively.

Depending on our actual future health care claims, our actual costs may vary significantly from those projected above. As of December 31, 2017, and December 31, 2018, the assumed health care cost trend rates prior to Medicare were 6.6% and 6.3%, respectively. These rates are expected to decrease annually to an ultimate rate of 4.5% by December 31, 2038. Increasing the assumed health care cost trend rate by 1% each year would increase the other postretirement benefits obligation as of December 31, 2018 by \$3.8 million. Decreasing this trend rate by 1% each year would reduce the other postretirement benefits obligation as of December 31, 2018 by \$3.2 million. A 1% increase in the assumed health care cost trend rate would have



increased the net periodic other postretirement benefits cost by \$0.2 million and a 1% decrease would have decreased the cost by \$0.2 million for 2018.

The benefits expected to be paid in each of the next five years and in the aggregate for the five years thereafter are as follows (in thousands):

	<u>Pension Benefits</u>	<u>Other Post- retirement Benefits</u>
2019	\$ 37,034	\$ 3,107
2020	28,141	3,129
2021	27,013	3,132
2022	27,021	3,129
2023	27,082	3,087
2024 to 2028	127,278	14,231
Total	<u>\$ 273,569</u>	<u>\$ 29,815</u>

**(b) Other Retirement Plans**

We maintain a defined contribution retirement plan, qualified under the provisions of Section 401(k) of the Internal Revenue Code, for our employees in the United States. We recognized compensation expense for this plan of \$10.3 million, \$7.8 million and \$7.9 million for the years ended December 31, 2016, 2017 and 2018, respectively. We also maintain other defined contribution retirement plans in several non-U.S. jurisdictions, but such plans are not material to our financial position or results of operations.

**Note 8 Receivables**

Receivables were comprised of the following (in thousands):

	<u>As of December 31, 2017</u>	<u>As of December 31, 2018</u>
Service charges:		
Billed	\$ 234,724	\$ 292,634
Unbilled	11,025	—
Other	5,143	7,301
Allowance for doubtful accounts	(29,669)	(28,542)
Total	<u>\$ 221,223</u>	<u>\$ 271,393</u>

As a result of the adoption of ASC 606, the total receivables balance as of December 31, 2018 does not reflect unbilled service charges, which are now presented as part of the contract assets on the balance sheet. Unbilled service charges as of December 31, 2017 represent amounts earned and accrued as receivables from customers for services rendered prior to the end of the reporting period.

**Note 9 Satellites and Other Property and Equipment**

**(a) Satellites and Other Property and Equipment, net**

Satellites and other property and equipment, net were comprised of the following (in thousands):

	<u>As of December 31, 2017</u>	<u>As of December 31, 2018</u>
Satellites and launch vehicles	\$ 10,653,213	\$ 10,786,802
Information systems and ground segment	808,203	894,796
Buildings and other	264,417	273,155
Total cost	11,725,833	11,954,753
Less: accumulated depreciation	(5,802,214)	(6,443,051)
Total	<u>\$ 5,923,619</u>	<u>\$ 5,511,702</u>

Satellites and other property and equipment are stated at historical cost, with the exception of satellites that have been impaired. Satellites and other property and equipment acquired as part of an acquisition are based on their fair value at the date of acquisition.

Satellites and other property and equipment, net as of December 31, 2017 and 2018 included construction-in-progress of \$705.8 million and \$371.3 million, respectively. These amounts relate primarily to satellites under construction and related launch services. Interest costs of \$60.0 million and \$30.2 million were capitalized during the years ended December 31, 2017 and 2018, respectively. Additionally, we recorded depreciation expense of \$646.4 million, \$665.6 million and \$649.1 million during the years ended December 31, 2016, 2017 and 2018, respectively.

We have entered into launch contracts for the launch of both specified and unspecified future satellites. Each of these launch contracts provides that such contract may be terminated at our option, subject to payment of a termination fee that increases as the applicable launch date approaches. In addition, in the event of a failure of any launch, we may exercise our right to obtain a replacement launch within a specified period following our request for re-launch.

### ***(b) Recent Satellite Launches***

Horizons 3e, a satellite owned by a joint venture between the Company and JSAT International, Inc. ("JSAT"), was successfully launched on September 25, 2018 and will complete the Intelsat Epic<sup>NG</sup> constellation. Horizons 3e will bring high-throughput satellite ("HTS") solutions in both C- and Ku-bands to broadband, mobility and government customers in the Asia-Pacific Ocean region from its orbital slot at 169°E. Horizons 3e is the first Intelsat Epic<sup>NG</sup> satellite to feature a multiport amplifier that enables power portability across all Ku-band spot beams. This enhanced, advanced digital payload features full beam interconnectivity in three commercial bands and significant upgrades to power, efficiency and coverage flexibility. Horizons 3e entered into service in January 2019.

Intelsat 38, a customized Ku-band payload positioned on a third-party satellite, was successfully launched on September 25, 2018. Intelsat 38 will replace Intelsat 12 at the 45°E location and host direct-to-home ("DTH") platforms for Central and Eastern Europe as well as the Asia-Pacific region. The satellite will also provide connectivity for corporate networks and government applications in Africa. Intelsat 38 entered into service in January 2019.

Intelsat 37e, the fifth satellite in the Intelsat Epic<sup>NG</sup> fleet, was successfully launched on September 29, 2017. The all-digital Intelsat 37e is the first high-throughput ("HTS") satellite to offer full, high-resolution interconnectivity between C-, Ku- and Ka- bands, delivering additional services and improved throughput to support enterprise, broadband, government and mobility applications in the Americas, Africa and Europe. Intelsat 37e entered into service in March 2018.

On July 5, 2017, we successfully launched our Intelsat 35e satellite into orbit. The fourth of our Intelsat Epic<sup>NG</sup> next-generation HTS satellites, Intelsat 35e will deliver high-performance services in the C- and Ku-bands. The Intelsat 35e Ku-band services include a customized high power wide beam for direct-to-home ("DTH") service delivery in the Caribbean, as well as services for mobility and government applications in the Caribbean, trans-Europe to Africa and the African continent. Intelsat 35e entered into service in August 2017.

Intelsat 32e, a customized payload positioned on a third-party satellite, was successfully launched on February 14, 2017. Intelsat 32e is the third of six in our planned Intelsat Epic<sup>NG</sup> fleet, featuring high-performance spot beams. Intelsat 32e increases our service capabilities over the in-demand North Atlantic and Caribbean regions, supplying services for applications such as in-flight connectivity for commercial flights and passenger and commercial broadband for cruise lines and shipping vessels. Intelsat 32e entered into service in March 2017.

### ***(c) Satellite Health***

Our satellite fleet is diversified by manufacturer and satellite type, and as a result, our fleet is generally healthy. We have experienced some technical problems with our current fleet but have been able to minimize the impact of these problems on our customers, our operations and our business in recent years. Many of these problems have been component failures and anomalies that have had little long-term impact to date on the overall transponder availability in our satellite fleet. All of our

satellites have been designed to accommodate an anticipated rate of equipment failures with adequate redundancy to meet or exceed their orbital design lives, and to date, this redundancy design scheme has proven effective. After each anomaly we have generally restored services for our customers on the affected satellite, provided alternative capacity on other satellites in our fleet, or provided capacity that we purchased from other satellite operators.

### ***Significant Anomalies***

During orbit raising of Intelsat 33e in September 2016, the satellite experienced a malfunction of the main satellite thruster. Orbit raising was subsequently completed using a different set of satellite thrusters. The anomaly resulted in a delay of approximately three months in reaching the geostationary orbit, as well as a reduction in the projected lifetime of the satellite. Intelsat 33e entered service in January 2017. In addition, in February 2017, measurements indicated higher than expected fuel use while performing stationkeeping maneuvers. There is no evidence of any impact to the communications payload. A Failure Review Board was established to determine the cause of the primary thruster failure and a separate team to investigate the fuel use anomaly. We filed a loss claim with our insurers in March 2017 relating to the reduction of life. As of December 31, 2018, we have settled with all insurers and received total collection and settlement payments of \$70 million in cash.

### **Note 10 Investments**

In January 2016, the FASB issued ASU 2016-01, *Financial Instruments – Overall (Topic 825)*, to require equity investments (except those accounted for under the equity method of accounting or those that result in consolidation of the investee) to be measured at fair value with changes in fair value recognized in net income. An entity may choose to measure equity investments that do not have readily determinable fair values at cost minus impairment, if any, plus or minus changes resulting from observable price changes in orderly transactions for the identical or a similar investment of the same issuer (the measurement alternative). In February 2018, the FASB issued ASU 2018-03, *Technical Corrections and Improvements to Financial Instruments Overall (Subtopic 825-10)* to clarify certain aspects of the guidance issued in ASU 2016-01 that was effective for interim and annual periods beginning after December 15, 2017, including clarification that ASU 2016-01 related to equity investments without readily determinable fair values (including disclosure requirements) should be applied prospectively to equity investments that exist as of the date of adoption. We adopted the standards in the first quarter of 2018 and have elected the measurement alternative. We considered available information for any observable orderly transactions for identical or similar investments and did not make any upward or downward adjustments to our investments. The adoption of the standards did not have a material impact on our consolidated financial statements and associated disclosures.

We have ownership interests in two entities that meet the criteria of a VIE: Horizons Satellite Holdings, LLC (“Horizons Holdings”) and Horizons-3 Satellite LLC (“Horizons 3”), which are discussed in further detail below, including our analyses of the primary beneficiary determination as required under FASB ASC Topic 810, *Consolidation* (“FASB ASC 810”). We also own noncontrolling investments recognized under the measurement alternative, discussed further below.

#### ***(a) Horizons Holdings***

Our first joint venture with JSAT is named Horizons Satellite Holdings, LLC, and consists of two investments: Horizons-1 Satellite LLC (“Horizons-1”) and Horizons-2 Satellite LLC (“Horizons-2”). Horizons Holdings borrowed from JSAT a portion of the funds necessary to finance the construction of the Horizons 2 satellite pursuant to a loan agreement. The borrowing was subsequently repaid. We provide certain services to the joint venture and in return utilize capacity from the joint venture.

We have determined that this joint venture meets the criteria of a VIE under FASB ASC 810, and we have concluded that we are the primary beneficiary because decisions relating to any future relocation of the Horizons 2 satellite, the most significant asset of the joint venture, are effectively controlled by us. In accordance with FASB ASC 810, as the primary beneficiary, we consolidate Horizons Holdings within our consolidated financial statements. Total assets of Horizons Holdings were \$38.7 million and \$28.8 million as of December 31, 2017 and 2018, respectively. Total liabilities at both dates were nominal.

We have a revenue sharing agreement with JSAT related to services sold on the Horizons 1 and Horizons 2 satellites. We are responsible for billing and collection for such services, and we remit 50% of the revenue, less applicable fees and commissions, to JSAT. Amounts payable to JSAT related to the revenue sharing agreement, net of applicable fees and commissions, from the Horizons 1 and Horizons 2 satellites were \$5.4 million and \$5.5 million as of December 31, 2017 and 2018, respectively.

***(b) Horizons-3 Satellite LLC***

On November 4, 2015, we entered into a new joint venture agreement with JSAT. The joint venture, named Horizons 3, was formed for the purpose of developing, launching, managing, operating and owning a high-performance satellite located at the 169°E orbital location.

Horizons 3, which is 50% owned by each of Intelsat and JSAT, was set up with a joint share of management authority and equal rights to profits and revenues from the joint venture. Similar to Horizons Holdings, we have a revenue sharing agreement with JSAT related to services sold on the Horizons 3 satellite. In addition, we are responsible for billing and collection for such services, and we remit 50% of the revenue, less applicable fees and commissions, to JSAT.

We have determined that this joint venture meets the criteria of a VIE under FASB ASC 810, however we have concluded that we are not the primary beneficiary and therefore do not consolidate Horizons 3. The assessment considered both quantitative and qualitative factors, including an analysis of voting power and other means of control of the joint venture as well as each owner's exposure to risk of loss or gain. Because we and JSAT equally share control over the operations of the joint venture and also equally share exposure to risk of losses or gains, we concluded that we are not the primary beneficiary of Horizons 3. Our investment, included within other assets in our consolidated balance sheets, is accounted for using the equity method of accounting. The investment balance was \$61.8 million and \$109.9 million as of December 31, 2017 and 2018, respectively.

In connection with our investment in Horizons 3, we entered into a capital contribution and subscription agreement which requires us to fund our 50% share of the amounts due in order to maintain our respective 50% interest in the joint venture. Pursuant to this agreement, we made contributions of \$27.4 million and \$41.2 million during the years ended December 31, 2017 and 2018, respectively. In addition, our indirect subsidiary that holds our investment in Horizons 3 has entered into a security and pledge agreement with Horizons 3, pursuant to which it has granted a security interest in its membership interests in Horizons 3. Further, our indirect subsidiary has granted a security interest to Horizons 3 in its customer capacity contracts and its ownership interest in its wholly-owned subsidiary that will hold the U.S. Federal Communications Commission license required for the joint venture's operations.

***(c) Investments Without Readily Determinable Fair Values***

Our investments without readily determinable fair values recorded in other assets in our consolidated balance sheets had a total carrying value of \$54.7 million and \$73.7 million, consisting of five and six separate noncontrolling investments as of December 31, 2017 and 2018, respectively.

***(d) Equity Attributable to Intelsat S.A. and Non-controlling Interests***

The following tables present changes in equity attributable to the Company and equity attributable to our noncontrolling interests, which is included in the equity section of our consolidated balance sheet (in thousands):

	<u>Intelsat S.A. Shareholders' Deficit</u>	<u>Noncontrolling Interests</u>	<u>Total Shareholders' Deficit</u>
Balance at January 1, 2017	\$ (3,634,145)	\$ 24,147	\$ (3,609,998)
Net income (loss)	(178,728)	3,914	(174,814)
Dividends paid to noncontrolling interests	—	(8,755)	(8,755)
Share-based compensation	16,472	—	16,472
Postretirement/pension liability adjustment	(11,801)	—	(11,801)
Other comprehensive income	332	—	332
Balance at December 31, 2017	<u>\$ (3,807,870)</u>	<u>\$ 19,306</u>	<u>\$ (3,788,564)</u>

	<u>Intelsat S.A. Shareholders' Deficit</u>	<u>Noncontrolling Interests</u>	<u>Total Shareholders' Deficit</u>
Balance at January 1, 2018	\$ (3,807,870)	\$ 19,306	\$ (3,788,564)
Net income (loss)	(599,605)	3,915	(595,690)
Dividends paid to noncontrolling interests	—	(8,825)	(8,825)
Common shares and 2025 Convertible Notes offering	368,253	—	368,253
Share-based compensation	10,035	—	10,035
Postretirement/pension liability adjustment	44,695	—	44,695
Other comprehensive loss	(351)	—	(351)
Adoption of accounting standards <sup>(1)</sup>	(112,162)	—	(112,162)
Balance at December 31, 2018	<u>\$ (4,097,005)</u>	<u>\$ 14,396</u>	<u>\$ (4,082,609)</u>

(1) See Note 2—Significant Accounting Policies and Note 14—Income Taxes

## Note 11 Goodwill and Other Intangible Assets

The carrying amounts of goodwill and acquired intangible assets not subject to amortization consist of the following (in thousands):

	<u>As of December 31, 2017</u>	<u>As of December 31, 2018</u>
Goodwill (1)	\$ 2,620,627	\$ 2,620,627
Orbital locations	2,387,700	2,387,700
Trade name	65,200	65,200

(1) Net of accumulated impairment losses of \$4,160,200.

We account for goodwill and other non-amortizable intangible assets in accordance with FASB ASC 350, and have deemed these assets to have indefinite lives. Therefore, these assets are not amortized but are instead tested on an annual basis for impairment during the fourth quarter, or whenever events or changes in circumstances indicate that the carrying amount may not be fully recoverable.

### (a) Goodwill

We perform our annual goodwill impairment assessment using a qualitative approach to identify and consider the significance of relevant key factors, events, and circumstances that affect the fair value of our reporting unit. We are required to

identify reporting units at a level below the Company's identified operating segments for impairment analysis. We have identified only one reporting unit for the goodwill impairment test.

*Assumptions and Approach Used.* We make our qualitative evaluation considering, among other things, general macroeconomic conditions, industry and market considerations, cost factors, overall financial performance and other relevant entity-specific events.

Based on our review at December 31, 2017, since the fixed and mobile satellite services industry is under pressure (pricing, over-supply, value-chain inefficiencies) and since comparable companies have demonstrated negative to minimal revenue growth with equities underperforming, we determined that a quantitative assessment of goodwill was appropriate.

We determined the estimated fair value of our reporting unit using discounted cash flow analysis, along with independent source data related to the comparative market multiples and, when available, recent transactions, each of which is considered a Level 3 input within the fair value hierarchy under FASB ASC 820. The discounted cash flows were derived from a five-year projection of cash flows plus a residual value, with the resulting projected cash flows discounted at an appropriate weighted average cost of capital.

In estimating the undiscounted cash flows, we primarily used our internally prepared budgets and forecast information. The key assumptions included in our model were projected growth rates, cost of capital, effective tax rates, and industry and economic trends. A change in the estimated future cash flows or other assumptions could change our estimated fair values and result in future impairments. Based on our quantitative analysis as described above, we concluded that there was no impairment for goodwill at December 31, 2017.

Based on our examination of the qualitative factors at December 31, 2018, we concluded that there was not a likelihood of more than 50% that the fair value of our reporting unit was less than its carrying value; therefore, no further testing of goodwill was required.

**(b) Orbital Locations, Trade Name and other Intangible Assets**

Intelsat is authorized by governments to operate satellites at certain orbital locations—i.e., longitudinal coordinates along the Clarke Belt. The Clarke Belt is the part of space approximately 35,800 kilometers above the plane of the equator where geostationary orbit may be achieved. Various governments acquire rights to these orbital locations through filings made with the ITU, a sub-organization of the United Nations. We will continue to have rights to operate satellites at our orbital locations so long as we maintain our authorizations to do so.

Our rights to operate at orbital locations can be used and sold individually; however, since satellites and customers can be and are moved from one orbital location to another, our rights are used in conjunction with each other as a network that can be adapted to meet the changing needs of our customers and market demands. Due to the interchangeable nature of orbital locations, the aggregate value of all of the orbital locations is used to measure the extent of impairment, if any.

At December 31, 2017 and 2018, we determined, based on an examination of qualitative factors, that there was no impairment of our orbital locations and trade name.

The carrying amount and accumulated amortization of acquired intangible assets subject to amortization consisted of the following (in thousands):

	As of December 31, 2017			As of December 31, 2018		
	Gross Carrying Amount	Accumulated Amortization	Net Carrying Amount	Gross Carrying Amount	Accumulated Amortization	Net Carrying Amount
Backlog and other	\$ 743,760	\$ (686,425)	\$ 57,335	\$ 743,760	\$ (701,445)	\$ 42,315
Customer relationships	534,030	(241,781)	292,249	534,030	(265,242)	268,788
Total	\$ 1,277,790	\$ (928,206)	\$ 349,584	\$ 1,277,790	\$ (966,687)	\$ 311,103

Intangible assets are amortized based on the expected pattern of consumption. We recorded amortization expense of \$48.5 million, \$42.3 million and \$38.5 million for the years ended December 31, 2016, 2017 and 2018, respectively.

Scheduled amortization charges for the intangible assets over the next five years are as follows (in thousands):

Year	Amount
2019	\$ 34,351
2020	31,103
2021	28,635
2022	25,479
2023	21,353

Our policy is to expense all costs incurred to renew or extend the terms of our intangible assets. The renewal expenses for the years ended December 31, 2016, 2017 and 2018 were immaterial to our consolidated results of operations.

## Note 12 Long-Term Debt

The carrying values and fair values of our notes payable and long-term debt were as follows (in thousands):

	As of December 31, 2017		As of December 31, 2018	
	Carrying Value	Fair Value	Carrying Value	Fair Value
<i>Intelsat S.A.:</i>				
4.5% Convertible Senior Notes due June 2025	\$ —	\$ —	\$ 402,500	\$ 590,427
Unamortized prepaid debt issuance costs and discount on 4.5% Convertible Senior Notes	—	—	(149,083)	—
<i>Total Intelsat S.A. obligations</i>	<u>—</u>	<u>—</u>	<u>253,417</u>	<u>590,427</u>
<i>Intelsat Luxembourg:</i>				
6.75% Senior Notes due June 2018	\$ 96,650	\$ 94,717	\$ —	\$ —
Unamortized prepaid debt issuance costs on 6.75% Senior Notes	(78)	—	—	—
7.75% Senior Notes due June 2021	2,000,000	1,070,000	421,219	381,203
Unamortized prepaid debt issuance costs on 7.75% Senior Notes	(13,325)	—	(2,062)	—
8.125% Senior Notes due June 2023	1,000,000	515,000	1,000,000	765,000
Unamortized prepaid debt issuance costs on 8.125% Senior Notes	(8,562)	—	(7,256)	—
12.5% Senior Notes due November 2024	403,350	265,052	403,350	376,807
Unamortized prepaid debt issuance costs and discount on 12.5% Senior Notes	(209,165)	—	(198,620)	—
<i>Total Intelsat Luxembourg obligations</i>	<u>3,268,870</u>	<u>1,944,769</u>	<u>1,616,631</u>	<u>1,523,010</u>
<i>Intelsat Connect Finance:</i>				
12.5% Senior Notes due April 2022	\$ 731,892	\$ 640,406	\$ —	\$ —
Unamortized prepaid debt issuance costs and discount on 12.5% Senior Notes	(267,108)	—	—	—
9.5% Senior Notes due February 2023	—	—	1,250,000	1,062,500
Unamortized prepaid debt issuance costs and discount on 9.5% Senior Notes	—	—	(34,904)	—
<i>Total Intelsat Connect Finance obligations</i>	<u>464,784</u>	<u>640,406</u>	<u>1,215,096</u>	<u>1,062,500</u>
<i>Intelsat Jackson:</i>				
9.5% Senior Secured Notes due September 2022	\$ 490,000	\$ 565,950	\$ 490,000	\$ 556,150
Unamortized prepaid debt issuance costs and discount on 9.5% Senior Secured Notes	(17,556)	—	(14,545)	—
8% Senior Secured Notes due February 2024	1,349,678	1,423,910	1,349,678	1,390,168
Unamortized prepaid debt issuance costs and premium on 8.0% Senior Secured Notes	(5,378)	—	(4,671)	—
7.25% Senior Notes due October 2020	2,200,000	2,068,000	—	—

Unamortized prepaid debt issuance costs and premium on 7.25% Senior Notes	(5,151)	—	—	—
7.5% Senior Notes due April 2021	1,150,000	1,040,750	—	—
Unamortized prepaid debt issuance costs on 7.5% Senior Notes	(5,415)	—	—	—
5.5% Senior Notes due August 2023	2,000,000	1,630,000	1,985,000	1,717,025
Unamortized prepaid debt issuance costs on 5.5% Senior Notes	(12,977)	—	(10,859)	—
9.75% Senior Notes due July 2025	1,500,000	1,455,000	1,485,000	1,488,713
Unamortized prepaid debt issuance costs on 9.75% Senior Notes	(20,315)	—	(18,230)	—
8.5% Senior Notes due October 2024	—	—	2,950,000	2,832,000
Unamortized prepaid debt issuance costs and premium on 8.5% Senior Notes	—	—	(15,310)	—
Senior Secured Credit Facilities due June 2019	1,095,000	1,093,631	—	—
Unamortized prepaid debt issuance costs and discount on Senior Secured Credit Facilities	(4,636)	—	—	—
Senior Secured Credit Facilities due November 2023	2,000,000	1,947,500	2,000,000	1,940,000
Unamortized prepaid debt issuance costs and discount on Senior Secured Credit Facilities	(28,600)	—	(26,965)	—
Senior Secured Credit Facilities due January 2024	—	—	395,000	395,988
Unamortized prepaid debt issuance costs and discount on Senior Secured Credit Facilities	—	—	(1,933)	—
6.625% Senior Secured Credit Facilities due January 2024	—	—	700,000	694,750
Unamortized prepaid debt issuance costs and discount on Senior Secured Credit Facilities	—	—	(3,427)	—
<i>Total Intelsat Jackson obligations</i>	<u>11,684,650</u>	<u>11,224,741</u>	<u>11,258,738</u>	<u>11,014,794</u>
<i>Eliminations:</i>				
7.75% Senior Notes of Intelsat Luxembourg due June 2021 owned by Intelsat Connect Finance	\$ (979,168)	\$ (523,855)	\$ —	\$ —
Unamortized prepaid debt issuance costs on 7.75% Senior Notes	6,524	—	—	—
8.125% Senior Notes of Intelsat Luxembourg due June 2023 owned by Intelsat Connect Finance and Intelsat Jackson	(111,663)	(57,506)	(111,663)	(85,422)
Unamortized prepaid debt issuance costs on 8.125% Senior Notes	956	—	810	—
12.5% Senior Notes of Intelsat Luxembourg due November 2024 owned by Intelsat Connect Finance, Intelsat Jackson, and Intelsat Envision	(402,595)	(264,556)	(403,245)	(376,708)
Unamortized prepaid debt issuance costs and discount on 12.5% Senior Notes	208,775	—	198,568	—
Unamortized prepaid debt issuance costs and discount on 12.5% Senior Notes due 2022	67,525	—	—	—
<i>Total eliminations:</i>	<u>(1,209,646)</u>	<u>(845,917)</u>	<u>(315,530)</u>	<u>(462,130)</u>
Total Intelsat S.A. long-term debt	<u>\$ 14,208,658</u>	<u>\$ 12,963,999</u>	<u>\$ 14,028,352</u>	<u>\$ 13,728,601</u>
<i>Less:</i>				
Current portion of long-term debt	96,572	—	—	—
Total long-term debt, excluding current portion	<u>\$ 14,112,086</u>	<u>\$ —</u>	<u>\$ 14,028,352</u>	<u>\$ —</u>

The fair value for publicly traded instruments is determined using quoted market prices, and for non-publicly traded instruments, fair value is based upon composite pricing from a variety of sources, including market leading data providers, market makers and leading brokerage firms. Substantially all of the inputs used to determine the fair value of our debt are classified as Level 1 inputs within the fair value hierarchy from FASB ASC 820, except our senior secured credit facilities, the inputs for which are classified as Level 2.

Required principal repayments of long-term debt over the next five years and thereafter as of December 31, 2018 are as follows (in thousands):



Year	Amount
2019	\$ —
2020	—
2021	421,219
2022	490,000
2023	6,123,337
2024 and thereafter	7,282,283
Total principal repayments	14,316,839
Unamortized discounts, premiums and prepaid issuance costs	(288,487)
Total Intelsat S.A. long-term debt	\$ 14,028,352

### ***2018 Debt and Other Capital Markets Transactions***

#### *March 2018/May 2018 ICF Tender Offer for Intelsat Luxembourg Notes and Redemption*

In March 2018, ICF commenced a cash tender offer to purchase any and all of the outstanding aggregate principal amount of the 6.75% Senior Notes due 2018 (the “2018 Luxembourg Notes”). ICF purchased a total of \$31.2 million aggregate principal amount of the 2018 Luxembourg Notes at par value in March 2018 and April 2018. In May 2018, pursuant to a previously issued notice of redemption, Intelsat Luxembourg redeemed \$46.0 million aggregate principal amount of the 2018 Luxembourg Notes at par value together with accrued and unpaid interest thereon.

#### *June 2018 Intelsat S.A. Senior Convertible Notes Offering and Common Shares Offering*

In June 2018, we completed an offering of 15,498,652 Intelsat S.A. common shares, nominal value \$0.01 per share (the “Common Shares”), at a public offering price of \$14.84 per common share, and we completed an offering of \$402.5 million aggregate principal amount of the 2025 Convertible Notes. These notes are guaranteed by a direct subsidiary of Intelsat Luxembourg, Intelsat Envision. The net proceeds from the Common Shares offering and 2025 Convertible Notes offering were used to repurchase approximately \$600 million aggregate principal amount of Intelsat Luxembourg’s 7.75% Senior Notes due 2021 (the “2021 Luxembourg Notes”) in privately negotiated transactions with individual holders in June 2018. In connection with the repurchase of the 2021 Luxembourg Notes, we recognized a net gain on early extinguishment of debt of \$22.1 million consisting of the difference between the carrying value of debt repurchased and the total cash amount paid (including related fees and expenses), together with a write-off of unamortized debt issuance costs. We used the remaining net proceeds of the Common Shares offering and 2025 Convertible Notes offering for further repurchases of 2021 Luxembourg Notes and for other general corporate purposes, including repurchases of other tranches of debt of Intelsat S.A.’s subsidiaries.

The 2025 Convertible Notes mature on June 15, 2025 unless earlier repurchased, converted or redeemed, as set forth in the indenture governing the 2025 Convertible Notes (the “2025 Indenture”). Holders may elect to convert their notes depending upon the trading price of our common shares and under other conditions set forth in the 2025 Indenture until December 15, 2024, and thereafter without regard to any conditions. The initial conversion rate is 55.0085 common shares per \$1,000 principal amount of notes, which is equivalent to an initial conversion price of approximately \$18.18 per common share, subject to customary adjustments, and will be increased upon the occurrence of specified events set forth in the 2025 Indenture. We may redeem the 2025 Convertible Notes at our option, on or after June 15, 2022, and prior to the forty-second scheduled trading day preceding the maturity date, in whole or in part, depending upon the trading price of our common shares as set forth in the optional redemption provisions in the 2025 Indenture or in the event of certain developments affecting taxation with respect to the 2025 Convertible Notes. Based on the closing price of our common shares of \$21.39 on December 31, 2018, the if-converted value of the 2025 Convertible Notes was greater than the aggregate principal amount. However, the 2025 Convertible Notes are not currently convertible based on the conditions set forth in the 2025 Indenture.

In accounting for the transaction, the 2025 Convertible Notes were separated into liability and equity components. The carrying amount of the liability component was calculated by measuring the fair value of a similar debt instrument that does not have an associated convertible feature. The carrying amount of the equity component is \$149.4 million, which is also recognized as a discount on the 2025 Convertible Notes and represents the value assigned to the conversion option which was

determined by deducting the fair value of the liability component from the par value of the 2025 Convertible Notes. The \$149.4 million equity component is included in additional paid-in capital on our consolidated balance sheet as of June 30, 2018 and will not be remeasured as long as it continues to meet the conditions for equity classification. The excess of the principal amount of the liability component over its carrying amount was recorded as a discount on the 2025 Convertible Notes and will be amortized to interest expense over the contractual term of the 2025 Convertible Notes at an effective interest rate of 13.0%.

We incurred debt issuance costs of \$12.7 million related to the 2025 Convertible Notes, which were allocated to the liability and equity components based on their relative values. Issuance costs attributable to the liability component were \$7.3 million and will be amortized to interest expense using the effective interest method over the contractual term of the 2025 Convertible Notes. Issuance costs attributable to the equity component were netted against the equity component in additional paid-in capital.

Interest expense for the year ended December 31, 2018 related to the 2025 Convertible Notes was as follows (in thousands):

	<b>Year Ended December 31, 2018</b>
Coupon interest	\$ 9,710
Amortization of discount and prepaid debt issuance costs	7,654
Total interest expense	<u>\$ 17,364</u>

#### *August 2018 Intelsat Connect Senior Notes Refinancing and Exchange of Intelsat Luxembourg Senior Notes*

In August 2018, Intelsat Connect completed an offering of \$1.25 billion aggregate principal amount of 9.5% Senior Notes due 2023 (the "2023 ICF Notes"). These notes are guaranteed by Intelsat Envision and Intelsat Luxembourg. Intelsat Connect used the net proceeds from the offering to repurchase or redeem all \$731.9 million outstanding aggregate principal amount of its 12.5% Senior Notes due 2022 (the "2022 ICF Notes"). The remaining net proceeds from the offering were used to repurchase approximately \$448.9 million of aggregate principal amount of Intelsat Jackson's 7.25% Senior Notes due 2020 (the "2020 Jackson Notes") and \$30.0 million aggregate principal amount of other unsecured notes of Intelsat Jackson. Also in August 2018, Intelsat Connect and Intelsat Envision completed debt exchanges receiving new notes issued by Intelsat Luxembourg, which mature in August 2026 and have an interest rate of 13.5% in exchange for \$1.58 billion aggregate principal amount of 2021 Luxembourg Notes that were previously held by Intelsat Connect and Intelsat Envision. In connection with these transactions, we recognized a loss on extinguishment of debt of \$188.2 million, consisting of the difference between the carrying value of the debt and the total cash amount paid (including related fees and expenses), together with a write-off of unamortized debt issuance costs and unamortized discount or premium, if applicable.

#### *September 2018 Intelsat Jackson Senior Notes Offering and Tender Offer*

In September 2018, Intelsat Jackson completed an offering of \$2.25 billion aggregate principal amount of 8.5% Senior Notes due 2024 (the "2024 Jackson Senior Unsecured Notes"). The notes are guaranteed by all of Intelsat Jackson's subsidiaries that guarantee its obligations under the Intelsat Jackson Secured Credit Agreement, as well as by certain of Intelsat Jackson's parent entities. Intelsat Jackson used the net proceeds from the offering to repurchase through a tender offer and redeem all remaining outstanding 2020 Jackson Notes. The remaining net proceeds from the 2024 Jackson Senior Unsecured Notes offering were used to repurchase and redeem \$195.3 million aggregate principal amount of Intelsat Jackson's 7.5% Senior Notes due 2021 (the "2021 Jackson Notes") as of September 30, 2018, \$246.0 million additional aggregate principal amount of 2021 Jackson Notes in October 2018, and to pay related fees and expenses. In connection with the repurchase and redemption, we recognized a loss on extinguishment of debt of \$15.9 million, consisting of the difference between the carrying value of the debt and the total cash amount paid (including related fees and expenses), together with a write-off of unamortized debt issuance costs and unamortized premium, if applicable.

### *October 2018 Intelsat Jackson Senior Notes Add-On Offering and Redemption of 2021 Jackson Notes*

In October 2018, Intelsat Jackson completed an add-on offering of \$700.0 million aggregate principal amount of its 2024 Jackson Senior Unsecured Notes. The net proceeds from the add-on offering, together with cash on hand, were used to repurchase and redeem all of the remaining approximately \$708.7 million aggregate principal amount of outstanding 2021 Jackson Notes in October 2018 that were not earlier repurchased or redeemed, and to pay related fees and expenses. In connection with the repurchase, we recognized a loss on extinguishment of debt of \$17.8 million, consisting of the difference between the carrying value of the debt and the total cash amount paid (including related fees and expenses), together with a write-off of unamortized debt issuance costs.

### **2017 Debt Transactions**

#### *January 2017 Intelsat Luxembourg Exchange Offer*

In January 2017, Intelsat Luxembourg completed a debt exchange (the “Second 2018 Luxembourg Exchange”), whereby it exchanged \$403.3 million aggregate principal amount of its 2018 Luxembourg Notes for an equal aggregate principal amount of newly issued unsecured 12.5% Senior Notes due 2024 (the “2024 Luxembourg Notes”). The Second 2018 Luxembourg Exchange consisted of \$377.6 million aggregate principal amount of 2018 Luxembourg Notes held by ICF as a result of a previous debt exchange, together with \$25 million aggregate principal amount of 2018 Luxembourg Notes repurchased by us in the fourth quarter of 2015. We consolidate ICF, the holder of the 2018 Luxembourg Notes exchanged in the Second 2018 Luxembourg Exchange.

#### *July 2017 Intelsat Jackson Senior Notes Refinancing*

On July 5, 2017, Intelsat Jackson completed an offering of \$1.5 billion aggregate principal amount of 9.75% Senior Notes due 2025 (the “2025 Jackson Notes”). These notes are guaranteed by all of Intelsat Jackson’s subsidiaries that guarantee its obligations under the Intelsat Jackson Secured Credit Agreement and senior notes, as well as by certain of Intelsat Jackson’s parent entities. Also on July 5, 2017, the net proceeds from the sale of the 2025 Jackson Notes were used, along with other available cash, to satisfy and discharge all \$1.5 billion aggregate principal amount of Intelsat Jackson’s 7.25% Senior Notes due 2019. In connection with the satisfaction and discharge, we recognized a loss on early extinguishment of debt of \$4.6 million, consisting of the difference between the carrying value of the debt redeemed and the total cash amount paid (including related fees and expenses), together with a write-off of unamortized debt issuance costs.

#### *November & December 2017 Amendments to Intelsat Jackson Senior Secured Credit Facility*

In November and December 2017, Intelsat Jackson entered into amendments of the Intelsat Jackson Secured Credit Agreement. See—Description of Indebtedness—*Intelsat Jackson—Intelsat Jackson Senior Secured Credit Agreement*, below.

### **Description of Indebtedness**

#### **(a) Intelsat S.A.**

##### *4 ½% Convertible Senior Notes due 2025*

In June 2018, we completed an offering of \$402.5 million aggregate principal amount of the 2025 Convertible Notes. See—2018 Debt and Other Capital Markets Transactions—*June 2018 Intelsat S.A. Senior Convertible Notes Offering and Common Shares Offering*, above.

#### **(b) Intelsat Luxembourg**

##### *7 ¾% Senior Notes due 2021*

Intelsat Luxembourg had \$421.2 million in aggregate principal amount of the 2021 Luxembourg Notes outstanding at December 31, 2018. The 2021 Luxembourg Notes bear interest at 7 ¾% annually and mature in June 2021. The 2021

Luxembourg Notes are guaranteed by Intelsat S.A., Intelsat Investment Holdings S.à r.l., Intelsat Holdings S.A. and Intelsat Investments S.A. (the “Parent Guarantors”).

Interest is payable on the 2021 Luxembourg Notes semi-annually on June 1 and December 1. Intelsat Luxembourg may redeem some or all of the notes at the applicable redemption prices set forth in the notes.

The 2021 Luxembourg Notes are senior unsecured obligations of Intelsat Luxembourg and rank equally with Intelsat Luxembourg’s other senior unsecured indebtedness.

*8 ¼% Senior Notes due 2023*

Intelsat Luxembourg had \$1.0 billion in aggregate principal amount of the 2023 Luxembourg Notes outstanding at December 31, 2018. \$111.7 million principal amount was held by Intelsat Jackson. The 2023 Luxembourg Notes bear interest at 8 ¼% annually and mature in June 2023. The 2023 Luxembourg Notes are guaranteed by the Parent Guarantors.

Interest is payable on the 2023 Luxembourg Notes semi-annually on June 1 and December 1. Intelsat Luxembourg may redeem some or all of the notes at the applicable redemption prices set forth in the notes.

The 2023 Luxembourg Notes are senior unsecured obligations of Intelsat Luxembourg and rank equally with Intelsat Luxembourg’s other senior unsecured indebtedness.

*12 ½% Senior Notes due 2024*

Intelsat Luxembourg had \$403.4 million in aggregate principal amount of the 2024 Luxembourg Notes outstanding at December 31, 2018. \$182.0 million principal amount was held by ICF, \$220.6 million was held by Intelsat Jackson and \$0.7 million was held by Intelsat Envision. The 2024 Luxembourg Notes bear interest at 12 ½% annually and mature in November 2024.

Interest is payable on the 2024 Luxembourg Notes semi-annually on May 15 and November 15.

The 2024 Luxembourg Notes are senior unsecured obligations of Intelsat Luxembourg and rank equally with Intelsat Luxembourg’s other senior unsecured indebtedness.

***(c) Intelsat Connect Finance***

*9 ½% Senior Notes due 2023*

ICF had \$1.3 billion in aggregate principal amount of 2023 ICF Notes outstanding at December 31, 2018. The 2023 ICF Notes bear interest at 9 ½% annually and mature in February 2023. These notes are guaranteed by Intelsat Envision and Intelsat Luxembourg.

Interest is payable on the 2023 ICF Notes semi-annually on June 15 and December 15. ICF may redeem the 2023 ICF Notes, in whole or in part, prior to August 15, 2020, at a price equal to 100% of the principal amount plus the applicable premium described in the notes. Thereafter, ICF may redeem some or all of the notes at the applicable redemption prices set forth in the notes.

***(d) Intelsat Jackson***

*9 ½% Senior Secured Notes due 2022*

Intelsat Jackson had \$490.0 million in aggregate principal amount of 2022 Jackson Secured Notes outstanding at December 31, 2018. The 2022 Jackson Secured Notes bear interest at 9 ½% annually and mature in September 2022. These notes are guaranteed by ICF and certain of Intelsat Jackson’s subsidiaries.

Interest is payable on the 2022 Jackson Secured Notes semi-annually on March 30 and September 30. Intelsat Jackson may redeem some or all of the notes at the applicable redemption prices set forth in the notes.

The 2022 Jackson Secured Notes are senior secured obligations of Intelsat Jackson.

*8% Senior Secured Notes due 2024*

Intelsat Jackson had \$1.3 billion in aggregate principal amount of 2024 Jackson Secured Notes outstanding at December 31, 2018. The 2024 Jackson Secured Notes bear interest at 8% annually and mature in February 2024. These notes are guaranteed by ICF and certain of Intelsat Jackson's subsidiaries.

Interest is payable on the 2024 Jackson Secured Notes semi-annually on February 15 and August 15. Intelsat Jackson may redeem some or all of the notes at the applicable redemption prices set forth in the notes.

The 2024 Jackson Secured Notes are senior secured obligations of Intelsat Jackson.

*5 ½% Senior Notes due 2023*

Intelsat Jackson had \$2.0 billion in aggregate principal amount of the 2023 Jackson Notes outstanding at December 31, 2018. The 2023 Jackson Notes bear interest at 5 ½% annually and mature in August 2023. These notes are guaranteed by the Parent Guarantors, Intelsat Luxembourg, ICF and certain of Intelsat Jackson's subsidiaries.

Interest is payable on the 2023 Jackson Notes semi-annually on February 1 and August 1. Intelsat Jackson may redeem some or all of the 2023 Jackson Notes at the applicable redemption prices set forth in the notes.

The 2023 Jackson Notes are senior unsecured obligations of Intelsat Jackson and rank equally with Intelsat Jackson's other senior unsecured indebtedness.

*9 ¾% Senior Notes due 2025*

Intelsat Jackson had \$1.5 billion in aggregate principal amount of the 2025 Jackson Notes outstanding at December 31, 2018. The 2025 Jackson Notes bear interest at 9 ¾% annually and mature in July 2025. These notes are guaranteed by the Parent Guarantors, Intelsat Luxembourg, ICF and certain of Intelsat Jackson's subsidiaries.

Interest is payable on the 2025 Jackson Notes semi-annually on January 15 and July 15. Intelsat Jackson may redeem some or all of the 2025 Jackson Notes at any time prior to July 15, 2021 at a price equal to 100% of the principal amount thereof plus the applicable premium described in the notes. Thereafter, Intelsat Jackson may redeem some or all of the notes at the applicable redemption prices set forth in the notes.

The 2025 Jackson Notes are senior unsecured obligations of Intelsat Jackson and rank equally with Intelsat Jackson's other senior unsecured indebtedness.

*8 ½% Senior Unsecured Notes due 2024*

Intelsat Jackson had \$3.0 billion in aggregate principal amount of the 2024 Jackson Senior Unsecured Notes outstanding at December 31, 2018. The 2024 Jackson Senior Unsecured Notes bear interest at 8 ½% annually and mature in October 2024. These notes are guaranteed by the Parent Guarantors, Intelsat Luxembourg, ICF and certain of Intelsat Jackson's subsidiaries.

Interest is payable on the 2024 Jackson Senior Unsecured Notes semi-annually on April 15 and October 15. Intelsat Jackson may redeem some or all of the 2024 Jackson Senior Unsecured Notes at any time prior to October 15, 2020 at a price equal to 100% of the principal amount thereof plus the applicable premium described in the notes. Thereafter, Intelsat Jackson may redeem some or all of the 2024 Jackson Senior Unsecured Notes at the applicable redemption prices set forth in the notes.

The 2024 Jackson Senior Unsecured Notes are senior unsecured obligations of Intelsat Jackson and rank equally with Intelsat Jackson's other senior unsecured indebtedness.

#### *Intelsat Jackson Senior Secured Credit Agreement*

On January 12, 2011, Intelsat Jackson entered into a secured credit agreement (the "Intelsat Jackson Secured Credit Agreement"), which included a \$3.25 billion term loan facility and a \$500.0 million revolving credit facility, and borrowed the full \$3.25 billion under the term loan facility. The term loan facility required regularly scheduled quarterly payments of principal equal to 0.25% of the original principal amount of the term loan beginning six months after January 12, 2011, with the remaining unpaid amount due and payable at maturity.

On October 3, 2012, Intelsat Jackson entered into an Amendment and Joinder Agreement (the "Jackson Credit Agreement Amendment"), which amended the Intelsat Jackson Secured Credit Agreement. As a result of the Jackson Credit Agreement Amendment, interest rates for borrowings under the term loan facility and the revolving credit facility were reduced. In April 2013, our corporate family rating was upgraded by Moody's, and as a result, the interest rate for the borrowing under the term loan facility and revolving credit facility were further reduced to LIBOR plus 3.00% or the Above Bank Rate ("ABR") plus 2.00%.

On November 27, 2013, Intelsat Jackson entered into a Second Amendment and Joinder Agreement (the "Second Jackson Credit Agreement Amendment"), which further amended the Intelsat Jackson Secured Credit Agreement. The Second Jackson Credit Agreement Amendment reduced interest rates for borrowings under the term loan facility and extended the maturity of the term loan facility. In addition, it reduced the interest rate applicable to \$450 million of the \$500 million total revolving credit facility and extended the maturity of such portion. As a result of the Second Jackson Credit Agreement Amendment, interest rates for borrowings under the term loan facility and the new tranche of the revolving credit facility were (i) LIBOR plus 2.75%, or (ii) the ABR plus 1.75%. The LIBOR and the ABR, plus applicable margins, related to the term loan facility and the new tranche of the revolving credit facility were determined as specified in the Intelsat Jackson Secured Credit Agreement, as amended by the Second Jackson Credit Agreement Amendment, and the LIBOR was not to be less than 1.00% per annum. The maturity date of the term loan facility was extended from April 2, 2018 to June 30, 2019 and the maturity of the new \$450 million tranche of the revolving credit facility was extended from January 12, 2016 to July 12, 2017. The interest rates and maturity date applicable to the \$50 million tranche of the revolving credit facility that was not amended did not change. The Second Jackson Credit Agreement Amendment further removed the requirement for regularly scheduled quarterly principal payments under the term loan facility.

In June 2017, Intelsat Jackson terminated all remaining commitments under its revolving credit facility.

On November 27, 2017, Intelsat Jackson entered into a Third Amendment and Joinder Agreement (the "Third Jackson Credit Agreement Amendment"), which further amended the Intelsat Jackson Secured Credit Agreement. The Third Jackson Credit Agreement Amendment extended the maturity date of \$2.0 billion of the existing floating rate B-2 Tranche of term loans (the "B-3 Tranche Term Loans"), to November 27, 2023, subject to springing maturity in the event that certain series of Intelsat Jackson's senior notes are not refinanced prior to the dates specified in the Third Jackson Credit Agreement Amendment. The B-3 Tranche Term Loans have an applicable interest rate margin of 3.75% for LIBOR loans and 2.75% for base rate loans (at Intelsat Jackson's election as applicable).

The B-3 Tranche Term Loans were subject to a prepayment premium of 1.00% of the principal amount for any voluntary prepayment of, or amendment or modification in respect of, the B-3 Tranche Term Loans prior to November 27, 2018 in connection with prepayments, amendments or modifications that have the effect of reducing the applicable interest rate margin on the B-3 Tranche Term Loans, subject to certain exceptions. The Third Jackson Credit Agreement Amendment also (i) added a provision requiring that, beginning with the fiscal year ending December 31, 2018, Intelsat Jackson to apply a certain percentage of its Excess Cash Flow (as defined in the Third Jackson Credit Agreement Amendment), if any, after operational needs for each fiscal year towards the repayment of outstanding term loans, subject to certain deductions, (ii) amended the most-favored nation provision with respect to the incurrence of certain indebtedness by Intelsat Jackson and

its restricted subsidiaries, and (iii) amended the covenant limiting the ability of Intelsat Jackson to make certain dividends, distributions and other restricted payments to its shareholders based on its leverage level at that time.

On December 12, 2017, Intelsat Jackson further amended the Intelsat Jackson Secured Credit Agreement by entering into a Fourth Amendment and Joinder Agreement (the “Fourth Jackson Credit Agreement Amendment”), which, among other things, (i) permitted Intelsat Jackson to establish one or more series of additional incremental term loan tranches if the proceeds thereof are used to refinance an existing tranche of term loans, and (ii) added a most-favored nation provision applicable to the B-3 Tranche Term Loans for further extensions of the existing floating rate B-2 Tranche Term Loans under certain circumstances.

On January 2, 2018, Intelsat Jackson entered into a Fifth Amendment and Joinder Agreement (the “Fifth Jackson Credit Agreement Amendment”), which further amended the Intelsat Jackson Secured Credit Agreement. The Fifth Jackson Credit Agreement Amendment refinanced the remaining \$1.095 billion B-2 Tranche Term Loans, through the creation of (i) a new incremental floating rate tranche of term loans with a principal amount of \$395.0 million (the “B-4 Tranche Term Loans”), and (ii) a new incremental fixed rate tranche of term loans with a principal amount of \$700.0 million (the “B-5 Tranche Term Loans”). The maturity date of both the B-4 Tranche Term Loans and the B-5 Tranche Term Loans is January 2, 2024, subject to springing maturity in the event that certain series of Intelsat Jackson’s senior notes are not refinanced or repaid prior to the dates specified in the Fifth Jackson Credit Agreement Amendment. The B-4 Tranche Term Loans have an applicable interest rate margin of 4.50% per annum for LIBOR loans and 3.50% per annum for base rate loans (at Intelsat Jackson’s election as applicable). We entered into interest rate cap contracts in December 2017 and amended them in May 2018 to mitigate the risk of interest rate increases on the B-4 Tranche Term Loans. The B-5 Tranche Term Loans have an interest rate of 6.625% per annum. The Fifth Jackson Credit Agreement Amendment also specified make-whole and prepayment premiums applicable to the B-4 Tranche Term Loans and the B-5 Tranche Term Loans at various dates.

Intelsat Jackson’s obligations under the Intelsat Jackson Secured Credit Agreement are guaranteed by ICF and certain of Intelsat Jackson’s subsidiaries. Intelsat Jackson’s obligations under the Intelsat Jackson Secured Credit Agreement are secured by a first priority security interest in substantially all of the assets of Intelsat Jackson and the guarantors party thereto, to the extent legally permissible and subject to certain agreed exceptions, and by a pledge of the equity interests of the subsidiary guarantors and the direct subsidiaries of each guarantor, subject to certain exceptions, including exceptions for equity interests in certain non-U.S. subsidiaries, existing contractual prohibitions and prohibitions under other legal requirements.

The Intelsat Jackson Secured Credit Agreement following a further amendment in November 2018 includes one financial covenant: Intelsat Jackson must maintain a consolidated secured debt to consolidated EBITDA ratio equal to or less than 3.50 to 1.00 at the end of each fiscal quarter as such financial measure is defined in the Intelsat Jackson Secured Credit Agreement. Intelsat Jackson was in compliance with this financial maintenance covenant ratio with a consolidated secured debt to consolidated EBITDA ratio of 2.94 to 1.00 as of December 31, 2018.

### **Note 13 Derivative Instruments and Hedging Activities**

#### *Undesignated Interest Rate Cap Contracts*

During 2017, we entered into interest rate cap contracts, and amended them in May 2018, to mitigate the risk of interest rate increases on the floating rate portion of our senior secured credit facilities with a notional value of \$2.4 billion. The fair value of the derivative included in “Other assets” on the consolidated balance sheet as of December 31, 2017 and 2018 was \$22.3 million and \$33.1 million, respectively.

#### *Preferred Stock Warrant*

During 2017, we were issued a warrant to purchase preferred shares of one of our investments. We concluded that the warrant is a free standing derivative in accordance with FASB ASC 815. The fair value of the derivative, included in “Other assets” on the consolidated balance sheet as of December 31, 2017 and 2018 was \$4.1 million.

The following table sets forth the fair value of our derivatives by category (in thousands):

Derivatives not designated as hedging instruments	Balance Sheet Location	December 31, 2017	December 31, 2018
Undesignated interest rate cap	Other assets	\$ 22,336	\$ 33,086
Preferred stock warrant	Other assets	4,100	4,100
Total derivatives		\$ 26,436	\$ 37,186

The following table sets forth the effect of the derivative instruments in our consolidated statements of operations (in thousands):

Derivatives not designated as hedging instruments	Presentation in Statement of Operations	Year Ended December 31, 2016	Year Ended December 31, 2017	Year Ended December 31, 2018
Undesignated interest rate cap	Included in interest expense, net	\$ —	\$ 1,006	\$ (14,435)
Preferred stock warrant	Included in other expense, net	—	—	—
Total loss (gain) on derivative financial instruments		\$ —	\$ 1,006	\$ (14,435)

#### Note 14 Income Taxes

In October 2016, the FASB issued ASU 2016-16, Income Taxes (Topic 740): Intra-Entity Transfers of Assets Other Than Inventory, which is intended to improve the accounting for the income tax consequences of intra-entity transfers of assets other than inventory. The amendments in ASU 2016-16 eliminate the current requirement to defer the recognition of current and deferred income taxes for an intra-entity asset transfer until the asset has been sold to an outside party. ASU 2016-16 is effective for interim and annual periods beginning after December 15, 2017 for public business entities, on a modified retrospective basis. Early adoption is permitted as of the beginning of an annual reporting period for which interim or annual financial statements have not been issued. We adopted the amendments in the first quarter of 2018 and this resulted in approximately a \$170 million benefit to accumulated deficit. The benefit relates to certain deferred intercompany gains/losses, mostly in connection with a series of intercompany transactions in 2011 and 2017 and related steps that reorganized the ownership of our assets among our subsidiaries.

On December 22, 2017, the U.S. Tax Cuts and Jobs Act (the “Act”) was signed into law. The Act includes a number of provisions, including the lowering of the U.S. corporate tax rate from 35 percent to 21 percent, effective January 1, 2018. The Act limits our U.S. interest expense deductions to approximately 30 percent of EBITDA through December 31, 2021 and approximately 30 percent of earnings before net interest and taxes thereafter. The Act also introduced a new minimum tax, the Base Erosion Anti-Abuse Tax (“BEAT”). We are treating the BEAT as a period cost.

The Company recognized the income tax effects of The Act in its 2017 financial statements in accordance with Staff Accounting Bulletin No. 118, which provides SEC staff guidance for the application of ASC Topic 740, Income Taxes, in the reporting period in which The Act was signed into law.

The Company measures deferred tax assets and liabilities using enacted tax rates that will apply in the years in which the temporary differences are expected to be recovered or paid. Accordingly, the company’s U.S. deferred tax assets and liabilities were remeasured to reflect the reduction in the U.S. corporate income tax rate from 35 percent to 21 percent, resulting in a \$28.0 million decrease in net deferred tax liabilities as of December 31, 2017.

On July 2, 2018, we implemented a series of internal transactions and related steps that reorganized the ownership of certain of our assets among our subsidiaries in order to enhance our ability to efficiently transact business (the “2018 Internal Reorganization”). The 2018 Internal Reorganization resulted in the majority of our operations being owned by a U.S.



partnership, with our wholly owned Luxembourg and U.S. subsidiaries as partners. Our tax expense recorded in the year ended December 31, 2018 was largely attributable to the 2018 Internal Reorganization, during which we recorded a deferred tax liability associated with the partners' outside basis in the partnership.

The following table summarizes our total income (loss) before income taxes (in thousands):

	Year Ended December 31, 2016	Year Ended December 31, 2017	Year Ended December 31, 2018
Domestic income (loss) before income taxes	\$ 938,156	\$ (18,149)	\$ (424,590)
Foreign income (loss) before income taxes	71,942	(85,535)	(41,031)
Total income (loss) before income taxes	<u>\$ 1,010,098</u>	<u>\$ (103,684)</u>	<u>\$ (465,621)</u>

The primary reason for the variance in domestic income before income tax was that our Luxembourg entities recorded a net gain on the extinguishment of debt in 2016. No comparable amount was recorded in 2017 or 2018.

The provision for (benefit from) income taxes consisted of the following (in thousands):

	Year Ended December 31, 2016	Year Ended December 31, 2017	Year Ended December 31, 2018
Current income tax provision (benefit)			
Domestic	\$ (35)	\$ (125)	\$ 792
Foreign	25,721	27,309	50,117
Total	<u>25,686</u>	<u>27,184</u>	<u>50,909</u>
Deferred income tax provision (benefit):			
Domestic	(80)	72	—
Foreign	(9,620)	43,874	79,160
Total	<u>(9,700)</u>	<u>43,946</u>	<u>79,160</u>
Total income tax provision:	<u>\$ 15,986</u>	<u>\$ 71,130</u>	<u>\$ 130,069</u>

The income tax provision (benefit) was different from the amount computed using the Luxembourg statutory income tax rate of 26.01% for the reasons set forth in the following table (in thousands):

	Year Ended December 31, 2016	Year Ended December 31, 2017	Year Ended December 31, 2018
Expected tax provision (benefit) at Luxembourg statutory income tax rate	\$ 295,150	\$ (28,078)	\$ (121,108)
Foreign income tax differential	51,787	66,242	2,216
Lux Financing Activities	(8,279)	30,232	51,250
Tax deductible impairment charges in Luxembourg subsidiaries	(1,280,759)	—	—
Change in tax rate	416,156	(28,250)	(684)
Changes in unrecognized tax benefits	(1,629)	(79)	(2,205)
Changes in valuation allowance	554,479	40,853	746,905
Tax effect of 2011 Intercompany Sale	(6,701)	(6,073)	1,655
Foreign tax credits	(5,480)	(3,107)	138
Research and development tax credits	(3,275)	(2,786)	—
2018 Internal Reorganization	—	—	(549,382)
Other	4,537	2,176	1,284
Total income tax provision	<u>\$ 15,986</u>	<u>\$ 71,130</u>	<u>\$ 130,069</u>

The majority of our operations are located in Luxembourg, the United States and the United Kingdom. Our Luxembourg companies that file tax returns as a consolidated group generated taxable income for the year ended December 31, 2018, largely due to the 2018 Internal Reorganization. The taxable income generated by our Luxembourg group was offset by available net operating loss carryforwards. Due to the inherent uncertainty associated with the realization of taxable income in the

foreseeable future, we recorded a full valuation allowance against the net operating losses generated in Luxembourg. The difference between tax expense reported in the consolidated statements of operations and tax computed at statutory rates is attributable to the valuation allowance on losses generated in Luxembourg, the provision for foreign taxes, which were principally in the United States and the United Kingdom, as well as withholding taxes on revenue earned in Brazil, and for 2018, the impacts of the 2018 Internal Reorganization.

The following table details the composition of the net deferred tax balances as of December 31, 2017 and 2018 (in thousands):

	As of December 31, 2017	As of December 31, 2018
Long-term deferred taxes, net	\$ (48,434)	\$ (82,488)
Other assets	14,583	20,969
Net deferred taxes	<u>\$ (33,851)</u>	<u>\$ (61,519)</u>

The components of the net deferred tax liability were as follows (in thousands):

	As of December 31, 2017	As of December 31, 2018
Deferred tax assets:		
Accruals and advances	\$ 17,169	\$ 6,001
Amortizable intangible assets	13,421	1,133,702
Non-Amortizable intangible assets	147,332	42,265
Performance incentives	7,289	—
Customer deposits	16,064	3,404
Bad debt reserve	2,033	1,350
Accrued retirement benefits	43,592	—
Disallowed interest expense carryforward	75,546	74,825
Net operating loss carryforward	3,840,759	2,964,634
Tax credits	11,335	12,235
Tax basis differences in investments and affiliates	—	78,950
Other	8,418	2,346
Total deferred tax assets	<u>4,182,958</u>	<u>4,319,712</u>
Deferred tax liabilities:		
Satellites and other property and equipment	(266,330)	(80,376)
Amortizable intangible assets	(366,777)	(8,948)
Non-amortizable intangible assets	(103,730)	(31,359)
Tax basis differences in investments and affiliates	(6,753)	(51,645)
Other	(16,875)	(5,654)
Total deferred tax liabilities	<u>(760,465)</u>	<u>(177,982)</u>
Valuation allowance	<u>(3,456,344)</u>	<u>(4,203,249)</u>
Total net deferred tax liabilities	<u>\$ (33,851)</u>	<u>\$ (61,519)</u>

As of December 31, 2017 and 2018, our consolidated balance sheets included a deferred tax asset in the amount of \$3.8 billion and \$3.0 billion, respectively, attributable to the future benefit from the utilization of certain net operating loss carryforwards. In addition, our balance sheets as of December 31, 2017 and December 31, 2018 included \$15.4 million and \$12.2 million of deferred tax assets, respectively, attributable to the future benefit from the utilization of tax credit carryforwards. As of December 31, 2018, we had tax-effected U.S. federal, state and other foreign tax net operating loss carryforwards of \$64.7 million expiring, for the most part, between 2023 and 2037, and tax effected Luxembourg net operating loss carryforwards of \$2.9 billion without expiration. These Luxembourg net operating loss carryforwards were caused primarily by our interest expense, satellite depreciation and amortization and impairment charges related to investments in subsidiaries, goodwill and other intangible assets. Our research and development credit of \$0.07 million may be carried forward to 2037. Our foreign tax credit of \$12.1 million may be carried forward to 2026.

Our valuation allowance as of December 31, 2017 and 2018 was \$3.5 billion and \$4.2 billion, respectively. Almost all of the valuation allowance relates to Luxembourg net operating loss carryforwards and deferred tax assets created by differences between the U.S. GAAP and the Luxembourg tax basis in our assets. Certain operations of our subsidiaries are controlled by various intercompany agreements which provide these subsidiaries with predictable operating profits. Other subsidiaries, principally Luxembourg and U.S. subsidiaries, are subject to the risks of our overall business conditions which make their earnings less predictable. Our valuation allowance as of December 31, 2018 also relates to certain deferred tax assets in our U.S. subsidiaries, including foreign tax credit carryforward and disallowed interest expense carryforward.

The following table summarizes the activity related to our unrecognized tax benefits (in thousands):

	<u>2017</u>	<u>2018</u>
Balance at January 1	\$ 36,167	\$ 31,380
Increases related to current year tax positions	2,193	928
Increases related to prior year tax positions	304	234
Decreases related to prior year tax positions	(3)	(81)
Expiration of statute of limitations for the assessment of taxes	(7,281)	(3,317)
Balance at December 31	<u>\$ 31,380</u>	<u>\$ 29,144</u>

As of December 31, 2017 and December 31, 2018 our gross unrecognized tax benefits were \$31.4 million and \$29.1 million, respectively (including interest and penalties), of which \$27.8 million and \$25.6 million, respectively, if recognized, would affect our effective tax rate. As of December 31, 2017 and 2018, we had recorded reserves for interest and penalties in the amount of \$0.6 million. We continue to recognize interest and, to the extent applicable, penalties with respect to the unrecognized tax benefits as income tax expense. Since December 31, 2018, the change in the balance of unrecognized tax benefits consisted of an increase of \$0.9 million related to current tax positions, an increase of \$0.1 million related to prior tax positions, and a decrease of \$3.3 million due to the expiration of statute of limitations for the assessment of taxes.

We operate in various taxable jurisdictions throughout the world and our tax returns are subject to audit and review from time to time. We consider Luxembourg, the United States, the United Kingdom and Brazil to be our significant tax jurisdictions. Our Luxembourg, U.S., United Kingdom and Brazilian subsidiaries are subject to income tax examination for periods after December 31, 2012. Within the next twelve months, we believe that there are no jurisdictions in which the outcome of unresolved tax issues or claims is likely to be material to our results of operations, financial position or cash flows.

Certain of our UK and U.S. subsidiaries have been in a dispute with the Indian tax administration over withholding taxes. This dispute stretches over many tax years, some as early as 2001. The assessments we have received for those years are in various stages of appeal, some in the Indian court system. So far, the Indian courts have ruled in our favor. We have been informed that certain lower court decisions are likely to be reviewed by the Indian Supreme Court in the near future. We believe it to be more likely than not that the Indian Supreme Court will rule in our favor. We do not expect even an unfavorable ruling to have any material effect on our results of operations, financial position or cash flows, because most of the disputed withholding taxes relate to customer contracts under which our customers indemnified us for such taxes.

On March 29, 2017, the UK Government gave formal notice of its intention to leave the European Union (“EU”). This notice started the two-year negotiation period to establish the withdrawal terms. Once the UK ultimately withdraws from the EU, existing tax reliefs and exemptions on intra-European transactions will likely cease to apply to transactions between UK entities and EU entities. In addition, transactions with non-EU countries, such as the U.S., may also be affected. As of December 31, 2018, all relevant tax laws and treaties remain unchanged and the tax consequences are unknown. Therefore, we have not recognized any impacts of the withdrawal in the income tax provision as of December 31, 2018. We will recognize any impacts to the tax provision when enacted changes in tax laws or treaties between the UK and the EU or individual EU member states occur, but no later than the date of the withdrawal.

On December 13, 2018, the Internal Revenue Service and the Department of the Treasury released proposed regulations with respect to the BEAT. The BEAT is a minimum tax established by the Act that excludes certain payments made by U.S. corporations or subsidiaries to foreign related parties from the determination of taxable income. The proposed regulations

clarify which taxpayers are subject to the BEAT and how the BEAT rules apply to certain payments and transactions. The proposed regulations, if adopted, would be effective for the Company for its 2018 tax year. The proposed regulations could result in additional payments and transactions of the Company being subject to the BEAT which could increase the Company's tax expense and cash taxes. It is unclear when the proposed regulations will be adopted, whether they will be adopted in their current form or whether they will be adopted at all. The Company is currently evaluating the impact that the proposed regulations could have on its future tax expense. The Company has not included any impacts from the proposed regulations in its tax provision as of and for the year ended December 31, 2018.

#### Note 15 Contractual Commitments

In the further development and operation of our commercial global communications satellite system, significant additional expenditures are anticipated. In connection with these and other expenditures, we have a significant amount of long-term debt, as described in "Note 12—Long-Term Debt." In addition to these debt and related interest obligations, we have expenditures represented by other contractual commitments. The additional expenditures as of December 31, 2018 and the expected year of payment are as follows (in thousands):

	Satellite Construction and Launch Obligations	Satellite Performance Incentive Obligations	Horizons-3 Satellite LLC Contribution Obligations (1)	Operating Leases	Sublease Rental Income	Customer and Vendor Contracts	Total
2019	\$ 273,875	\$ 59,783	\$ 4,500	\$ 20,065	\$ (826)	\$ 140,577	\$ 497,974
2020	216,615	50,021	11,700	18,730	(745)	37,492	333,813
2021	133,890	49,220	13,300	14,832	(535)	29,658	240,365
2022	11,842	38,503	15,700	13,979	(372)	26,510	106,162
2023	10,232	27,053	15,300	13,600	(78)	25,581	91,688
2024 and thereafter	47,915	131,136	43,600	80,216	(150)	41,505	344,222
Total contractual commitments	<u>\$ 694,369</u>	<u>\$ 355,716</u>	<u>\$ 104,100</u>	<u>\$ 161,422</u>	<u>\$ (2,706)</u>	<u>\$ 301,323</u>	<u>\$ 1,614,224</u>

(1) See Note 10(b)—Investments—Horizons-3 Satellite LLC.

#### (a) Satellite Construction and Launch Obligations

As of December 31, 2018, we had approximately \$694.4 million of expenditures remaining under our existing satellite construction and launch contracts. Satellite launch and in-orbit insurance contracts related to future satellites to be launched are cancelable up to thirty days prior to the satellite's launch. As of December 31, 2018, we did not have any non-cancelable commitments related to existing launch insurance or in-orbit insurance contracts for satellites to be launched.

The satellite construction contracts typically require that we make progress payments during the period of the satellites' construction. The satellite construction contracts contain provisions that allow us to terminate the contracts with or without cause. If terminated without cause, we would forfeit the progress payments and be subject to termination payments that escalate with the passage of time. If terminated for cause, we would be entitled to recover any payments we made under the contracts and certain liquidated damages as specified in the contracts.

#### (b) Satellite Performance Incentive Obligations

Satellite construction contracts also typically require that we make orbital incentive payments (plus interest as defined in each agreement with the satellite manufacturer) over the orbital life of the satellite. The incentive obligations may be subject to reduction or refund if the satellite fails to meet specific technical operating standards. As of December 31, 2018, we had \$355.7 million of satellite performance incentive obligations, including future interest payments.

**(c) Operating Leases**

We have commitments for operating leases primarily relating to equipment and office facilities, including our U.S. Administrative Headquarters in McLean, Virginia. As of December 31, 2018, the total obligation related to operating leases, net of sublease income on leased facilities and rental income, was \$158.7 million. Rental income and sublease income are included in other expense, net in the accompanying consolidated statements of operations.

Total rent expense for the years ended December 31, 2016, 2017 and 2018, was \$14.0 million, \$14.8 million and \$14.0 million, respectively.

**(d) Customer and Vendor Contracts**

We have contracts with certain customers that require us to provide equipment, services and other support during the term of the related contracts. We also have long-term contractual obligations with service providers primarily for the operation of certain of our satellites. As of December 31, 2018, we had commitments under these customer and vendor contracts which totaled approximately \$301.3 million related to the provision of equipment, services and other support.

**Note 16 Contingencies**

We are subject to litigation in the ordinary course of business. Management does not believe that the resolution of any pending proceedings would have a material adverse effect on our financial position or results of operations.

**Note 17 Business and Geographic Segment Information**

We operate in a single industry segment in which we provide satellite services to our communications customers around the world. Our revenues are disaggregated by billing region, service type and customer set. Revenue by region is based on the locations of customers to which services are billed. Our satellites are in geosynchronous orbit, and consequently are not attributable to any geographic location. Of our remaining assets, substantially all are located in the United States.

The following table disaggregates revenue by billing region (in thousands, except percentages):

	<b>Year Ended December 31, 2016</b>		<b>Year Ended December 31, 2017</b>		<b>Year Ended December 31, 2018</b>	
North America	\$ 1,077,886	49%	\$ 1,080,736	50%	\$ 1,112,774	51%
Europe	300,003	14%	272,039	13%	257,747	12%
Latin America and Caribbean	325,933	15%	304,379	14%	284,948	13%
Africa and Middle East	286,258	13%	292,505	14%	274,853	13%
Asia-Pacific	<u>197,967</u>	9%	<u>198,953</u>	9%	<u>230,868</u>	11%
Total	<u>\$ 2,188,047</u>	100%	<u>\$ 2,148,612</u>	100%	<u>\$ 2,161,190</u>	100%

Approximately 8%, 9% and 11% of our revenue was derived from our largest customer during each of the years ended December 31, 2016, 2017 and 2018, respectively. Our ten largest customers accounted for approximately 31%, 34% and 37% of our revenue for the years ended December 31, 2016, 2017 and 2018, respectively.

We earn revenue primarily by providing services to our customers using our satellite transponder capacity. Our customers generally obtain satellite capacity from us by placing an order pursuant to one of several master customer service agreements. On-network services are comprised primarily of services delivered on our owned network infrastructure, as well as commitments for third-party capacity, generally long-term in nature, that we integrate and market as part of our owned infrastructure. In the case of third-party services in support of government applications, the commitments for third-party capacity are shorter and matched to the government contracting period, and thus remain classified as off-network services. Off-network services can include transponder services and other satellite-based transmission services, such as mobile satellite services (“MSS”), which are sourced from other operators, often in frequencies not available on our network. Under the category Off-Network and Other Revenues, we also include revenues from consulting and other services.

The following table disaggregates revenue by type of service (in thousands, except percentages):

	<u>Year Ended</u> <u>December 31, 2016</u>		<u>Year Ended</u> <u>December 31, 2017</u>		<u>Year Ended</u> <u>December 31, 2018</u>	
<b>On-Network Revenues</b>						
Transponder services	\$ 1,561,108	72%	\$ 1,543,384	72%	\$ 1,570,278	73%
Managed services	414,758	19%	412,147	19%	393,264	18%
Channel	<u>9,134</u>	—%	<u>5,405</u>	—%	<u>4,250</u>	—%
Total on-network revenues	1,985,000	91%	1,960,936	91%	1,967,792	91%
<b>Off-Network and Other Revenues</b>						
Transponder, MSS and other off-network services	157,212	7%	141,845	7%	150,186	7%
Satellite-related services	<u>45,835</u>	2%	<u>45,831</u>	2%	<u>43,212</u>	2%
Total off-network and other revenues	<u>203,047</u>	9%	<u>187,676</u>	9%	<u>193,398</u>	9%
Total	<u>\$ 2,188,047</u>	100%	<u>\$ 2,148,612</u>	100%	<u>\$ 2,161,190</u>	100%

Our revenues for media, network services, government and satellite-related services were as follows: \$937.7 million, \$798.1 million, \$392.0 million, and \$33.4 million, respectively for the year ended December 31, 2018; \$910.1 million, \$851.6 million, \$352.6 million, and \$34.3 million, respectively for the year ended December 31, 2017; and \$868.1 million, \$900.3 million, \$387.1 million, and \$32.5 million, respectively for the year ended December 31, 2016.

## **Note 18 Related Party Transactions**

### ***(a) Shareholders' Agreements***

Certain shareholders of Intelsat Global S.A. entered into shareholders' agreements on February 4, 2008. The shareholders' agreements were assigned to Intelsat S.A. by amendments effective as of March 30, 2012 in connection with our initial public offering in April 2013, and then terminated in December 2018 and replaced by a new agreement. The shareholders agreement provides, among other things, specific rights to and limitations upon the holders of Intelsat S.A.'s share capital with respect to shares held by such holders.

### ***(b) Governance Agreement***

Prior to the consummation of the IPO, we entered into a governance agreement with our shareholder affiliated with BC Partners (the "BC Shareholder"), our shareholder affiliated with Silver Lake (the "Silver Lake Shareholder") and David McGlade, our Non-Executive Chairman. This agreement was terminated in December 2018 and replaced with a new agreement between the BC Shareholder and the Company, containing provisions relating to the composition of our board of directors and certain other matters.

### ***(c) Indemnification Agreements***

We have entered into agreements with our executive officers and directors to provide contractual indemnification in addition to the indemnification provided for in our articles of incorporation.

### ***(d) Horizons Holdings***

We have a 50% ownership interest in Horizons Holdings as a result of a joint venture with JSAT (see Note 10(a)—Investments—Horizons Holdings).

### ***(e) Horizons 3 Satellite LLC***

We have a 50% ownership interest in Horizons 3 as a result of a joint venture with JSAT (see Note 10(b)—Investments—Horizons-3 Satellite LLC).

### ***(f) Additional BC Shareholder Share Purchase in June 2018***

In connection with an offering of common shares by the Company completed in June 2018, the BC Shareholder purchased an additional 2,021,563 shares of Intelsat S.A. at the public offering price of \$14.84 per share for approximately \$30.0 million in the aggregate.

**Note 19 Quarterly Results of Operations (in thousands, unaudited)**

	Quarter Ended			
	March 31	June 30	September 30	December 31
<b>2017</b>				
Revenue (1)	\$ 538,484	\$ 533,229	\$ 538,759	\$ 538,140
Income from operations (1)	216,727 (3)	228,245 (3)	233,165 (3)	232,944 (3)
Net loss	(33,642) (4)	(22,800)	(29,416) (4)	(88,956)
Net loss attributable to Intelsat S.A.	(34,570) (4)	(23,795)	(30,412) (4)	(89,951)
Net loss per share attributable to Intelsat S.A.:				
Basic (2)	\$ (0.29)	\$ (0.20)	\$ (0.26)	\$ (0.75)
Diluted (2)	(0.29)	(0.20)	(0.26)	(0.75)
	Quarter Ended			
	March 31	June 30	September 30	December 31
<b>2018</b>				
Revenue (1)	\$ 543,782	\$ 537,714	\$ 536,922	\$ 542,771
Income from operations (1)	234,472	237,755	237,269	232,374
Net loss	(65,849)	(45,840) (5)	(373,642) (5)	(110,359) (5)
Net loss attributable to Intelsat S.A.	(66,801)	(46,828) (5)	(374,631) (5)	(111,346) (5)
Net loss per share attributable to Intelsat S.A.:				
Basic (2)	\$ (0.56)	\$ (0.38)	\$ (2.74)	\$ (0.81)
Diluted (2)	(0.56)	(0.38)	(2.74)	(0.81)

- (1) Our quarterly revenue and operating income (loss) are generally not impacted by seasonality, as customer contracts for satellite utilization are generally long-term. Revenue increases are attributable to ASC 606 adjustments. Excluding the impact of ASC 606 adjustments, revenue declines were primarily due to a decrease in revenue from our network services customers, mainly due to declines for enterprise services, wireless infrastructure and point-to-point trunking applications, as well as a decrease in revenue from media customers. These declines were partially offset by an increase in revenue from our network services customers for maritime and mobility applications and an increase in revenue from off-network and third party applications.
- (2) Basic and diluted earnings per share are computed independently for each of the quarters presented. Therefore, the sum of quarterly basic and diluted per share information may not equal annual basic and diluted earnings per share.
- (3) As a result of our adoption of ASU 2017-07 on January 1, 2018, the Company reclassified a net credit for pension and postretirement benefits from operating expenses to other income for the quarters within 2017 to conform to the current year quarters' presentation. See Note 7—Retirement Plan and Other Retiree Benefits for additional details on the impact of the adoption of ASU 2017-07.
- (4) The quarter ended March 31, 2017 includes a \$0.5 million gain on early extinguishment of debt related to the Second 2018 Luxembourg Exchange described above. The quarter ended September 30, 2017 includes a \$4.6 million loss on early extinguishment of debt related to the July 2017 Intelsat Jackson Senior Notes Refinancing described above.
- (5) The quarter ended June 30, 2018 includes a \$22.1 million gain on early extinguishment of debt related to the repurchase of the 2021 Luxembourg Notes. The quarter ended September 30, 2018 includes a \$204.1 million loss on early extinguishment of debt related to the 2023 ICF Notes and the 2024 Jackson Senior Unsecured Notes. The quarter ended December 31, 2018 includes a \$17.8 million loss on early extinguishment of debt related to the repurchase of the 2024 Jackson Senior Unsecured Notes and the redemption of 2021 Jackson Notes (see Note 12—Long-Term Debt).



## Note 20 Reconciliation with IFRS

The reconciliation of shareholders' equity under U.S. GAAP to shareholders' equity under IFRS as of December 31 was as follows:

	<b>2017</b>	<b>2018</b>
	<u>USD Thousands</u>	<u>USD Thousands</u>
Shareholders' equity under U.S. GAAP	\$ (3,807,870)	\$ (4,097,005)
Reversal of asset impairment	104,099	104,099
Income tax provision	(16,490)	(13,912)
Depreciation of impaired assets	(74,348)	(84,261)
Pension accumulated other comprehensive income adjustment	11,140	(22,960)
Pension related expenses	(11,140)	22,960
Shareholders' equity under IFRS	<u>\$ (3,794,609)</u>	<u>\$ (4,091,079)</u>

The reconciliation of the result for the period ended December 31 under U.S. GAAP to the result for the same period under IFRS as of December 31 was as follows:

	<b>2017</b>	<b>2018</b>
	<u>USD Thousands</u>	<u>USD Thousands</u>
Result for the period under U.S. GAAP	\$ (178,728)	\$ (599,605)
Income tax provision	2,684	2,578
Depreciation of impaired assets	(9,913)	(9,913)
Pension related expenses	(11,140)	22,960
Share-based compensation	4,923	(1,083)
Result for the period under IFRS	<u>\$ (192,174)</u>	<u>\$ (585,063)</u>

### *Impairment of long-lived assets (IAS 36)*

Under IFRS, an impairment loss recognized in prior periods for an asset other than goodwill is reversed if, and only if, there has been a change in the estimates used to determine the asset's recoverable amount since the last impairment loss was recognized. In 2010, the Company's G-15 satellite was initially impaired. As of December 31, 2010, the Company recovered control of the satellite and it was determined that the carrying amount of the asset, as described in International Accounting Standard 36.117, was fully recovered, and therefore the Company increased its recoverable amount by the full amount of the initial impairment. Under U.S. GAAP, an impairment loss may not be reversed if the fair value of the impaired asset or asset group increases subsequently.

### *Pension related expenses (IAS 19R)*

In 2011, the International Accounting Standards Board issued revisions to the accounting standard for retirement plans (IAS 19R), bringing several key differences. Except for gains and losses recognized under other comprehensive income instead of Profit & Loss as it happens in U.S. GAAP, there is no more material difference.

### *Share-based compensation (IFRS 2)*

IFRS 2 (*Share-based compensation*) requires the Company to measure share-based compensation related to share purchase options and RSUs at the fair value of the option or RSU on the date of the grant and recognize the fair value as expense over the vesting period of the award. IFRS 2 also requires that an award with graded vesting be considered as separate grants with different vesting dates and fair values. Under U.S. GAAP, awards with graded vesting are recognized as expense on a straight-line basis over the entire vesting period.

**Note 21 Auditor fees**

Fees billed to the Company and its subsidiaries by KPMG Luxembourg, Société coopérative, and other member firms of the KPMG network during the year ended December 31 are as follows:

(in USD Thousands, VAT excluded)

	<u>2017</u>	<u>2018</u>
Audit fees annual accounts and consolidated accounts	\$ 3,568	\$ 4,929
Audit related fees	-	-
Tax fees	-	11
Other fees	150	150

Such fees are presented under Selling, General and administrative expenses in the Consolidated Statements of operations.

**Note 22 Subsequent events**

In April 2019, the Intelsat 29e propulsion system experienced damage that caused a leak of the propellant on board the satellite, resulting in a service disruption to customers. Subsequently, the satellite experienced a second anomaly that caused an eventual loss of communications with the satellite that resulted in a total loss of the satellite. A failure review board has been convened with the satellite's manufacturer, Boeing Satellite Systems, Inc., to complete a comprehensive analysis of the cause of the anomaly. While the review of the full financial impact of the satellite failure is still underway, we expect to record an impairment charge in the second quarter of 2019 of approximately \$400 million. The second quarter charge may include other financial impacts. We are actively migrating customers from Intelsat 29e to other satellites in our network, as well as third-party services, which may result in the incurrence of additional operating expenses during the remainder of 2019.

## Note 23 List of consolidated subsidiaries

The list of our subsidiaries consolidated in the accounts of Intelsat S.A. as of December 31, 2018 is set forth below. Unless otherwise stated, the subsidiaries listed below are directly or indirectly owned by Intelsat S.A. at 100%.

1. Intelsat Investment Holdings S.à r.l., a company organized under the laws of Luxembourg
2. Intelsat Holdings S.A., a company organized under the laws of Luxembourg.
3. Intelsat Investments S.A., a company organized under the laws of Luxembourg.
4. Intelsat (Luxembourg) S.A., a company organized under the laws of Luxembourg.
5. Intelsat Envision Holdings LLC, a limited liability company organized under the laws of Delaware.
6. Intelsat Connect Finance S.A., a company organized under the laws of Luxembourg.
7. Intelsat Jackson Holdings S.A., a company organized under the laws of Luxembourg.
8. Intelsat Align S.a.r.l., a company organized under the laws of Luxembourg.
9. Intelsat Subsidiary (Gibraltar) Limited, a company organized under the laws of Gibraltar.
10. Intelsat Ireland Operations Unlimited Company, a company organized under the laws of Ireland.
11. Intelsat Finance Bermuda Ltd., a company organized under the laws of Bermuda.
12. Intelsat Genesis Inc., a corporation organized under the laws of Delaware.
13. Intelsat Genesis GP LLC, a limited liability company organized under the laws of Delaware.
14. PanAmSat Europe Corporation, a corporation organized under the laws of Delaware.
15. PanAmSat Satellite Europe Limited, a company organized under the laws of England and Wales.
16. Europe\*Star Gesellschaft Fur Satellitenkommunikation GmbH, owned 51%, a company organized under the laws of Germany.
17. Intelsat Alliance LP, a limited partnership organized under the laws of Delaware.
18. Intelsat US LLC, a limited liability company organized under the laws of Delaware.
19. Intelsat Ventures S.à r.l., a company organized under the laws of Luxembourg.
20. Intelsat Cosmos OOO, a company organized under the laws of Russia.
21. Intelsat Singapore Pte. Ltd., a company organized under the laws of Singapore.
22. Intelsat Africa (Pty.) Ltd., a company organized under the laws of South Africa.
23. Intelsat Kommunikations GmbH, a company organized under the laws of Germany.
24. Intelsat Global Sales & Marketing Ltd., a company organized under the laws of England and Wales.
25. Intelsat UK Financial Services Ltd., a company organized under the laws of England and Wales.
26. Intelsat France SAS, a company organized under the laws of France.
27. Intelsat Satellite Communications Limited, a company organized under the laws of Kenya.
28. Intelsat Holdings LLC, a company organized under the laws of Delaware.
29. Intelsat Satellite LLC, a limited liability company organized under the laws of Delaware.
30. Intelsat License Holdings LLC, a limited liability company organized under the laws of Delaware.
31. Intelsat License LLC, a limited liability company organized under the laws of Delaware.
32. Intelsat Brasil Ltda., a company organized under the laws of Brazil.
33. Intelsat Brasil Servicos de Telecomunicacao Ltda., a company organized under the laws of Brazil.
34. Intelsat Clearinghouse LLC, a limited liability company organized under the laws of Delaware.
35. PanAmSat International Holdings LLC, a limited liability company organized under the laws of Delaware.
36. Intelsat International Systems LLC, a limited liability company organized under the laws of Delaware.
37. Mountainside Teleport LLC, a limited liability company organized under the laws of Delaware.
38. Intelsat General Communications LLC, a limited liability company organized under the laws of Delaware.
39. Intelsat Horizons-3 LLC, a limited liability company organized under the laws of Delaware.
40. Horizons-3 License LLC, a limited liability company organized under the laws of Delaware.
41. Intelsat Canada ULC, a company organized under the laws of British Columbia.
42. Horizons Satellite Holdings LLC, owned 50%, a limited liability company organized under the laws of Delaware.
43. Horizons-1 Satellite LLC, owned 50%, a limited liability company organized under the laws of Delaware.
44. Horizons-2 Satellite LLC, owned 50%, a limited liability company organized under the laws of Delaware.
45. PanAmSat Sistemas de Comunicacao DTH do Brasil Ltda., owned 99.9%, a company organized under the laws of Brazil.

46. Intelsat Asia Carrier Services, LLC, a limited liability company organized under the laws of Delaware.
47. PanAmSat International Sales, LLC, a limited liability company organized under the laws of Delaware.
48. WP Com S de RL de CV, a company organized under the laws of Mexico.
49. PanAmSat de Mexico S de RL de CV, a company organized under the laws of Mexico.
50. Intelsat International Employment LLC, a limited liability company organized under the laws of Delaware.
51. Southern Satellite LLC, a limited liability company organized under the laws of Delaware.
52. Intelsat Asia Pty. Ltd., a company organized under the laws of Australia.
53. PanAmSat India LLC, a limited liability company organized under the laws of Delaware.
54. PanAmSat India Marketing, L.L.C., a limited liability company organized under the laws of Delaware.
55. Intelsat India Private Limited, a company organized under the laws of India.
56. Intelsat Asia (Hong Kong) Limited, a company organized under the laws of Hong Kong.
57. Intelsat Service and Equipment LLC, a limited liability company organized under the laws of Delaware.
58. Southern Satellite License LLC, a limited liability company organized under the laws of Delaware.