Annual report

2016

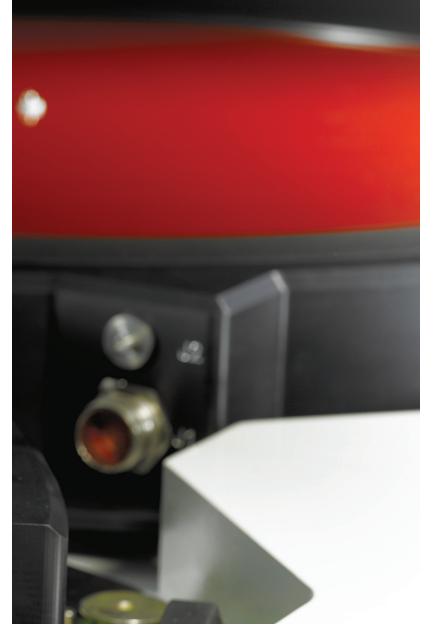




2016 marked the commercial debut of Gogo® 2Ku, our proprietary global satellite solution

2Ku starts the era of bandwidth abundance, transforming the passenger experience, connecting everyone on the plane, and enabling airlines to realize the benefits of the connected aircraft.

This next generation and proprietary global satellite solution leads the industry based on its cost, coverage, capacity, and reliability performance metrics. More than a dozen of the world's leading airlines have selected the solution, adding more than 1,500 aircraft to our 2Ku awards. We are thrilled





to offer this next generation in-flight connectivity technology to a global aviation market that is largely untapped outside of North America.

Gogo has developed industry-leading installation capabilities built on our decade long experience installing or materially upgrading hardware on thousands of commercial aircraft. As we ramp up our installation capabilities, we are focused on shortening the installation time and establishing

global operations capabilities to reduce the time an aircraft is out of service. In addition, we are making strong progress to achieve installations at OEMs such as Airbus, Boeing, and Bombardier. This means that the aircraft manufacturers will equip aircraft with our 2Ku connectivity system before delivery to an airline, simplifying the process for our partners.

# Invest in network technologies

# Gogo continues to disrupt and bring best-in-class connectivity technologies to aviation

Gogo uniquely specializes in designing and developing in-flight connectivity solutions for commercial and business aircraft. In the past 25 years, Gogo introduced nine network technologies – six of which are proprietary to Gogo – that have brought more bandwidth and coverage to aviation.

Our industry-leading technologies disrupt the market, and we continue to make them better. Within a year of 2Ku's commercial launch, we will increase its speeds from 25 Mbps to 100 Mbps and are working to push this higher. One of the key features of 2Ku is that its open architecture

platform enables us to obtain bandwidth from both current and future satellite constellations without the need for antenna swaps or other invasive changes to an aircraft. As a result, 2Ku will be able to seamlessly take advantage of future satellite innovations to meet the growing bandwidth consumption needs of our aviation partners and their passengers.

In September of 2016, we announced plans to launch our next generation air-to-ground (ATG) solution, increasing network speeds ten-fold to 100 Mbps. This cost-effective enhancement leverages our existing



investments in ground infrastructure and offers all of ATG's core benefits including low latency, low cost, and overnight installation. Next generation ATG, expected to launch in 2018, will bring unrivaled performance to larger business aircraft in North America and regional commercial jets as well.

As our next generation global and regional network solutions hit the market, we are already looking ahead to the next wave of innovations. Our aviation partners can rest assured that Gogo is hard at work to bring them not only more bandwidth, but also the best network solutions to keep them at the forefront of in-flight connectivity.

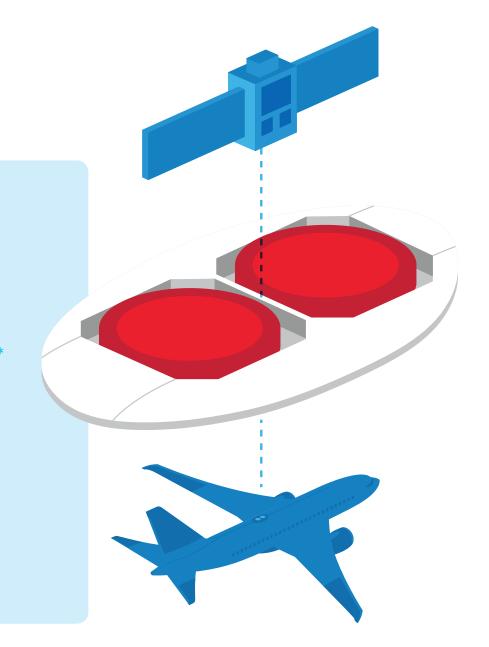
1,000 2Ku aircraft awards in 2016\*

1,500 Total 2Ku aircraft awards\*

3,000 commercial aircraft online\*

4,200 BA broadband aircraft online\*

\*Approximations as of 12/31/2016.





# Expand footprint

## New deals expand our reach and bolster our position in the global aviation industry

We are committed to providing the best aircraft connectivity products and services to the global aviation industry. As the leading global provider of in-flight broadband connectivity, we continue to invest in operations and ongoing research and development. Today, nearly 3,000 commercial aircraft and 4,200 business aircraft operate on our networks across the globe with operations on five continents.

In 2017, we plan to commence 2Ku installations on numerous international partners, including Air Canada, Air France-KLM, British Airways, and Iberia. As we scale our global operations, we will also continue to focus on winning more aircraft around the world. With nearly 10,000 commercial aircraft today without connectivity and new aircraft deliveries every year, we are excited about the opportunity to grow our business.

In business aviation, we continued our success during the year with another 700 ATG installations. With less than 25% of the 20,000 business aircraft in North America connected today, we have a great opportunity to grow our aircraft online even further for many years to come.



# Dear shareholders

2016 was transformational for Gogo and a year that will have a long-lasting impact on in-flight connectivity

During the year, we commercially launched Gogo 2Ku, our proprietary global satellite solution, on nearly 100 aircraft and announced plans to deploy our next generation ATG network.

These accomplishments are at the core of our mission to provide the best connectivity products and services to our aviation partners. They also signal that Gogo is moving from a period of significant bandwidth constraint to an era of bandwidth abundance. More bandwidth is the key to better experiences for our airline partners and their passengers and is fundamental to our continued revenue growth and profitability. And with more than 1,500 commercial aircraft awarded for 2Ku installation, we are off to a great start.

At the end of 2016, we had nearly 3,000 global commercial aircraft and 4,200 business aircraft flying with our network solutions. In 2017, we will be focused on installing 2Ku on approximately 450 to 550 commercial aircraft, which will significantly improve the passenger experience for our North American airline partners and launch connectivity service for our new international airline partners. We will also install hundreds of business jets with our ATG broadband service.

Gogo's industry leadership position is a testament to our more than 1,000 employees. We made major strides in advancing aviation in 2016. We also reported record financial results with revenue of \$597 million, up 19% from the prior year, and adjusted EBITDA of \$67 million, up 83% from the prior year. I am grateful for our employees' continued hard work as we move Gogo and the industry forward.

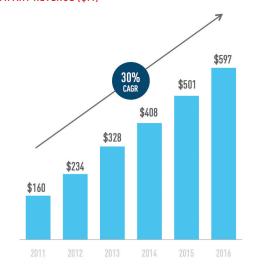
# Entering the era of bandwidth abundance

Gogo 2Ku enables us to transform the passenger experience by offering streaming-class service.

Bandwidth abundance means everyone on the plane will be able to stay connected and our airline partners will be able to use connectivity for their own operational needs. More bandwidth on the aircraft will result in both a better passenger experience and rapid average revenue per aircraft (ARPA) growth. That is why we are accelerating 2Ku installations.

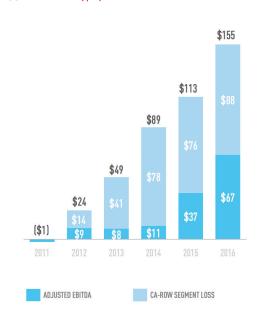
2Ku's industry-leading performance is already on display and has been demonstrated on nearly forty thousand flights, as far north as Alaska and as far south as the tip of South America. In 2016, we were awarded more than 1,000 aircraft by several of the world's leading airlines including Air Canada, Air France, American, British Airways, Delta, and KLM.

### **COMPANY REVENUE (\$M)**

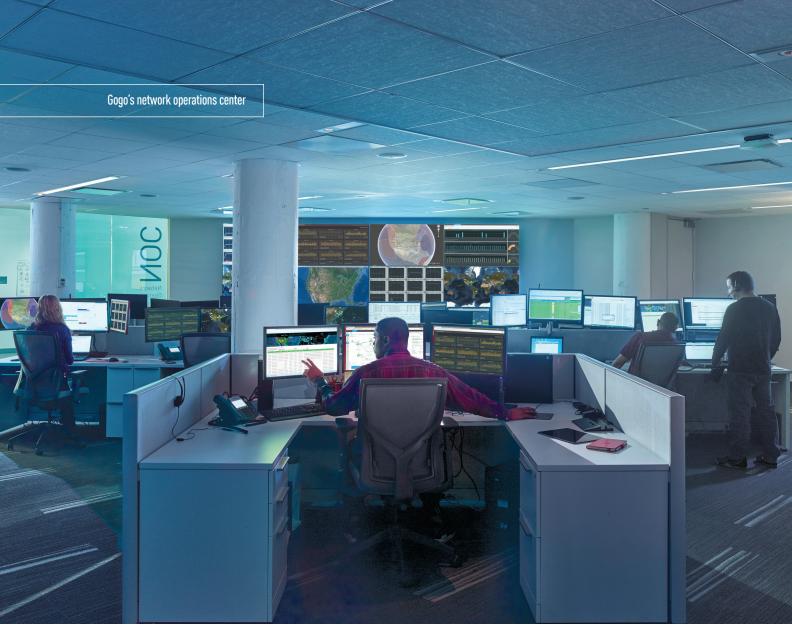


Note: Minor differences exist due to rounding

### ADJUSTED EBITDA (\$M)\*



<sup>\*</sup>A reconciliation of Adjusted EBITDA to net income for 2011–2016 can be found in the back of this annual report.



We will capitalize on this momentum in 2017 by focusing on the large opportunity that exists outside of North America, where nearly 10,000 commercial aircraft are not yet connected.

While we continue to build our 2Ku awards, we are also driving more rapid deployment of the technology. We are now able to install 2Ku in three days – an industry best for satellite technology installation – and will continue to focus on reducing installation times in order to lower costs and reduce the time aircraft are out of service. With growing capabilities to certify and install aircraft in the aftermarket as well as at the factory,

we will fully embed this industry leading technology in the aviation ecosystem for many years to come, making it easy for our airline partners to select 2Ku.

We built 2Ku with a simple premise – to provide the best cost, coverage, capacity, and reliability to our aviation partners around the globe. And in order to future-proof the connectivity technology decision of our airline partners, we created 2Ku with an open architecture which enables us to take advantage of satellite industry innovations resulting in more bandwidth at a lower cost in the future. Our first 2Ku installs in 2016 enabled speeds in excess of 25 Mbps to the aircraft. In 2017, that same 2Ku is expected to

deliver speeds in excess of 100 Mbps to the aircraft, driven by software upgrades, the introduction of our new proprietary modem, and the availability of high-throughput satellites.

### **Driving innovation**

While 2Ku is transformative for our industry, our innovation does not stop there. In 2016, we announced the development of a next generation ATG technology that we expect to launch in 2018 and that will increase speeds on our ATG network to 100 Mbps.

Our ATG network spans the continental United States and Canada and serves roughly 7,000 aircraft today across commercial and business aviation. To meet growing bandwidth demands, we continue to innovate on our original engineering marvel. We launched our ATG service in 2008 with a 3 Mbps solution, increased the speed to 10 Mbps in 2012 and will increase the current speed ten-fold when we launch the next generation ATG, providing abundant capacity to aircraft flying on that network for many years to come.

Next generation ATG will offer many core benefits, including low latency, low cost, and overnight installations, making it a great solution for smaller aircraft. This proprietary offering will combine our exclusive licensed spectrum with unlicensed spectrum in the 2.4GHz band to provide an industry leading, streaming-class experience and will target the business aviation market as well as the commercial aviation regional jet market in North America.

### Looking ahead

With innovative network technologies, increasing global operating capabilities, and customizable aviation-centric platforms and services, Gogo is well positioned to continue to deliver increasing value to the global aviation industry. We are set to drive revenue, profitability, and free cash flow growth in the years ahead.

To all of my Gogo colleagues, I want to congratulate you on our many accomplishments in 2016. I'd also like to thank our airline partners and business aviation customers for their business and our shareholders for their continued support of Gogo. Our momentum is strong. Our technology platforms are robust, and as we scale our business globally, we are building a great business that will generate significant value for our customers and shareholders.

Sincerely,

Michael Small

Mulitedal

# **UNITED STATES** SECURITIES AND EXCHANGE COMMISSION Washington, D.C. 20549

## **FORM 10-K**

(Mark One):  ANNUAL REPORT PURSUANT TO SECTION 13 OR 1934.	15(d) OF THE SECURITIES EXCHANGE ACT OF
For the fiscal year ended OR	·
☐ TRANSITION REPORT PURSUANT TO SECTION 13 OF 1934.	
For the transition period from  Commission File Nu	
gog	
Gogo	
(Exact name of registrant as	s specified in its charter)
Delaware (State or other jurisdiction of Incorporation or Organization)	27-1650905 (I.R.S. Employer Identification No.)
Chicago, II (Address of principal Telephone Number (Registrant's telephone num	executive offices) (312) 517-5000
Indicate by check mark if the registrant is a well-known seasoned i Act. Yes ☐ No ☒	ssuer, as defined in Rule 405 of the Securities
Indicate by check mark if the registrant is not required to file report Act. Yes ☐ No ☒	ts pursuant to Section 13 or Section 15(d) of the
Indicate by check mark whether the registrant (1) has filed all repo Exchange Act of 1934 during the preceding 12 months (or for such shor (2) has been subject to such filing requirements for the past 90 days.	ter period that the registrant was required to file such reports), and
Indicate by check mark whether the registrant has submitted electron Interactive Data File required to be submitted and posted pursuant to Rupreceding 12 months (or for such shorter period that the registrant was recommended).	ale 405 of Regulation S-T (§232.405 of this chapter) during the
Indicate by check mark if disclosure of delinquent filers pursuant to contained herein, and will not be contained, to the best of registrant's kr incorporated by reference in Part III of this Form 10-K or any amendment	nowledge, in definitive proxy or information statements
Indicate by check mark whether the registrant is a large accelerated reporting company. See the definitions of "large accelerated filer," "acc the Exchange Act.	
Large accelerated filer	Accelerated filer
Non-accelerated filer	Smaller reporting company
Indicate by check mark whether the registrant is a shell company (a	as defined in Rule 12b-2 of the Exchange Act). Yes $\square$ No $\boxtimes$
The aggregate market value of the voting and non-voting stock helbusiness day of the registrant's most recently completed second fiscal q such date on the NASDAQ Global Select Market.	uarter, was \$487,690,195 based upon the closing price reported for
As of February 21, 2017, 86,296,105 shares of \$0.0001 par value c	common stock were outstanding.

### **Documents Incorporated By Reference**

Portions of the registrant's definitive Proxy Statement for its Annual Meeting of Stockholders scheduled to be held June 7, 2017 are incorporated by reference into Part III of this Form 10-K. Such proxy statement will be filed with the Securities and Exchange Commission within 120 days of the registrant's fiscal year ended December 31, 2016.

### Gogo Inc.

### INDEX

		Page
Part I.		
Item 1.	Business	2
Item 1A.	Risk Factors	19
Item 1B.	Unresolved Staff Comments	53
Item 2.	Properties	53
Item 3.	Legal Proceedings	53
Item 4.	Mine Safety Disclosures	53
Part II.		
Item 5.	Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of	
	Equity Securities	54
Item 6.	Selected Financial Data	56
Item 7.	Management's Discussion and Analysis of Financial Condition and Results of Operations	58
Item 7A.	Quantitative and Qualitative Disclosures About Market Risk	91
Item 8.	Financial Statements and Supplementary Data	93
Item 9.	Changes in and Disagreements With Accountants on Accounting and Financial Disclosure	133
Item 9A.	Controls and Procedures	133
Item 9B.	Other Information	134
Part III.		
Item 10.	Directors, Executive Officers and Corporate Governance	136
Item 11.	Executive Compensation	136
Item 12.	Security Ownership of Certain Beneficial Owners and Management and Related Stockholder	
	Matters	136
Item 13.	Certain Relationships and Related Transactions, and Director Independence	136
Item 14.	Principal Accounting Fees and Services	136
Part IV.		
Item 15.	Exhibits, Financial Statement Schedules	137

### INTRODUCTORY NOTE

Unless the context otherwise indicates or requires, as used in this Annual Report on Form 10-K for the fiscal year ended December 31, 2016 references to: (i) "we," "us," "our," "Gogo," or the "Company" refer to Gogo Inc. and its directly and indirectly owned subsidiaries as a combined entity, except where otherwise stated or where it is clear that the term means only Gogo Inc. exclusive of its subsidiaries; (ii) "CA," "CA business" or "commercial aviation" refers to our Commercial Aviation North American, or CA-NA, segment and our Commercial Aviation Rest of World, or CA-ROW, segment, taken as a whole and (iii) "fiscal," when used in reference to any twelve-month period ended December 31, refers to our fiscal year ended December 31. Unless otherwise indicated, information contained in this Annual Report is as of December 31, 2016. We have made rounding adjustments to reach some of the figures included in this Annual Report and, unless otherwise indicated, percentages presented in this Annual Report are approximate.

### **Cautionary Note Regarding Forward-Looking Statements**

Certain statements in this report may constitute "forward-looking" statements within the meaning of the Private Securities Litigation Reform Act of 1995. These forward-looking statements include, without limitation, statements regarding our industry, business strategy, plans, goals and expectations concerning our market position, international expansion, future technologies, future operations, margins, profitability, future efficiencies, capital expenditures, liquidity and capital resources and other financial and operating information. When used in this discussion, the words "anticipate," "assume," "believe," "budget," "continue," "could," "estimate," "expect," "intend," "may," "plan," "potential," "predict," "project," "should," "will," "future" and the negative of these or similar terms and phrases are intended to identify forward-looking statements in this Annual Report on Form 10-K. Forward-looking statements are based on current expectations and assumptions that are subject to risks and uncertainties that may cause actual results to differ materially. We describe risks and uncertainties that could cause actual results and events to differ materially under "Risk Factors," "Quantitative and Qualitative Disclosures about Market Risk," and "Management's Discussion and Analysis" in this report. We undertake no obligation to update or revise publicly any forward-looking statements, whether because of new information, future events, or otherwise.

### Item 1. Business

### Who We Are

Gogo is the leading global provider of in-flight broadband connectivity and connectivity-enabled services to commercial and business aviation. Aircraft operators use our services primarily to provide their passengers with Internet and entertainment services, and, more recently, to improve operational efficiency and the passenger experience by connecting the aircraft and its crew.

Our industry-leading solutions integrate Gogo's proprietary hardware and software on the aircraft with satellite and ground-based networks engineered to meet the unique needs of global aviation. We support aircraft operators globally with services ranging from installation and maintenance to monitoring and management of connectivity services. We also provide software platforms for an expanding suite of passenger and aircraft operator applications.

We currently provide broadband connectivity services to approximately 3,000 commercial aircraft and approximately 4,200 business aircraft, and have awards to install our latest generation global satellite solution, 2Ku, on approximately 1,500 commercial aircraft (of which approximately 130 have been installed). Our leading global market share supports our continued investment in global operations and ongoing research and development.

### **Our Customers**

We have three reporting segments: Commercial Aviation-North America ("CA-NA"), Commercial Aviation-Rest of World ("CA-ROW") and Business Aviation ("BA"). In each segment, we deliver our equipment for existing aircraft through the after-market channel and for new aircraft through the original equipment manufacturer ("OEM") channel.

- Through CA-NA, we offer air-to-ground ("ATG") and satellite connectivity and entertainment services to commercial aircraft flying routes generally within North America, operated by Aeromexico, Air Canada, Alaska Airlines, American Airlines, Delta Air Lines, United Airlines and Virgin America pursuant to long term agreements.
  - As of December 31, 2016, CA-NA had 2,676 aircraft online, 1,719 of which were equipped with ATG-4, 898 with ATG, 59 with 2Ku and 2,545 with Gogo Vision, our in-flight entertainment service. This segment generated revenue of \$371.5 million, \$310.7 million and \$250.8 million for the years ended December 31, 2016, 2015 and 2014, respectively. CA-NA segment profit was \$71.9 million, \$41.9 million and \$26.0 million for the years ended December 31, 2016, 2015 and 2014, respectively.
- Through CA-ROW, we offer satellite connectivity and entertainment services, using 2Ku and Ku solutions, to commercial aircraft flying routes outside of North America, operated by Delta Air Lines, GOL, Japan Air Lines and Virgin Atlantic Airways pursuant to long-term agreements. In September 2016, we signed a long-term agreement with Air Canada to provide our 2Ku service on approximately 75 aircraft. In March 2016, we entered into a letter of intent with International Airlines Group (IAG) to bring our 2Ku technology to more than 100 British Airways and Iberia aircraft. In September 2016, we entered into a memorandum of understand with Air France-KLM to install our 2Ku technology on its existing long-haul fleet of approximately 120 aircraft.
  - As of December 31, 2016, our CA-ROW segment had 267 aircraft online, 259 of which were installed with Ku and 8 with 2Ku and Gogo Vision was installed on 271 CA-ROW aircraft. This segment generated revenue of \$25.4 million, \$11.6 million and \$2.1 million for the years ended December 31, 2016, 2015 and 2014, respectively. CA-ROW segment loss was \$87.6 million, \$76.4 million and \$78.1 million for the years ended December 31, 2016, 2015 and 2014, respectively.
- Through BA, we offer a broad suite of integrated equipment, network and Internet connectivity products and services to the business aviation market. Our BA connectivity services include Gogo Biz and Gogo Biz 4G, for broadband Internet connectivity in North America using our ATG network, and Iridium and SwiftBroadband ("SBB") for lower bandwidth global connectivity using satellite networks. BA's customers include OEMs such as Beechcraft, Bombardier, Cessna, Dassault Falcon, Embraer, Gulfstream, and Learjet, as well as the largest fractional jet operators (including Delta Private Jets, Flexjet, Flight Options and NetJets), charter operators, corporate flight departments, and individuals. We have a global distribution network of approximately 170 independent certified dealers.

As of December 31, 2016, BA had 4,172 aircraft online with Gogo Biz, 5,286 with Iridium, 214 with SBB and orders or commitments for more than 500 with Gogo Biz 4G. This segment generated revenue of \$199.6 million, \$178.7 million and \$155.6 million for the years ended December 31, 2016, 2015 and 2014, respectively. BA segment profit was \$82.9 million, \$71.9 million and \$63.0 million for the years ended December 31, 2016, 2015 and 2014, respectively.

### **Our Network Solutions**

Our network solutions are engineered to provide industry-leading cost, capacity, coverage, reliability and aero-performance. Our global satellite network is designed to meet the needs of the approximately 20,000 commercial aircraft comprising the global commercial aircraft market. Our ATG network targets approximately 22,000 business aircraft and commercial regional jets in North America. The amount of data delivered by our networks to and from aircraft increased 60% in 2016 compared to the prior year. We expect continued rapid growth in data volumes on our network.

- Global Satellite Solutions for CA: 2Ku/Ku. We operate a global Ku-band satellite network that is currently comprised of 27 satellites operated by SES, Intelsat and other major providers and 19 teleports owned and operated by Gogo. The capacity, speed, coverage and reliability of this network are continually being improved, as we incorporate additional satellites, including high throughput satellites ("HTS"), which are expected to come online beginning in 2017, and low earth orbit ("LEO") satellites thereafter. We offer two types of airborne equipment that use this network, 2Ku and Ku. As of December 31, 2016, 2Ku was installed on 94 aircraft operated by five of our airline partners, and was awarded but not yet installed on approximately 1,400 aircraft. 2Ku employs two low-profile, proprietary satellite antennas with higher spectral efficiency, superior equatorial performance, and lower drag and fuel burn as compared to competing satellite antennas. 2Ku delivered peak speeds to the aircraft above 20 Mbps in 2016, and will deliver peak speeds above 100 Mbps in 2017, as HTS and our next generation modem are deployed. As of December 31, 2016, our Ku service also delivered peak speeds over 20 Mbps and will deliver peak speeds above 50 Mbps in 2017.
- Global Satellite Solutions for BA: Iridium and SBB. BA provides global satellite services using the Iridium and SBB networks. We are the largest reseller of the Iridium satellite network to the business aviation market, providing primarily voice services. The SBB satellite network provides near global coverage from three geostationary Inmarsat satellites and delivers peak data transmission rates up to 432 Kbps.
- North American Solutions for CA-NA and BA: ATG-4/ATG. Our ATG network, uses 3MHz of licensed spectrum in the 850MHz band, approximately 250 terrestrial cell sites and a fiber optic backhaul network to deliver peak speeds of 3.1 Mbps for ATG and 9.8 Mbps for ATG-4 in the lower 48 states and parts of Canada and Alaska. We recently announced development of our next generation ATG network, which will leverage our existing ATG network by employing 60MHz of unlicensed spectrum in the 2.4 GHz band, a proprietary LTE modem and a beam-forming antenna to produce an expected peak speed to the aircraft above 100 Mbps. This new ATG technology is expected to be available in 2018 and will be primarily targeted at larger business aviation aircraft and smaller commercial aircraft in North America.
  - Our ATG network offers a smaller, lighter, less expensive and faster-to-install antenna, compared to satellite solutions, which reduces drag, fuel burn and associated operating costs for the market of approximately 22,000 business and commercial regional jets in North America that rarely fly over large bodies of water. As of December 31, 2016, we had 898 aircraft equipped with ATG service and 1,719 aircraft equipped with ATG-4 service in CA-NA, and 4,172 aircraft equipped with ATG service in BA. We expect to begin providing Gogo Biz 4G, an ATG-4 solution, on BA aircraft in 2017.
- <u>Airborne Equipment</u>. We offer complete packages of airborne equipment for each of our ATG and satellite technologies through after-market and OEM distribution channels. Airborne equipment includes modems, servers, wireless access points, and antennas. The antennas for Ku and 2Ku satellite services are more complex than the ATG antenna and require additional equipment to point the antenna at the satellite and a radome to cover the antenna. The equipment for approximately 200 of the 2Ku awarded aircraft will be installed by OEMs. For CA, we also offer installation, certification, and warranty and maintenance services. For BA, we tailor our equipment offering to accommodate a wide range of aircraft from small jets and turboprops to larger jets with global range. Approximately half of the airborne equipment installed on BA aircraft in 2016 was sold through OEMs.

### **Our Services**

We generate a substantial majority of our service revenue from passenger connectivity services. Additional service revenue is derived primarily from wireless in-flight entertainment services and to a lesser extent from airline support services and emerging connected aircraft services.

- Passenger Connectivity Services. Our connectivity services allows passengers to connect to the Internet
  from their personal electronic devices and access corporate and personal applications, including streaming
  services on our higher capacity networks. In CA, we offer a variety of pricing options to passengers, airlines
  and third parties tailored by devices, routes, bandwidth and session durations, in addition to monthly and
  annual subscriptions. In BA, we offer a variety of connectivity services generally priced per aircraft per
  month.
- Passenger Entertainment Services. Through Gogo Vision, our video-on-demand product accessible from
  passengers' personal electronic devices, commercial and business aircraft passengers can access a large
  library of entertainment options, which currently include on-demand movies and television shows. In 2015,
  we introduced Gogo TV, which delivers live television content to passengers on satellite-equipped flights
  using our in-cabin network.
- Connected Aircraft Services. Our emerging Connected Aircraft Services ("CAS") enable commercial airlines and business aircraft operators to improve the passenger experience and enhance operational efficiency by leveraging the connectivity we provide to the aircraft. Key data from aircraft sensors, databases and crew inputs can be combined with ground inputs to provide comprehensive and real-time visibility into operations. For example, currently CAS supports route optimization, turbulence avoidance, electronic flight bag applications and real-time credit card processing and weather data.
- <u>Aircraft Operator Services</u>. We provide the end-to-end capabilities required to accommodate a broad range of customers, which include the development of custom portals for passenger access, 24-hour network monitoring, performance reporting, and account support to manage connectivity programs.

### **Competitive Strengths**

• Innovative Network Technology. We pioneered and have led innovation in our industry for 25 years, as evidenced by the nine network technologies, six of which are proprietary to Gogo, that we have deployed during this time. In addition, we hold more than 100 patents, most of which relate to network technology. We currently offer the broadest and most innovative array of in-flight connectivity technologies available in the market, including 2Ku, Ku, ATG-4/ATG, SBB and Iridium and expect our next generation ATG technology to be available in 2018. The breadth of our technologies allows our customers to select the best solution based on aircraft sizes and routes. Our latest generation global satellite solution, 2Ku, will produce peak speeds to the aircraft above 100 Mbps in 2017, once HTS and our next generation modem are deployed. Our next generation ATG network will also have peak speeds in excess of 100 Mbps. We are also conducting research and development in areas that include LEO satellites and a fully electronic phased array antenna.

The open architecture of the 2Ku system enables us to obtain satellite capacity from several existing and anticipated satellite operators without the need for antenna swaps or other invasive changes to the aircraft. The open architecture is facilitated by our proprietary antenna design and our investments in modem and antenna positioner hardware and software. Our strategy does not include owning or operating satellites; rather, we prefer to lease satellite capacity to allow flexibility and adapt to the rapid innovations in the satellite industry. Several HTS will be launched by our providers in 2017 and 2018 and we expect the emergence of LEO satellites in the future. Satellite service providers often incorporate our research and development in the design and performance parameters of next generation satellites which we expect will improve global coverage and redundancy and increase capacity and peak speed. Our open architecture allows us to adapt to these innovations and to provide the bandwidth our customers and their passengers demand now and in the future.

- Global Aircraft Operations. There are unique requirements that separate aviation from terrestrial markets and scale and expertise specific to this market are required for success. Gogo supports the largest fleet of connected aircraft in the world and we have acquired significant technological and operational know-how and developed long-term and robust supplier relationships in both business and commercial aviation. We installed or materially upgraded hardware on approximately 1,900 business and commercial aircraft in 2016. In commercial aviation, we have the capability to install ATG equipment overnight and satellite solutions within three days, and to deploy software upgrades remotely. During 2016, we provided maintenance to customer aircraft that flew more than four million flights to six continents during the year.
- <u>Customizable Platform</u>. Our customers require a hardware and software platform that allows connectivity-enabled services to be deployed quickly, easily and flexibly. For example, our airline partners have designed custom passenger portals that rely on Gogo's platform for many functions, including user accounts and passwords, payments, entertainment and other stored content. Additionally, our platform provides hosting, reporting, data labels, storage and other capabilities for CAS. In 2016, our platform powered increasingly customized portals for ten airlines, supported more than 75 million visitors and processed more than 50 million connectivity sessions and entertainment views.

### **Growth Strategy**

The four key drivers fueling Gogo's growth and financial performance are: increasing the number of Gogo-connected aircraft, increasing average revenue per aircraft, reducing investment per aircraft and improving margins.

### **Increase Number of Gogo-Connected Aircraft**

Airlines have not yet made the decision to install broadband connectivity on nearly half of the global fleet of approximately 20,000 commercial aircraft and less than 20% of the global fleet of nearly 30,000 business aircraft is currently broadband connected. Furthermore, approximately 40,000 new commercial aircraft are expected to be produced over the next 20 years. We expect that nearly all of the world's commercial aircraft and a rapidly increasing percentage of business aircraft will be broadband connected over the next decade.

- Commercial Aviation. As of December 31, 2016, we provided our services on 2,943 commercial aircraft, an increase of 14% from the prior year. In addition, we have definitive contracts, letters of intent or memorandums of understanding in place to install our equipment and provide our services on approximately 700 additional aircraft. Our growth strategy is to target the approximately 10,000 additional unserved existing aircraft by leveraging our established retrofit capabilities and the new aircraft market by increasing the availability of our systems for factory installation by Boeing, Airbus and Bombardier.
- Business Aviation. As of December 31, 2016, the business aviation market was comprised of approximately 22,000 business aircraft in North America and approximately 7,600 business aircraft in the rest of the world, and we had approximately 7,400 business aircraft online, principally in North America. We increased the number of broadband business aircraft online by nearly 800 in 2016. Our growth strategy is to continue to leverage our existing ATG network, broad suite of service options and recently announced next generation ATG network to expand in North America, and to use 2Ku and other satellite technologies to grow our business internationally. In 2016, we introduced cockpit services and expanded our pricing options by introducing hourly pricing plans targeting the untapped turboprop and light jet segments.

### Increase Average Revenue per Aircraft

We expect to continue to grow average revenue per aircraft ("ARPA") by increasing the take rates for passenger connectivity and the adoption of additional services, including entertainment and CAS.

Our strategies for increasing ARPA include the following:

• <u>Increase Passenger Adoption of Connectivity</u>. The adoption of mobile devices and the demand for continuous Internet access have surged in recent years, and most passengers now carry personal electronic

devices in flight. This trend creates a significant opportunity for increased adoption of our services from the fewer than 7% of passengers on Gogo-equipped commercial aircraft who used our connectivity services in 2016. We expect passenger usage to increase significantly, and our goal is to connect every passenger on every aircraft through the following:

- <u>Increase Network Capacity</u>. Our technology roadmap provides the bandwidth for a "ground-like" experience, including video streaming, for all passengers on every flight. The greater than ten-fold increase in capacity and peak speed provided by 2Ku and next generation ATG, as compared to our ATG-4 technology, will enable rapid growth in passenger adoption.
- Expand Payers and Services. With the introduction of 2Ku and the increased bandwidth speeds it provides, we can offer tiered services that allow passengers or airlines to select from various levels of functionality (for example browsing vs. streaming). To date, a majority of our CA service revenue has been paid by passengers. We expect service revenue from airlines and other third parties to grow, as airlines increasingly purchase bandwidth for their passengers and for their own use and as companies such as T-Mobile are paying Gogo to make our services available to their customers while in-flight. Through BA, we continue to introduce flexible pricing for our broadband and voice services, allowing aircraft operators and owners various options based on data usage, flight frequency and the number and size of aircraft serviced.
- Increase Usage of Wireless Entertainment. Gogo Vision was available on nearly all Gogo-connected aircraft in CA and approximately 190 BA aircraft as of December 31, 2016. Through our Gogo Vision platform, airlines offer passengers a library of movies and TV shows for wireless streaming to personal devices. In 2016, most of our airline customers stopped charging passengers for the service and began offering free access. As a result, Gogo Vision had more than 20 million views in 2016, double the prior year. We expect wireless entertainment views to continue to grow rapidly, driven by increased awareness of the service, additional content, integration with seatback screens and introduction of live television services.
- Enable CAS. We expect that the demand by airlines for connectivity- based applications that improve the passenger experience and operational efficiency will increase significantly over the next several years. This trend will drive data usage on our network and a demand for platform services from Gogo. We are interfacing our equipment with the data buses on aircraft and are developing the hardware and software platforms that facilitate the development and deployment of applications. CAS currently supports route optimization, turbulence avoidance, electronic flight bag applications and real-time credit card processing and weather data.

### Reduce Our Investment per Aircraft

Our investment per aircraft is the installed cost of airborne equipment less the proceeds received from the airline. In 2016, we significantly reduced the installation cost per 2Ku aircraft by shortening the installation time from eight days to three days, and reduced equipment cost through engineering improvements and volume discounts. Furthermore, based on agreed-upon terms for our 2Ku awarded but uninstalled aircraft, proceeds from airlines as a percentage of 2Ku installation costs will increase from 2017 to 2018. In addition, our ability to leverage our growing portfolio of supplemental type certificates ("STCs") will further reduce the cost of and time required to install new fleets.

### **Improve Margins**

We have made substantial investments in our network technologies, aircraft operations and platform in order to serve aircraft operators globally. As we leverage these investments by adding aircraft online and increasing revenue per aircraft, our margins will improve. For instance, in CA-ROW, we have purchased substantial global satellite capacity and invested in global sales, account management, aircraft engineering and certification, installation and maintenance capabilities. The growth of CA-ROW aircraft online will improve our margins per aircraft, per megabyte and overall by the end of 2018, but we will not see margin improvement in 2017 due to costs associated with the launch of new airlines in CA-ROW and OEM channel initiatives. For CA-NA, the improved ARPA from the additional bandwidth provided by 2Ku deployments is expected to improve margins beginning in 2018, with margin improvement from next generation ATG expected thereafter.

### **Contracts with Airline Partners**

In CA, we enter into connectivity agreements with our airline partners under which the airlines commit to have our equipment installed on some or all of the aircraft they operate, and we commit to provide passenger connectivity and/or entertainment services, and in some circumstances CAS, on such aircraft. We have the exclusive right to provide Internet connectivity services on Gogo-installed aircraft throughout the term of the agreement in contracts with airline partners from which we derive a substantial majority of our CA revenue. The majority of our contracts with our airline partners have 10-year terms, with staggered expiration dates occurring on a fleet by fleet basis based on installation dates or on a contract basis, depending on the contract. Under our current contracts, the first expiration will occur in 2017 and the last in 2027 or later, depending on the timing of future installations.

Historically, our CA business has offered airline partners a turnkey model, under which we provide the airline with the full range of our services, charge the passenger for passenger connectivity or Gogo Vision services at prices we determine and remit to the airline a specified percentage of passenger revenue. Under such model, for satellite-based connectivity services, the airline typically pays Gogo a monthly fee for network monitoring and management services. We also offer and provide the airlines the option to adopt an airline-directed model, whereby the airline partner has flexibility to determine which of the many end-to-end services it wants Gogo to provide, which services it wants to provide itself and how it wishes to price the services provided to passengers. For example, an airline may elect to be the retailer for in-flight connectivity and entertainment services to its passengers, rather than using Gogo as the distributor. In such case, we will determine with the airline a fee structure that compensates us for the connectivity provided and the bandwidth consumed as well as any other services provided by Gogo.

Depending on the contract, installation and maintenance services may be performed by us and/or the airline. When we provide such services, under some agreements we include charges for installation and maintenance in our equipment pricing package; in other circumstances, the airline pays us directly for such services. In addition, under contracts with airline partners from which we derive a substantial majority of our CA revenue, we are obligated, subject to certain limitations, to upgrade or improve the ATG equipment installed on certain aircraft to ATG-4, and to obtain STCs, at our expense. Under certain contracts, we provide equipment credits or other incentives based on the number of aircraft installed with our equipment and the timing of such installations. Our contracts with airline partners set forth specified timelines for the installation or delivery of our airborne equipment, as well as service level commitments and our failure to meet such timelines or service level commitments, generally requires us to pay penalties or liquidated damages to the airlines and in certain circumstances may result in our airline partners being permitted to terminate all or a portion of the contract. See "Risk Factors—Risks Related to Our CA Business—A failure to maintain airline satisfaction with our equipment or the Gogo service could have a material adverse effect on our revenue and results of operations."

As of December 31, 2016, under agreements with eight of our airline partners, the scope of the services included Gogo Vision and we are discussing with other airline partners the possibility of providing Gogo Vision on their installed fleets. We also provide under certain agreements content filtering and CAS, such as real-time credit card processing for passenger food and beverage purchases, flight crew access to real-time weather information, electronic flight bags and voice services in the cockpit.

Revenue from service provided on aircraft operated by Delta Air Lines accounted for approximately 27% of our consolidated revenue for the year ended December 31, 2016. We have three contracts with Delta Air Lines. The contract for ATG service on Delta Air Lines' mainline and regional jet fleets expires on the 13-year anniversary of specified installation milestones, which will occur in 2022 and 2025, respectively. Our contracts with Delta Air Lines for Ku-band satellite service on its international fleet and for 2Ku service expire in 2027.

Revenue from service provided on aircraft operated by American Airlines (including legacy US Airways aircraft) accounted for approximately 23% of our consolidated revenue for the year ended December 31, 2016.

On February 24, 2017, we replaced our multiple contracts with American Airlines (including the contract originally entered into with US Airways) with one unified agreement (the "Unified Agreement") covering aircraft installed or to be installed with our ATG and ATG-4 technologies and to be installed with our 2Ku technology. The Unified Agreement has different expiration dates for different fleet types. Generally, the term for each fleet type, other than those on which 2Ku will be installed, expires on the 10-year anniversary of the date on which 90% of such fleet type has been installed with our ATG equipment, or when the fleet types are retired or deinstalled, with the first expiration date occurring in 2019 and the last in 2025. The Unified Agreement will expire with respect to the 2Ku-installed fleet in 2019.

Each of our contracts with Delta Air Lines and American Airlines provides for early termination by the airline in specified circumstances and allows the airline to terminate the contract should the percentage of passengers using the Gogo service on the airline's flights not meet certain thresholds. We currently experience, and for the last five years have experienced, connectivity take rates in excess of those thresholds. In addition, under the Unified Agreement, American Airlines has the right at any time to terminate Gogo service on approximately 550 mainline aircraft on which our ATG service is currently provided, and we currently expect such aircraft to be deinstalled over the next several years. Our contracts with Delta Air Lines and American Airlines also permit these airlines to terminate their contracts prior to expiration upon the occurrence of other certain contractually stipulated events, including our failure to meet service level requirements and the circumstance in which another company provides an alternate connectivity service that is a material improvement over our passenger connectivity service, such that failing to adopt such service would likely cause competitive harm to the airline, and we are unable to match the competitive offer in terms of price, technology and schedule. See "Risk Factors—Risks Related to Our CA Business—We are dependent on agreements with our airline partners to be able to access the passengers. Payments for our passenger services have provided, and we expect will continue to provide, a significant portion of our revenue. Our failure to realize the anticipated benefits from these agreements on a timely basis or to renew any existing agreements upon expiration or termination could have a material adverse effect on our financial condition and results of operations," "Risk Factors—Risks Related to Our CA Business—If we are unable to successfully implement planned or future technology enhancements to increase our network capacity, or our airline partners do not agree to such enhancements, our ability to maintain sufficient network capacity and our business could be materially and adversely affected" and "Risk Factors—Risks Related to Our CA Business—A failure to maintain airline satisfaction with our equipment or the Gogo service could have a material adverse effect on our revenue and results of operations." Our contracts with these airlines also permit the airline to terminate the agreement with respect to certain fleets on specified dates, subject to payment of a specified termination fee. If our contracts with Delta Air Lines or American Airlines were to be terminated in whole or in significant part for any reason, it would have a material adverse effect on our business.

No other contract accounted for more than 10% of our consolidated revenue for the year ended December 31, 2016.

### **Installation and Maintenance**

We have two assembly facilities and have fostered installation and maintenance relationships to provide quality service in our product offerings. Our CA and BA assembly, installation and maintenance activities take place at FAA-certified production facilities in Bensenville, Illinois and Broomfield, Colorado, respectively. The facilities are FAA-certificated repair stations and are operating in accordance with FAA-issued ratings and quality control systems, pursuant to FAA regulations. The repair stations' authorized activities include receiving, inspecting, equipment and system testing, kitting, warehousing and completion of regulatory shipping documentation. We work with our airline partners and third-party vendors to install and maintain our equipment on aircraft. Some of our airline partners choose to use their own mechanics to provide installation and maintenance services, in which case we provide training and on-site installation support and logistics. Other airlines look to us for these services as all of our installation and maintenance vendors meet the certification requirements established by the airlines and the FAA.

### **Technology Infrastructure**

Our proprietary ATG and satellite networks and technology platforms, consisting of both hardware and software in the aircraft and on the ground, have been designed and developed to create highly compelling user experiences and enable future domestic and international service and product growth, while managing the bandwidth and regulatory constraints associated with in-flight media and content delivery. We have developed sophisticated custom software and hardware that optimizes the air-to-ground link (direct air-to-ground and satellite-based) and traffic through the ability to monitor end-to-end network performance from the ground. Our network and systems architecture was designed to evolve with best of breed technologies and enable us to employ new technological innovations across our own ATG network and third-party satellite networks using Ku-band satellite service.

Our expenditures for research and development are charged to expense as incurred and totaled \$45.9 million, \$50.1 million and \$40.1 million for the years ended December 31, 2016, 2015, and 2014, respectively.

### Our ATG Network

In 2006, we acquired through an FCC auction, an exclusive nationwide license for 3 MHz ATG spectrum operating in the 800 MHz band (the "ATG License"), which is the only licensed broadband spectrum reserved for ATG services. In the second quarter of 2013, we consummated the acquisition of LiveTV Airfone, LLC ("Airfone"), through which we acquired the FCC license for 1 MHz of ATG spectrum ("1 MHz ATG License") held by LiveTV, LLC ("LiveTV"). In 2012, Industry Canada issued to our Canadian subsidiary the exclusive rights to use Canadian ATG spectrum for which SkySurf is the primary licensee (the "License Agreement"). The License Agreement has an initial term of ten years and is renewable at our option for an additional 10-year term following the initial expiration and thereafter for a further five-year term.

We have coverage over the contiguous United States and portions of Alaska and Canada. As of December 31, 2016, our ATG network consisted of approximately 250 cell sites. In 2018, we expect to start upgrading the ATG network to provide our next generation ATG services, and we expect to add more cell sites over the next several years to maintain efficient delivery of our growing mobile broadband services. These sites are connected to our data centers, which are in turn connected to the Internet. This connectivity is provided by a state-of-the-art Multi-Protocol Label Switching ("MPLS") network and a flexible and scalable IP-based infrastructure. The cell sites are connected to the MPLS network using fiber-optics (Ethernet & DS3), microwave where required or copper (T1).

In order to increase bandwidth speeds and provide additional capacity in North America, we recently announced development of our next generation ATG network, which will employ 60MHz of unlicensed spectrum in the 2.4 GHz band and provide peak speeds to the aircraft above 100 Mbps. This network will utilize LTE technology and coexist with and leverage our existing ATG network and spectrum. We expect this new technology to be available beginning in 2018 and to be targeted primarily at larger business aviation aircraft and smaller commercial aircraft in North America.

### Our Satellite Networks

We provide near-global Ku-band satellite service using transponder capacity from our satellite providers. Our first generation Ku service was commercially launched in 2013, and we announced 2Ku, our latest generation satellite service in 2014. We obtained our first 2Ku STC in late 2015, and 2Ku became commercially available to passengers in 2016. 2Ku employs two low-profile, highly efficient satellite antennas (one for transmission to the aircraft and the other for transmission from the aircraft) that provide twice the spectral efficiency of our Ku service and significantly improve coverage in equatorial regions and results in less drag and fuel burn as compared to other satellite alternatives. Our 2Ku satellite antennas can be used in conjunction with all Ku-band satellites in operation today and are designed to be compatible with HTS as they come online beginning in 2017 and with LEO satellites expected at a later time.

Our Iridium service is supported by a network of 66 Iridium satellites. In addition, we launched SBB service in 2014, which is supported by three geostationary (Inmarsat I-4) satellites. Our high bandwidth offering of Global Xpress Jet ConneX became operational in 2016 and is supported by three satellites.

### Our Airborne Network

Our airborne equipment includes core module components (including an onboard server, or ACPU, wireless access points, or WAP, and optionally a content loading device, or CLD, and handsets for cockpit/crew use) and technology-specific communication components (including a modem, amplifier, antenna and radome). We leverage standard technology and components in our system where available and design our system by selecting, assembling and packaging components that can withstand temperature, pressure and vibration on aircraft in-flight. Passengers connect to our service through our in-cabin Wi-Fi network. We are continuing to innovate and develop advanced technologies for storage, processing and connectivity for the in-cabin network.

Our customized airborne network allows us to manage data traffic in real time in order to mitigate capacity constraints through sophisticated bandwidth management and to place cached entertainment and other content directly on airborne network servers, both of which increase the speed and quality of our service.

### Our Ground Network (Data Centers and Network Operations Center ("NOC"))

Our data centers, which service our ATG and satellite technologies, provide redundant telecommunications connections to the Internet and contain numerous servers associated with hosting our in-flight and ground portals and the network nodes that enable the rich set of features offered through the Gogo platform. Additionally, we have started to offload portions of our network to cloud-based services. Most of the data center nodes are common across our ATG and satellite technologies, while some nodes are technology specific.

The NOC, located in our Chicago, Illinois facility, serves as the central location that monitors daily network operation, conducts network diagnostics and coordinates responses to any performance issues on the ground or in the air. The NOC provides 24 hours a day, 365 days a year management and surveillance of network performance and activities through the use of network management and reporting systems. These systems interface with all network elements and have the ability to monitor the connection and status of all our equipped aircraft in-flight, regardless of the technology used to provide in-flight connectivity.

### Competition

### Commercial Aviation

Our key competitors include Global Eagle Entertainment Inc., Inmarsat, OnAir, Panasonic Avionics Corp., Rockwell Collins/ARINC, Thales/LiveTV, ViaSat and Zodiac Inflight Innovations, all of which provide different technologies and strategies to provide in-flight connectivity and/or entertainment. We believe we are the only telecommunications company focused exclusively on global aviation and its unique connectivity requirements. We believe the key differentiating factors between us and our competitors include: technology solutions, geographical coverage, operational excellence, and service models offered to airlines. The strategic priorities, offerings and capabilities of our competitors vary, including the variety of technologies available for various aircraft types, the ability to offer in-flight Internet solutions as well as entertainment offerings such as live television and traditional hard-wired in-flight entertainment systems, the ability to cost-effectively provide offerings on a global basis, the ability to manage capacity constraints, and the ability to offer, incorporate and manage new in-flight connectivity technologies and solutions as they become available.

### **Business** Aviation

Gogo is the only equipment and service provider of three networks: ATG, SBB and Iridium. We compete against both equipment and telecommunications service providers to the business aviation market, including,

Honeywell Aerospace, Rockwell Collins, Satcom Direct and ViaSat. Also, Global Eagle Entertainment Inc., Panasonic Avionics Corp. and SmartSky Networks all recently announced that they intend to enter the business aviation market.

### **Licenses and Regulation**

### Federal Aviation Administration

The FAA prescribes standards and certification requirements for the manufacturing of aircraft and aircraft components, and certifies repair stations to perform aircraft maintenance, preventive maintenance and alterations, including the installation and maintenance of aircraft components. Each type of aircraft operated in the United States under an FAA-issued standard airworthiness certificate must possess an FAA Type Certificate, which constitutes approval of the design of the aircraft type based on applicable airworthiness standards. When a party other than the holder of the Type Certificate develops a major modification to an aircraft already type-certificated, that party must obtain an FAA-issued STC approving the design of the modified aircraft type. We regularly obtain STCs for each aircraft type operated by each airline partner on whose aircraft our equipment will be installed and separate STCs typically are required for different configurations of the same aircraft type, such as when they are configured differently for different airlines.

After obtaining an STC, a manufacturer desiring to manufacture components to be used in the modification covered by the STC must apply to the FAA for a Parts Manufacturing Authority, or PMA, which permits the holder to manufacture and sell components manufactured in conformity with the PMA and its approved design and data package. In general, each initial PMA is an approval of a manufacturing or modification facility's production quality control system. PMA supplements are obtained to authorize the manufacture of a particular part in accordance with the requirements of the pertinent PMA, including its production quality control system. We routinely apply for and receive such PMAs and supplements.

Certain of our FCC licenses are conditioned upon our ability to obtain from the FAA a "No Hazard Determination" for our cell sites which indicates that a proposed structure will not, if built as specified, create a hazard to air navigation. When building or altering certain cell sites we may first be required to obtain such a determination.

Our business depends on our continuing access to, or use of, these FAA certifications, authorizations and other approvals, and our employment of, or access to, FAA-certified engineering and other professionals.

In accordance with these certifications, authorizations and other approvals, the FAA requires that we maintain, review and document our quality assurance processes. The FAA may visit our facilities at any time as part of our agreement for certification as a manufacturing facility and repair station to ensure that our facilities, procedures, and quality control systems continue to meet FAA requirements. In addition, we are responsible for informing the FAA of significant changes to our organization and operations, product failures or defects, and any changes to our operational facilities or FAA-approved quality control systems. Other FAA requirements include training procedures and drug and alcohol screening for safety-sensitive employees working at our facilities or on aircraft.

### Foreign Aviation Regulation

According to international aviation convention, the airworthiness of FAA-certified Gogo equipment installed on U.S.-registered aircraft is recognized by civil aviation authorities ("CAAs") worldwide. As a result, Gogo does not expect to require further airworthiness certification formalities in countries outside of the United States for U.S.-registered aircraft that already have an STC issued by the FAA covering Gogo equipment. For aircraft registered with a CAA other than the United States, the installation of Gogo equipment requires airworthiness certification from an airworthiness certification body. Typically, the CAA of the country in which the aircraft is registered is responsible for ensuring the airworthiness of any aircraft modifications under its authority.

The FAA holds bilateral agreements with a number of certification authorities around the globe. Bilateral agreements facilitate the reciprocal airworthiness certification of civil aeronautical products that are imported/exported between two signatory countries. A Bilateral Airworthiness Agreement ("BAA") or Bilateral Aviation Safety Agreement ("BASA") with Implementation Procedures for Airworthiness ("IPA") provides for airworthiness technical cooperation between the FAA and its counterpart CAA. Under a BAA or BASA, the CAA of the aircraft's country of registration generally validates STCs issued by the FAA and then issues a Validation Supplemental Type Certificate ("VSTC"). For countries with which the FAA does not have a BAA or BASA, Gogo must apply for certification approval with the CAA of the country in which the aircraft is registered. In order to obtain the necessary certification, Gogo will be required to comply with the airworthiness regulations of the country in which the aircraft is registered. Failure to address all foreign airworthiness and aviation regulatory requirements at the commencement of each airline partner's service in any country in which they register aircraft when there are no applicable bilateral agreements may lead to significant additional costs related to certification and could impact the timing of our ability to provide our service on our airline partners' fleet.

### U.S. Department of Transportation

The U.S. Department of Transportation ("DOT") established an Advisory Committee on Accessible Air Transport to negotiate and develop a proposed rule concerning accommodations for passengers with disabilities in three basic areas, including in-flight entertainment ("IFE") and closed captioning of IFE. The Committee recently issued a resolution which included its recommendations to the DOT for a rule on IFE. Since a final rule on IFE has not been issued, however, it is unclear how, if at all, it may impact Gogo.

### Federal Communications Commission

Under the Communications Act of 1934, as amended (the "Communications Act"), the FCC licenses the spectrum that we use and regulates the construction, operation, acquisition and sale of our wireless operations. The Communications Act and FCC rules also require the FCC's prior approval of the assignment or transfer of control of an FCC license, or the acquisition, directly or indirectly, of more than 25% of the equity or voting control of Gogo by non-U.S. individuals or entities.

Our various services are regulated differently by the FCC. For example, our BA business provides some of its voice and data services (not including Gogo Biz) by reselling the telecommunications services of two satellite operators. Because we provide these services on a common carrier basis, we are subject to the provisions of Title II of the Communications Act, which require, among other things, that the charges and practices of common carriers be just, reasonable and non-discriminatory. In addition, our BA segment provides an interconnected voice over Internet protocol ("VoIP") service. The FCC applies many, but not all, of the same regulatory requirements to interconnected VoIP service as it does to common carrier telecommunications services.

We offer connectivity service in the United States to commercial and business aviation aircraft through our own facilities, using our ATG License, a nationwide commercial air-ground radiotelephone license that operates in the 800 MHz band. We obtained and paid for this spectrum through an auction conducted by the FCC. See "—ATG License Terms and Conditions."

Previously, our mobile wireless broadband Internet access services were classified as information services, and not as telecommunications services. Therefore, these services were not subject to FCC common carrier regulation. However, effective June 12, 2015, the FCC reclassified certain mobile (and fixed) broadband Internet access services as Title II telecommunications services in an order released March 12, 2015 ("Open Internet Order"). The Open Internet Order also adopted broad new net neutrality rules. For example, covered broadband providers may not block access to lawful content, applications, services or non-harmful devices. Broadband providers also may not impair or degrade lawful Internet traffic on the basis of content, applications, services or non-harmful devices. In addition, broadband providers may not favor some lawful Internet traffic over other

lawful traffic in exchange for consideration of any kind, and they may not prioritize the content and services of their affiliates. Other than for paid prioritization, the rules contain an exception for "reasonable network management." The Open Internet Order recognizes that whether a network management practice is reasonable varies according to the broadband technology involved, and we believe provides more flexibility to implement network management practices in the context of Gogo's capacity-constrained air-to-ground and satellite broadband networks.

The FCC order also imposes new disclosure requirements on broadband providers, including more granular network performance reporting requirements. The FCC temporarily exempted smaller providers, such as Gogo, from its enhanced disclosure requirements. The exemption was recently extended until February 2022.

Our Internet access service is also subject to the FCC's data roaming rules, which require commercial mobile data service ("CMDS") providers like Gogo to negotiate roaming arrangements with any requesting facilities-based, technologically compatible providers of CMDS. The rules do not give other providers the right to install equipment on Gogo-equipped aircraft, and do not require the Gogo service to be provided on a discounted basis, although the arrangement must be "commercially reasonable." The rules allow us to take reasonable measures to safeguard the quality of our service against network congestion that may result from roaming traffic. The Open Internet Order did not alter Gogo's obligations with respect to data roaming, but the FCC has committed to revisiting data roaming rules in the future.

In addition, most of our services are subject to various rules that seek to ensure that the services are accessible by persons with disabilities, including requirements related to the pass-through of closed captioning for certain IP-delivered video content offered through our Gogo Vision service.

In addition to the two ATG licenses, we hold other FCC licenses, including microwave licenses that are used for backhaul in our terrestrial network, two fixed satellite earth station licenses used for network testing and support, one experimental license used for testing equipment, two aircraft radio licenses, an authorization for the provision of voice and data services between the U.S. and foreign points, and a non-exclusive license at 3650 MHz, which currently does not authorize operational use and would require registration with the FCC of transmitter site locations prior to commencing use. We also hold a license for blanket authority to operate Ku-band satellite transceivers on up to 2,000 aircraft, which allows us to provide domestic and international broadband service (although some countries require additional authorizations of their own).

### ATG License Terms and Conditions

The FCC issued our ATG License on October 31, 2006, for a renewable 10-year term. We have satisfied our obligation under the license to provide "substantial service" to aircraft and on January 25, 2017, we received confirmation from the FCC that the license has been renewed until October 31, 2026.

Our 1 MHz ATG license obtained in 2013 from LiveTV was also originally issued on October 31, 2006, for a renewable 10-year term, although there is no "substantial service" obligation that attaches to this license. Our application to renew our license was recently granted for an additional 10-year term.

Our two ATG licenses contain certain conditions that require us to comply with all applicable FCC and FAA rules as well as all bilateral agreements between the U.S. and Canada and the U.S. and Mexico regarding the frequencies that are allocated for ATG services. These agreements apply to our use of the spectrum in areas adjacent to the United States' northern and southern borders and in and out of Canadian and Mexican airspace.

A bilateral ATG spectrum coordination agreement between the U.S. and Canada has been negotiated and approved and a similar agreement between the U.S. and Mexico is in the process of being negotiated. In 2012, Industry Canada issued to our Canadian subsidiary a subordinate license that allows us to use Canadian ATG spectrum of which SkySurf Communications Inc. is the primary licensee. In 2012, we entered into the License

Agreement with SkySurf, which has an initial term of ten years commencing on August 14, 2012, and, provided that the primary spectrum license agreement issued by Industry Canada to SkySurf remains in effect at such dates, is renewable at our option for an additional 10-year term following the initial expiration and thereafter for a further five-year term. The renewal of the primary spectrum license will depend upon the satisfaction by Gogo and SkySurf of certain conditions set forth in the license, including, without limitation, a network build-out requirement which has been met. The term of the License Agreement, including the initial 10-year term and any renewals, is contingent on the effectiveness and renewal of the primary spectrum license, issued by Industry Canada to SkySurf on June 30, 2009, which expires on June 29, 2019.

Prior to spectrum coordination with the ATG licensee in Mexico, the coordination agreement could affect our ability to provide our broadband Internet service in the border areas using our current cell sites at current operating power levels, and could affect our ability to establish or maintain ATG service in the border areas as aircraft fly into and out of Mexican airspace. Once a provider of air-to-ground services is licensed in Mexico, we hope to negotiate an arrangement that will provide seamless connectivity on flights between Mexico and the U.S.

### **Equipment Certification**

We may not lease, sell, market or distribute any radio transmission equipment used in the provision of CA or BA services unless such equipment is certified by the FCC as compliant with the FCC's technical rules. All certifications required for equipment currently used in the provision of our services have been obtained.

### Privacy and Data Security-Related Regulations

As noted above, the Open Internet Order reclassified certain mobile (and fixed) broadband Internet access services as Title II telecommunications services. Certain statutory provisions of Title II now apply to these broadband Internet access services, including provisions that impose consumer privacy protections such as Customer Proprietary Network Information ("CPNI") requirements, Following that issuance of that order, the FCC conducted a separate rulemaking proceeding to update its CPNI rules, and on October 27, 2016, the FCC adopted new privacy and data security rules for broadband Internet access service providers and for voice providers, such as BA, which were already subject to the older CPNI rules. The new rules govern, among other things, the use and disclosure of customer proprietary network information and customer proprietary information, notice and consent practices, cybersecurity, and data breach notifications. A portion of the privacy rules became effective on January 3, 2017, and we believe we are in compliance with these rules and obligations to the extent they are applicable. Other portions of the new rules are scheduled to become effective later this year. The data security obligations are scheduled to become effective March 2, 2017, although the FCC has announced plans to stay the effectiveness of at least some of these obligations. The data breach-notification requirements will become effective the later of Executive Branch approval or June 2, 2017; and the notice and customer approval provisions will become effective on the later of Executive Branch approval or December 4, 2017. However, these rules are subject to possible revisions that could result from the consideration of various pending petitions for reconsideration of the rules. As currently written, the new privacy and data security rules are expected to increase our compliance obligations in certain respects, and we are currently evaluating what, if any, specific effect they may have on our operations.

We are also subject to other federal and state consumer privacy and data security requirements. For example, Section 5 of the Federal Trade Commission ("FTC") Act prohibits "unfair or deceptive acts or practices in or affecting commerce." Although the FTC's authority to regulate the non-common carrier services offered by communications common carriers has not been clearly delineated, FTC officials have publicly stated that they view the FTC as having jurisdiction over Internet service providers' non-common carrier services. Some of our services are subject to the FTC's jurisdiction. The FTC has brought enforcement actions under the FTC Act against companies that, *inter alia*: (1) collect, use, share, or retain personal information in a way that is inconsistent with the representations, commitments, and promises that they make in their privacy policies and other public statements; (2) have privacy policies that do not adequately inform consumers about the company's actual practices; and (3) fail to reasonably protect the security, privacy and confidentiality of nonpublic consumer information.

We collect personally identifiable information, such as name, address, e-mail address and credit card information, directly from our users when they register to use our service. We also may obtain information about our users from third parties. We use the information that we collect to, for example, consummate their purchase transaction, customize and personalize advertising and content for our users and enhance the entertainment options when using our service. Our collection and use of such information is intended to comply with our privacy policy, which is posted on our website, applicable law and our contractual obligations to airlines, BA customers and other third parties, as well as industry standards such as the Payment Card Industry Data Security Standard. We are also subject to state "mini-FTC Acts," which also prohibit unfair or deceptive acts or practices, along with data security breach notification laws requiring entities holding certain personal data to provide notices in the event of a breach of the security of that data. Congress has also been considering similar federal legislation relating to data breaches. A few states have also imposed specific data security obligations. These state mini-FTC Acts, data security breach notification laws, and data security obligations may not extend to all of our services and their applicability may be limited by various factors, such as whether an affected party is a resident of a particular state.

While we have implemented reasonable administrative, physical and electronic security measures to protect against the loss, misuse and alteration of personally identifiable information, cyber-attacks on companies have increased in frequency and potential impact in recent years and may be successful despite reasonable precautions and result in substantial potential liabilities.

As we expand our operations to include a physical international presence, or otherwise expand our collection of personally identifiable information of residents in other countries, we may be subject to the data protection regulations of the relevant countries. On April 27, 2016, the European Union adopted the General Data Protection Regulation ("GDPR"), scheduled to take effect on May 25, 2018, which may result in even more restrictive privacy-related requirements for entities outside the European Union that process personally identifiable information about European data subjects. In addition, certain countries have laws which restrict the transfer of personally identifiable information outside of such countries. For example, both Switzerland and the member states of the European Union impose restrictions on transferring data to countries that they do not deem to offer a similar standard of protection as they require. The United States is a jurisdiction whose processes these countries do not deem adequate for purposes of cross-border personal data transfers.

Certain mechanisms apply under Swiss and European Union member state laws that permit the cross border transfer of personal information to countries that are not deemed adequate, such as the United States. Gogo has entered into standard contractual clauses approved by the European Union and Switzerland to legitimize these transfers. There is a risk that these standard contractual clauses may be invalidated by the Court of Justice for the European Union as a lawful data transfer mechanism on the grounds that they do not provide adequate protection of European data subjects' personally identifiable information. There is also a risk that EU data protection authorities may investigate or bring enforcement actions with criminal and administrative sanctions. Such actions could also damage our business and harm our reputation.

### Truth in Billing and Consumer Protection

The FCC's Truth in Billing rules require full and fair disclosure of all charges on customer bills for telecommunications services, except for broadband Internet access services. Thus, these rules apply to our satellite-based BA services. This disclosure must include brief, clear and non-misleading plain language descriptions of the services provided. States also have the right to regulate wireless carriers' billing; however, we are not currently aware of any states that impose billing requirements on ATG services.

### **CALEA**

The FCC has determined that facilities-based broadband Internet access providers, which include Gogo, are subject to the Communications Assistance for Law Enforcement Act, or CALEA, which requires covered service

providers to build certain law enforcement surveillance assistance capabilities into their communications networks and to maintain CALEA-related system security policies and procedures. Our network has been confirmed as compliant with CALEA by a third-party tester as of May 18, 2011.

### Foreign Government Approvals

In connection with our satellite service, we have implemented a process for obtaining any required authority needed to provide our service over the airspace of foreign countries, or verifying that no additional authorization is needed. Each country over which a Gogo-equipped aircraft flies has the right to limit, regulate (*e.g.*, through a licensing regime) or prohibit the offering of our service. We may not be able to obtain the necessary authority for every country over which a partner airline flies. For some countries, we have not been and do not expect to be able to obtain a definitive answer regarding their potential regulation of our service, and we may incur some regulatory risk by operating over the airspace of these countries. Failure to comply with foreign regulatory requirements could result in penalties being imposed on Gogo and/or on its airline partners, allow airline partners affected by such requirements to terminate their contracts with us prior to expiration or, under a contract with one of our airline partners, require us to pay liquidated damages. See "Risk Factors—Risks Related to Our Technology and Intellectual Property and Regulation." Regulation by United States and foreign government agencies, including the FCC, which issued our exclusive ATG spectrum license, and the FAA, which regulates the civil aviation manufacturing and repair industries in the United States, may increase our costs of providing service or require us to change our services. Moreover, even countries that have previously provided clearance for our service have the right to change their regulations at any time.

### Seasonality

The demand for air travel, including business travel, is subject to significant seasonal fluctuations. We generally expect our overall passenger opportunity to be greater in the second and third quarters compared to the rest of the year due to an increase in leisure travel offset in part by a decrease in business travel during the summer months and holidays. See "Item 7A. Quantitative and Qualitative Disclosures About Market Risk."

### **Intellectual Property**

We rely on a combination of intellectual property rights, including trade secrets, patents, copyrights, trademarks and domain names, as well as contractual restrictions to protect intellectual property and proprietary technology owned or used by us.

We have patented certain of our technologies in the United States and certain countries outside of the United States. As of December 31, 2016, we held United States patents expiring on dates ranging from February 2019 to January 2035, and foreign patents expiring on dates ranging from August 2017 to November 2034. We do not believe that our business is dependent to any material extent on any single patent or group of patents that we own. We also have a number of patent applications pending both in and outside of the United States and we will continue to seek patent protection in the United States and certain other countries to the extent we believe such protection is appropriate and cost-effective.

We consider our brands to be important to the success of our business and our competitive position. We rely on both trademark registrations and common law protection for trademarks. Our registered trademarks in the United States and certain other countries include, among others, "Gogo," "Gogo Biz" and "Gogo Vision," although we have not yet obtained registrations for our most important marks in all markets in which we currently do business or intend to do business in the future. Generally, the protection afforded for trademarks is perpetual, if they are renewed on a timely basis, if registered, and continue to be used properly as trademarks.

We license or purchase from third parties technology, software and hardware that are critical to providing our products and services. Much of this technology, software and hardware is customized for our use and would

be difficult or time-consuming to obtain from alternative vendors. We also license our proprietary technology and software to third parties to enable them to integrate such technology and software into the products they provide to us. Many of our agreements with such third parties are renewable for indefinite periods of time unless either party chooses to terminate, although some of our agreements expire after fixed periods and require renegotiation prior to expiration in order to extend the term. Among the most material of our technology-related agreements are those for aircards, base stations and antennas. Our agreements for aircards, base stations and antennas do not renew automatically and thus require periodic renegotiation. Such agreements as well as certain licenses to commercially available software are material to our business.

We have developed certain ideas, processes, and methods that contribute to our success and competitive position that we consider to be trade secrets. We protect our trade secrets by keeping them confidential through the use of internal and external controls, including contractual protections with employees, contractors, customers, vendors, and airline partners. Trade secrets can be protected for an indefinite period so long as their secrecy is maintained.

### **Employees**

As of December 31, 2016, we had 1,183 employees, including 358 in product and engineering, 533 in network operations, 117 in sales and marketing, and 175 in general and administrative. Of such employees, 257 are employed in our BA operations. None of our employees are represented by a labor union.

### **Corporate Information**

Gogo Inc. is a holding company that does business through its subsidiaries. Our principal operating subsidiaries are Gogo LLC and Gogo Business Aviation LLC, which are direct, wholly-owned subsidiaries of Gogo Intermediate Holdings LLC. Our international business is conducted through a number of subsidiaries, including Gogo Air International Sàrl, a Swiss limited liability company and a direct wholly-owned operating subsidiary of Gogo International Holdings LLC.

Our principal executive offices are located at 111 N. Canal St., Suite 1500, Chicago, IL 60606. Our telephone number is (312) 517-5000. Our website addresses are www.gogoair.com and www.business.gogoair.com.

### **Available Information**

Our websites are located at www.gogoair.com and www.business.gogoair.com, and our investor relations website is located at http://ir.gogoair.com. Our Proxy Statements, Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K and amendments to reports filed or furnished pursuant to Sections 13(a) and 15(d) of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), are available free of charge on the investor relations web site as soon as reasonably practicable after we electronically file such material with, or furnish it to, the SEC. We also provide a link to the section of the SEC's website at www.sec.gov that has all of our public filings, including Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K, all amendments to those reports, our Proxy Statements, and other ownership related filings. Further, a copy of this Annual Report on Form 10-K is located at the SEC's Public Reference Room at 100 F Street, NE, Washington, D.C. 20549. Information on the operation of the Public Reference Room can be obtained by calling the SEC at 1-800-SEC-0330.

We webcast our earnings calls and certain events we participate in or host with members of the investment community on our investor relations website. Additionally, we provide notifications of news or announcements regarding our financial performance, including SEC filings, investor events, press and earnings releases, and blogs as part of our investor relations website. Investors and others can receive notifications of new information posted on our investor relations website in real time by signing up for email alerts and RSS feeds. Further corporate governance information, including our certificate of incorporation, bylaws, corporate governance

guidelines, board committee charters, and code of business conduct, is also available on our investor relations website under the heading "Corporate Governance." The contents of our websites are not intended to be incorporated by reference into this Annual Report on Form 10-K or in any other report or document we file with the SEC, and any references to our websites are intended to be inactive textual references only.

### Item 1A. Risk Factors

You should consider and read carefully all of the risks and uncertainties described below, as well as other information included in this Annual Report, including our consolidated financial statements and related notes. The risks described below are not the only ones facing us. The occurrence of any of the following risks or additional risks and uncertainties not presently known to us or that we currently believe to be immaterial could materially and adversely affect our business, financial condition and results of operations. This Annual Report also contains forward-looking statements and estimates that involve risks and uncertainties. Our actual results could differ materially from those anticipated in the forward-looking statements as a result of specific factors, including the risks and uncertainties described below.

### **Risks Related to Our CA Business**

We are dependent on agreements with our airline partners to be able to access passengers. Payments for our passenger services have provided, and we expect will continue to provide, a significant portion of our revenue. Our failure to realize the anticipated benefits from these agreements on a timely basis or to renew any existing agreements upon expiration or termination could have a material adverse effect on our financial condition and results of operations.

As of December 31, 2016, we had our equipment installed and provided our Gogo service to passengers on aircraft operated by nine airlines, we had a definitive contract with one additional airline and we had letters of intent or memoranda of understanding with five additional airlines. For the years ended December 31, 2016, 2015, and 2014, the Gogo service we provide to passengers on commercial aircraft operated by our airline partners generated approximately 64%, 63% and 60% of our consolidated revenue, respectively. Our ability to meet our commitments to certain of our customers will require us to reach agreements with OEMs, which will require us to comply with OEM specifications, which may be costly and time-consuming. As of December 31, 2016, in addition to the 2,943 commercial aircraft on which we were providing service, we had awards or contracts to install approximately 700 additional aircraft. Our growth is dependent on our ability to have our equipment installed on additional aircraft and increased use of the Gogo service on installed aircraft. Any delays in installations under these contracts may negatively affect our ability to grow our user base and revenue. In addition, we have no assurance that any of our current airline partners will renew their existing contracts with us upon expiration, or that they will not terminate their contracts prior to expiration upon the occurrence of certain contractually stipulated events. Contractual termination events include our bankruptcy and our material breach of contract, which in certain contracts is defined to include material breach of our service level agreements, and/or failure to achieve certain certification, equipment delivery, installation or other milestones within agreed-upon time frames. Several contracts with airline partners permit such airline to terminate the contract if the percentage of passengers using connectivity on such airline's flights falls below certain negotiated thresholds. One contract with an airline partner from which we derive a significant portion, but less than a majority, of our CA-NA segment revenue permits such airline partner to terminate its contract with us if the airline's revenue share falls below certain negotiated thresholds based on the airline's costs incurred to provide the service and Gogo elects to not make the airline whole for such revenue share shortfall. Contracts with our airline partners from which we derive a significant portion, but less than a majority, of our CA-NA segment revenue allow those airlines to terminate a portion or all of their respective agreements after a specified time period upon the payment of a termination fee. Additionally, our contracts with American Airlines, Delta Air Lines, and certain other airline partners, from which we derive a majority of our CA-NA segment revenue, permit such airline partners to terminate all or a portion of their contracts with us if another company provides an alternate connectivity service that is a material improvement over passenger connectivity, such that failing to adopt such service would likely cause competitive harm to the airline, and we are unable to match the competitive offer in terms of price,

technology and schedule. Under the Unified Agreement with American Airlines, approximately 550 Gogo-installed mainline aircraft became subject to deinstallation at American Airlines' option, and we expect such aircraft to be deinstalled or retired over the next several years. To the extent that our airline partners terminate or fail to renew their contracts with us for any reason, our business prospects, financial condition and results of operations would be materially adversely affected.

Certain of our contracts with our airline partners include provisions that, under certain circumstances, entitle our airline partners to the benefit of certain more favorable provisions in other airline partners' connectivity agreements, including terms related to termination, maintenance, service and pricing. These provisions, some of which have retroactive effect, may limit the benefits we realize from contracts containing such provisions. In addition, our inability to identify and offer improved terms to an airline partner in accordance with such a provision could negatively affect our relationship with that airline partner or give rise to a claim that we are in breach of such connectivity agreement.

# A failure to maintain airline satisfaction with our equipment or the Gogo service could have a material adverse effect on our revenue and results of operations.

Our relationships with our airline partners are critical to the growth and ongoing success of our business. For the years ended December 31, 2016, 2015 and 2014, use of the Gogo service on Delta Air Lines aircraft accounted for approximately 27%, 28%, and 26%, respectively, of consolidated revenue. For the years ended December 31, 2016, 2015, and 2014 use of the Gogo service on American Airlines aircraft (including legacy US Airways aircraft) accounted for approximately 23%, 22%, and 22%, respectively, of consolidated revenue. If our airline partners are not satisfied with our equipment or the Gogo service for any reason, including passenger dissatisfaction with the service as a result of capacity constraints, they may reduce efforts to co-market the Gogo service to their passengers, which could result in lower passenger usage and reduced revenue, which could in turn give certain airlines the right to terminate their contracts with us. In addition, airline dissatisfaction with us for any reason, including delays in obtaining certification for or installing our equipment or meeting our service level obligations, could negatively affect our ability to expand our service to additional airline partners or aircraft or lead to claims for damages, which may be material, or termination rights under existing contracts with our airline partners.

We are experiencing network capacity constraints in the United States and expect capacity demands to increase, and we may in the future experience capacity constraints internationally. If we are unable to successfully implement planned or future technology enhancements to increase our network capacity, or our airline partners do not agree to such enhancements, our ability to maintain sufficient network capacity and our business could be materially and adversely affected.

Providers of wireless connectivity services, including providers of in-flight connectivity services and particularly ATG providers, face certain limits on their ability to provide connectivity service, including escalating capacity constraints due to expanding consumption of wireless services and the increasing prevalence of higher bandwidth uses such as file downloads and streaming media content. The success of our CA business depends on our ability to provide adequate bandwidth to meet customer demands while in-flight. Our ATG network is inherently limited by the spectrum licensed and we are currently experiencing capacity constraints in the United States, particularly on certain flights where demand for our service is high and certain routes on which a number of aircraft are within range of the same cell site at one time, and we expect demand to continue to increase in the United States as penetration rates increase and our service becomes available on more aircraft. As part of our effort to alleviate such constraints, we are continuing to develop and implement our "technology roadmap," including developing our next generation air-to-ground technology, using unlicensed 2.4 GHz spectrum and the implementation of 2Ku. The roadmap is intended to increase our capacity demands through a number of improvements, including the use of ATG-4, 2Ku and planned implementation of the 2.4 GHz technology.

We started rolling-out our 2Ku service during 2016. As of December 31, 2016, 2Ku was installed on 94 CA aircraft operated by five airline partners and an additional 450 to 550 aircraft are expected to be installed during 2017. Our ability to meet our installation schedule is dependent on certain variables not within our control, including the availability of aircraft and the speed with which we are able to obtain STCs from the FAA and similar foreign regulatory agencies for our 2Ku equipment. If we are unable to continue to upgrade aircraft to 2Ku on a timely basis, our significant capacity constraints in the United States may continue. The successful and timely deployment of our 2Ku solution is subject to various risks and uncertainties as described in this Risk Factors section under the heading "- We may be unsuccessful or delayed in widely deploying and operating our 2Ku technology." In addition, there is no guarantee that the use of satellite technology, including through the use of 2Ku, will effectively alleviate current or future capacity constraints. Implementation of satellite solutions will depend on the availability of capacity from satellite service providers, regulatory approvals for aeronautical services using those satellites, the installation of satellite equipment on aircraft, and demand from our airline partners for new installations of satellite equipment. In the past, we experienced delays in obtaining FAA approvals for certain components of our Ku-band equipment. Further, we may experience unanticipated delays, complications, and expenses in implementing, integrating, and operating our systems using these new technologies. Any interruptions in operations during periods of implementation could adversely affect our ability to maintain satisfactory service levels, properly allocate resources and process billing information in a timely manner, which could result in customer dissatisfaction, reputational harm, termination of key contracts and delayed or reduced cash flow.

We are currently developing a next generation air-to-ground technology using unlicensed 2.4 GHz spectrum intended to further augment capacity in the contiguous United States. The inclusion of any such technology in our technology roadmap will require, among other things, that we integrate this unlicensed spectrum with our current ATG system and spectrum. There can be no assurances that we will be successful in developing and implementing the use of this spectrum, and our success developing and deploying this technology is subject to numerous risks and uncertainties. In addition, there is no guarantee that the deployment of such technology, alone or together with ATG-4 and 2Ku, will effectively alleviate future capacity constraints. We utilize a number of additional means to ensure our network meets passenger expectations, including the creation of effective price plans intended to calibrate usage while maximizing Gogo service revenue, and sophisticated bandwidth management tools, including through the use of bandwidth management software, provided under a third party contract, which, if terminated for any reason or expired and not renewed or replaced, could adversely impact our ability to meet increasing capacity demands.

We may in the future face capacity constraints internationally. There is no guarantee that our technology roadmap or the other means we utilize to manage our networks will be sufficient to alleviate capacity constraints in the United States or internationally. If we fail to meet our capacity demands, it could harm our reputation with customers, certain airline partners could terminate their contracts with us for a failure to meet our service level agreements or we could be unable to enter into new contracts with other airline partners, and our business prospects and results of operations may be materially adversely affected.

On February 26, 2015, the FCC reclassified certain mobile (and fixed) broadband Internet access services as Title II telecommunications services and adopted broad new net neutrality rules. Depending on the ultimate interpretation of these requirements, they could constrain our ability to manage our network and make it more difficult for us to meet capacity demands. For example, covered broadband providers may not block access to legal content, applications, services, or non-harmful devices or impair, degrade or unreasonably interfere with lawful Internet traffic on the basis of content, applications, services, or non-harmful devices. The rules contain an exception for "reasonable network management." We believe that our network management practices are reasonable under the FCC's rules, but regulators may disagree with our interpretations.

Our business is highly dependent on the airline industry, which is itself affected by factors beyond the airlines' control. The airline industry is highly competitive and sensitive to changing economic conditions.

Our business is directly affected by the number of passengers flying on commercial aircraft, the financial condition of the airlines and other economic factors. If consumer demand for air travel declines, including due to increased use of technology such as videoconferencing for business travelers, or the number of aircraft and flights shrinks due to, among other reasons, reductions in capacity by airlines, the number of passengers available to use the Gogo service will be reduced, which would have a material adverse effect on our business and results of operations. Unfavorable general economic conditions and other events that are beyond the airlines' control, including higher unemployment rates, higher interest rates, reduced stock prices, reduced consumer and business spending, outbreaks of communicable diseases and terrorist attacks or threats could have a material adverse effect on the airline industry. A general reduction or shift in discretionary spending could result in decreased demand for leisure and business travel and lead to a reduction in airline flights offered and the number of passengers flying. Consolidation within the airline industry could also adversely affect our relationships with our existing airline partners or lead to Gogo-equipped aircraft being taken out of service.

Further, unfavorable economic conditions could also limit airlines' ability to counteract increased fuel, labor or other costs though raised prices. Our airline partners operate in a highly competitive business market and, as a result, continue to face pressure on offerings and pricing. These unfavorable conditions and the competitiveness of the air travel industry could cause one or more of our airline partners to reduce expenditures on passenger services including deployment of the Gogo service or file for bankruptcy. If one or more of our airline partners were to file for bankruptcy, bankruptcy laws could give them rights to terminate their contracts with us, they could reduce their total fleet size and capacity and/or their total number of flights, and/or they could attempt to renegotiate the terms of their contracts with us including their revenue share percentage. Any of these events would have a material adverse effect on our business prospects, financial condition and results of operations.

# We may not be able to grow our business with current airline partners or successfully negotiate agreements with airlines to which we do not currently provide the Gogo service.

We are currently in negotiations or discussions with certain of our airline partners to provide our equipment and the Gogo service on additional aircraft in their fleets. We have no assurance that these efforts will be successful. We are also in discussions with other airlines to provide our equipment and the Gogo service to some or all of the aircraft flying North American or international routes. Negotiations with current and prospective airline partners require substantial time, effort and resources. The time required to reach a final agreement with an airline is unpredictable and may lead to variances in our operating results from quarter to quarter. We may ultimately fail in our negotiations and any such failure could harm our results of operations due to, among other things, a diversion of our focus and resources, actual costs and opportunity costs of pursuing these opportunities. In addition, the terms of any future agreements could be materially different and less favorable to us than the terms included in our existing agreements with our airline partners. Further, as the market for in-flight connectivity services matures, we expect commercial models and contract terms to continue to evolve, and we anticipate that third-party payors (including airlines) will generate an increasing portion of our revenue and that the portion of our revenue paid by passengers using our service will decline. We are unable to predict to what extent this shift will occur or the net effect of such shift on our revenue or results of operations. Our growth will also depend in part on our ability to reach agreements with OEMs, which will require us to comply with OEM specifications, which may be costly and time-consuming. To the extent that any negotiations with current or potential airline partners are unsuccessful, or any existing or future agreements reflecting evolving business models prove generally less favorable to us than expected or as compared to agreements under previously existing models, our growth prospects could be materially and adversely affected.

# Competition from a number of companies, as well as other market forces, could result in price reduction, reduced revenue and loss of market share and could harm our results of operations.

We face competition from satellite-based providers of broadband services that include in-flight connectivity and in-flight entertainment, including live television services. Competition from such providers has in the past and could have in the future an adverse effect on our ability to maintain or gain market share. While as of December 31, 2016 we provided the Gogo service to approximately 67% of all Internet-enabled North American commercial aircraft, the increased availability, development and adoption of satellite-based services by commercial airlines in North America and the rest of the world has and will continue to put additional pressure on our ability to maintain our market leading position, and we expect our market share to decline as our competitors install more aircraft with their systems in the U.S. and internationally. Five major North American airlines provide Internet connectivity service supplied by our competitors on all or a portion of their fleets. Some of our competitors are larger, more diversified corporations and have greater financial, marketing, production, and research and development resources. As a result, they may be better able to withstand the effects of pricing pressures or periodic economic downturns or may offer a broader product line to customers, including services we do not currently provide and/or may not provide in the future. In addition, while we are currently the only provider of ATG service in North America, existing or potential competitors are utilizing or may utilize licensed spectrum not currently designated for air-to-ground services or 2.4 GHz or other unlicensed spectrum to develop an ATG network. Internationally, one of our competitors is building a hybrid satellite and air-to-ground network to provide aviation customers broadband service over Europe. Another competitor is also developing a North American air-to-ground 4G network that may be available in 2017. We anticipate that factory installation capabilities for new aircraft will be increasingly important for commercial airlines and aircraft owners and operators. We are in the process of obtaining these capabilities in commercial aviation; however, some of our competitors are further along in the process and may be selected as in-flight connectivity providers based on this capability. Competition within the in-flight broadband Internet access and in-cabin digital entertainment markets may also subject us to pricing pressures in terms of both passenger retail pricing and our negotiations with airlines. Pricing passenger service at too high a level could adversely affect the rate of consumer acceptance for the Gogo service, while increased competition for airline partners and aircraft or other market forces could force us to lower our prices or lose market share and could adversely affect growth prospects and profitability. In addition, to the extent that competing in-flight connectivity or entertainment services offered by commercial airlines that are not our airline partners are available on more aircraft or offer improved quality or reliability as compared to the Gogo service, our business and results of operations could be adversely affected. Competition could increase our sales and marketing expenses and related customer acquisition costs. We may not have the financial resources, technical expertise or marketing and support capabilities to continue to compete successfully. A failure to effectively respond to established and new competitors could have a material adverse impact on our business and results of operations.

# Our CA-ROW business has a limited operating history, which may make it difficult to evaluate our current business and predict our future performance.

Our international expansion of our CA business began in the first quarter of 2014 and our first 2Ku installations took place in 2016. The limited operating history of our CA-ROW business may make it difficult to accurately evaluate the CA-ROW business and predict its future performance, and the growth of our CA-NA segment since inception is not necessarily indicative of potential future growth of CA-ROW. Any assessments of our current business and predictions that we or you make about our future success or viability may not be as accurate as they could be if we had a longer operating history. We have encountered and will continue to encounter risks and difficulties frequently experienced by growing companies in rapidly changing industries, and the size and nature of our market opportunity will change as we scale our business and increase deployment of the Gogo service. If we do not address any of the foregoing risks, our business could be harmed.

# We face limitations on our ability to grow our domestic operations which could harm our operating results and financial condition.

Our addressable market and our ability to expand domestically are inherently limited by various factors, including limitations on the number of U.S. commercial airlines with which we could partner, the number of planes in which our equipment can be installed, the passenger capacity within each plane and the ability of our network infrastructure or bandwidth to accommodate increasing capacity demands. Expansion is also limited by our ability to develop new technologies and successfully implement our technology roadmap on a timely and cost-effective basis, as well as our ability to mitigate network capacity constraints through, among other things, our access to licensed or unlicensed spectrum. Our growth may slow, or we may stop growing altogether, to the extent that we have exhausted all potential airline partners and as we approach installation on full fleets and maximum penetration rates on all flights. In such circumstances, to continue to grow our domestic revenue, we would have to rely on customer and airline partner adoption of currently available and new or developing services and additional offerings, including Gogo Vision, Gogo TV, various services made possible by our in-flight platform, and CAS. We cannot assure you that we will be able to profitably expand our existing domestic presence and, if we fail to do so, our business and results of operations could be materially adversely affected.

### We may be unsuccessful in expanding our operations internationally.

Our efforts to expand the services provided by our CA business to aircraft flying internationally began in the first quarter of 2014. Our ability to grow and achieve profitability in our international business involves various risks, including the need to invest significant resources in unfamiliar markets, the amount of which investment is subject to certain limitations under the indenture governing our senior secured notes and may be limited by economic and financial market conditions, and the possibility that we may not realize a return on our investments in the near future or at all. In addition, we have incurred and expect to continue to incur significant expenses before we generate any material revenue in these new markets. Under our agreements with providers of satellite capacity, we are obligated to purchase bandwidth for specified periods, as much as ten years in advance. If we are unable to generate sufficient passenger demand or airline partners to which we provide satellite service to their aircraft terminate their agreements with us for any reason during periods for which we have prepaid, we may incur satellite costs in excess of connectivity revenue generated through such satellites. Further, our expansion plans require significant management attention and resources and our CA business has limited experience in selling our solutions in international markets or in conforming to local cultures, standards or policies. Certain of our competitors, including current providers of satellite service, have more experience than we do in the international commercial airline connectivity and in-flight entertainment markets. As a result, such competitors may have pre-existing relationships with international airlines, may have obtained regulatory approvals in foreign jurisdictions or may already offer their equipment as standard, line-fit options on aircraft types, which may negatively affect our ability to enter into agreements with new international airline partners. Expansion of international marketing and advertising efforts could lead to a significant increase in our marketing and advertising expenses and would increase our customer acquisition costs. We may not be able to compete successfully in these international markets, and we may be unable to enter into agreements on favorable terms to provide connectivity services to international fleets of our existing North American airline partners and to new international airline partners. In addition, our ability to expand will be limited by the demand for in-flight broadband Internet access in international markets. Any failure to compete successfully in international markets could also negatively impact our reputation and domestic operations.

Our current and future international operations may fail to succeed due to risks inherent in foreign operations, including:

- legal and regulatory restrictions, including different communications, privacy, censorship, aerospace and liability standards, intellectual property laws and enforcement practices;
- changes in international regulatory requirements and tariffs;

- restrictions on the ability of U.S. companies to do business in foreign countries, including restrictions
  on foreign ownership of telecommunications providers and imposed by the U.S. Office of Foreign
  Assets Control ("OFAC");
- inability to find content or service providers to partner with on commercially reasonable terms, or at all;
- compliance with the Foreign Corrupt Practices Act, the (U.K.) Bribery Act 2010 and other similar corruption laws and regulations in the jurisdictions in which we operate and related risks;
- difficulties in staffing and managing foreign operations;
- · currency fluctuations; and
- potential adverse tax consequences.

As a result of these obstacles, we may find it difficult or prohibitively expensive to grow our business internationally or we may be unsuccessful in our attempt to do so, which could harm our future operating results and financial condition.

Our technology roadmap calls for the continued roll-out of Ku-band satellite service via our 2Ku technology. To the extent that our satellite service providers do not satisfy our or our airline partners' needs for any reason, our agreements with our satellite service providers do not yield the expected benefits, we fail to meet sales targets and other milestones set forth in the agreements or we otherwise fail to maintain a good working relationship with our satellite service providers, our current or future providers of satellite service may be unable to support our current international expansion plans. In addition, to the extent we enter into additional contracts to provide satellite-based connectivity service to airline partners, we will be required to secure additional satellite capacity, which may not be available on commercially reasonable terms, or at all. If we do not secure sufficient satellite capacity, we may be unable to meet the connectivity needs of passengers or the minimum service level requirements specified in our connectivity agreements, which could cause us to be in breach of our connectivity agreements and otherwise negatively affect our ability to successfully develop our international business.

### We may be unsuccessful or delayed in widely deploying and operating our 2Ku technology.

Our 2Ku solution, which offers additional bandwidth and improved speeds for our connectivity service, as compared to our ATG service, became available to commercial aircraft in 2016. As of December 31, 2016, we had approximately 1,400 aircraft awarded, but not yet installed, and there can be no assurance that we can meet our installation goals on our current timeline, due to, among other things, the failure of any 2Ku-related technology and equipment to perform as expected, problems arising in the manufacturing process, our reliance on single-source suppliers to provide certain necessary components and delays in obtaining or failures to obtain the required regulatory approvals for installation and operation of such equipment and the provision of service to passengers. In addition, other providers of satellite-based connectivity services currently have services available for commercial deployment that are intended to compete directly with 2Ku, and airlines may choose to adopt such a service over 2Ku. We currently have agreements with seven airlines to provide 2Ku to all or a portion of such airlines' fleets. The failure of 2Ku to perform as expected, or significant delays in our ability to install it, could result in material breaches of such agreements which could in turn result in termination of such agreements and liability to Gogo. In addition, five airlines have agreed or announced their intent to enter into definitive agreements with us. If 2Ku fails to perform as expected or its commercial availability is significantly delayed as compared to the timelines for which we have contracted, our business, business prospects and results of operations may be materially adversely affected. In addition, our failure to timely deliver 2Ku could have a material adverse effect on our ability to alleviate capacity constraints in our network. See also "-We are experiencing network capacity constraints in the United States and expect capacity demands to increase, and we may in the future experience capacity constraints internationally. If we are unable to successfully implement planned or future technology enhancements to increase our network capacity, or our airline partners do not agree to such enhancements, our ability to maintain sufficient network capacity and our business could be materially and adversely affected."

### We may be unsuccessful or delayed in developing and deploying our next generation ATG technology.

We expect our next generation ATG solution, which will offer additional bandwidth and improved speeds for our connectivity service as compared to existing ATG technologies, to become available to commercial aircraft in 2018. There can be no assurance that we can meet our development goals on our current timeline, due to, among other things, integrating the use of licensed and unlicensed spectrum, utilizing the unlicensed spectrum to perform as we expect, the failure of any ATG-related technology and equipment to perform as expected, problems arising in the manufacturing process, our reliance on single-source suppliers to provide certain necessary components and delays in obtaining or failures to obtain the required regulatory approvals for installation and operation of such equipment and the provision of service to passengers. If our next generation ATG fails to perform as expected or its commercial availability is significantly delayed as compared to the timelines for which we have contracted, our business, business prospects and results of operations may be materially adversely affected. In addition, our failure to timely deliver next generation ATG could have a material adverse effect on our ability to alleviate capacity constraints in our network. See also "-We are experiencing network capacity constraints in the United States and expect capacity demands to increase, and we may in the future experience capacity constraints internationally. If we are unable to successfully implement planned or future technology enhancements to increase our network capacity, or our airline partners do not agree to such enhancements, our ability to maintain sufficient network capacity and our business could be materially and adversely affected."

# We may be unsuccessful in generating or increasing revenue from Gogo Vision, our in-flight platform, Gogo TV, CAS and other services that we may offer in the future.

The future growth prospects for our CA business depend, in part, on airlines or passengers paying for Gogo Vision on-demand video services, Gogo TV and CAS. Our ability to generate revenue from such services and other services we may offer in the future depends on:

- growth of our customer base;
- rolling out our in-flight entertainment or such other services on more aircraft and with additional airline partners and increasing passenger adoption;
- our ability to customize and improve services in response to trends and customer interests; and
- our ability to develop and monetize CAS as described below under "—We may not be successful in our efforts to develop and monetize new products and services that are currently in development, including our CAS."

If we are unsuccessful in generating or increasing revenue from these services and our in-flight platform, our future growth prospects could be materially and adversely affected.

# We may not be successful in our efforts to develop and monetize new products and services that are currently in development, including CAS.

In order to continue to meet the evolving needs of our airline partners and customers, we must continue to develop new products and services that are responsive to those needs, including CAS. Our ability to realize the benefits of these services, including monetizing our services at a profitable price point, depends, in part, on the adoption and utilization of operational applications by airlines, other aircraft operators and other companies in the aviation industry such as aircraft equipment suppliers, and we cannot be certain that airlines, other aircraft operators and others in the aviation industry will adopt such offerings in the near term or at all. We also expect to continue to rely on third parties to develop and offer the operational applications to be used to gather and process data transmitted on our network between the aircraft and the ground, and we cannot be certain that such applications will be compatible with our network or onboard equipment or otherwise meet the needs of airlines or other aircraft operators. If we are not successful in our efforts to develop and monetize new products and services, including CAS, our future business prospects, financial condition and results of operations would be materially adversely affected.

# A future act or threat of terrorism, cyber-security attack or other events could result in a prohibition on the use of Wi-Fi enabled devices on aircraft.

A future act of terrorism or cyber-security attack on an aircraft, the threat of such acts or unrelated airline accidents could have an adverse effect on the airline industry. In the event of a terrorist attack or threat, cyber-security attack or threat or unrelated airline accident, the industry would likely experience significantly reduced passenger demand. The U.S. federal government or foreign governments could respond to such events by prohibiting the use of Wi-Fi enabled devices on aircraft, which would eliminate demand for our equipment and service. In addition, any association or perceived association between our equipment or service and the threat of terrorism, cyber-security attacks or accidents involving aircraft on which our equipment or service operates would likely have an adverse effect on demand for our equipment and service. Reduced demand for our products and services would adversely affect our business prospects, financial condition and results of operations.

Air traffic congestion at airports, air traffic control inefficiencies, weather conditions, such as hurricanes or blizzards, increased security measures, new travel-related taxes, the outbreak of disease or any other similar event could harm the airline industry.

Airlines are subject to cancellations or delays caused by factors beyond their control. Cancellations or delays due to weather conditions or natural disasters, air traffic control problems, including work stoppages or reduced government funding, breaches in security, outbreaks of communicable diseases or other factors could reduce the number of passengers on commercial flights and thereby reduce demand for the Gogo service and harm our business, results of operations and financial condition.

#### **Risks Related to Our BA Business**

Equipment sales to OEMs and after-market dealers account for a substantial portion of our revenue and earnings in the BA segment, and the loss of an OEM or dealer customer could materially and adversely affect our business and profitability.

Revenue from equipment sales on contracts with OEMs and after-market dealers accounted for more than 30% of revenue generated by our BA segment for each fiscal period presented in our consolidated financial statements included elsewhere in this Annual Report on Form 10-K. Almost all of our contracts with our OEM and dealer customers are terminable at will by either party and do not obligate our customers to purchase any of our equipment or services. If a key OEM or dealer terminates its relationship with us for any reason or our contract expires and is not renewed our business and profitability could be materially and adversely affected.

Our OEM customers may be materially adversely impacted by economic downturns and market disruptions. In anticipation of changing economic conditions, our customers may be more conservative in their production, which would result in fewer new aircraft available to receive our equipment. Further, unfavorable market conditions could cause one or more of our OEM customers to file for bankruptcy, which could have an adverse effect on our business prospects, financial condition and results of operations.

We operate in highly competitive markets with competitors who may have greater resources than we possess, which could reduce the volume of products we can sell and our operating margins.

Our BA equipment and service are sold in highly competitive markets. Some of our competitors are larger, more diversified corporations and have greater financial, marketing, production, and research and development resources. As a result, they may be better able to withstand pricing pressures and the effects of periodic economic downturns or may offer a broader product line to customers. Our operations and financial performance will be negatively impacted if our competitors:

- develop service that is superior to our service;
- develop service that is priced more competitively than our service;

- develop methods of more efficiently and effectively providing products and services; or
- adapt more quickly than we do to new technologies or evolving customer requirements.

We believe that the principal points of competition in our BA segment are technological capabilities, price, customer service, product development, conformity to customer specifications, quality of support after the sale and timeliness of delivery and installation. Maintaining and improving our competitive position will require continued investment in technology, manufacturing, engineering, quality standards, marketing and customer service and support. If we do not maintain sufficient resources to make these investments or are not successful in maintaining our competitive position, our operations and financial performance will suffer. In addition, competition may subject us to downward pricing pressures. Pricing at too high a level could adversely affect our ability to gain new customers and retain current customers, while increased competition could force us to lower our prices or lose market share and could adversely affect growth prospects and profitability. We may not have the financial resources, technical expertise or support capabilities to continue to compete successfully. A failure to respond to established and new competitors could have a material adverse impact on our business and results of operations.

# We generally do not have guaranteed future sales of our equipment. Further, we enter into fixed price contracts with some of our customers, so we take the risk for cost overruns.

Many of our OEM customers may terminate their contracts with us on short notice and, in many cases, our customers have not committed to buy any minimum quantity of our equipment. In addition, in certain cases, we must anticipate the future volume of orders based upon non-binding production schedules provided by OEMs, the historical purchasing patterns of customers, and informal discussions with customers as to their anticipated future requirements. Cancellations, reductions or delays by a customer or group of customers could have a material adverse effect on our business, financial condition and results of operations.

Furthermore, pursuant to many of our contracts with our OEM customers, we have agreed to deliver equipment and/or services, including equipment and services not yet in production, for a fixed price and, accordingly, take the risk of any cost overruns. Also, we may accept a fixed-price contract for equipment that we have not yet produced, and the fact that we have not yet produced the equipment increases the risk of cost overruns or delays in the completion of the design and manufacturing of the product.

### Many of the risks that could harm our CA business could also adversely affect our BA business.

For the years ended December 31, 2016, 2015 and 2014, sales of ATG equipment accounted for more than 60% of equipment revenue, and subscriptions for our Gogo Biz in-flight broadband Internet service accounted for more than 85% of service revenue for our BA segment. As such, many of the risks described above relating to our CA business and the Gogo service could also have a material adverse effect on our BA business, including expected capacity constraints on our network in the near-term and our ability to manage those constraints consistent with still-evolving interpretations of FCC rules, our ability to successfully develop and implement our next generation ATG technology, our ability to successfully implement technology enhancements to our network and our ability to successfully develop and deploy new products and services and generate revenue and profits from the sale of such products and services.

### Risks Related to Our Technology and Intellectual Property and Regulation

### Our CA-NA and BA businesses are dependent on our right to use spectrum exclusively licensed to us.

In June 2006, we purchased at FCC auction an exclusive ten-year, 3 MHz license for ATG spectrum, and in April 2013, as part of our acquisition of Airfone, we acquired an additional 1MHz ATG spectrum license. Our applications to renew our licenses were recently granted for additional ten-year terms without further payment. Any breach of the terms of our FCC licenses or FCC regulations including foreign ownership restrictions,

permitted uses of the spectrum and compliance with FAA regulations, could result in the revocation, suspension, cancellation or reduction in the term of our licenses or a refusal by the FCC to renew the licenses upon expiration. Further, in connection with an application to renew our licenses upon expiration, a competitor could file a petition opposing such renewal on anti-competitive or other grounds. Our ability to offer in-flight broadband Internet access through our ATG service currently depends on our ability to maintain rights to use the 3MHz ATG spectrum in the U.S. and our failure to do so would have a material adverse effect on our business and results of operations. Our ability to meet increasing capacity demands and expand our service offerings in the United States will depend in part upon our ability to successfully roll-out our plans for 2.4 GHz that we intend to use concurrently with the exclusive licenses.

While our spectrum license allows us to be the exclusive provider of ATG broadband connectivity in the United States, additional ATG spectrum may become available in the United States or internationally in the future.

While we are currently the only provider of ATG service in the United States, the FCC may in the future decide to auction additional spectrum for ATG use that is not currently designated for that purpose, or a competitor could develop technology or a business plan that allows it to cost effectively use spectrum not specifically reserved for ATG, but on which ATG use is not prohibited, to provide broadband connectivity.

The availability of additional spectrum in the marketplace that is available for ATG use may increase the possibility that we may face competition from one or more other ATG service providers in the future. For example, a competitor has announced that it is also developing an ATG network using the 2.4 GHz unlicensed spectrum. In addition, the FCC adopted an order establishing a more streamlined process for obtaining authority to provide satellite-based in-flight broadband service over the U.S., which could help facilitate the market entry of additional satellite-based competitors.

While our international competition currently consists of satellite-based interconnectivity services, discussions are occurring in the European Union and elsewhere regarding the use of spectrum for ATG service and one such competitor has started to build a European hybrid satellite and air-to-ground network to provide aviation customers connectivity service in Europe. As a result, we may face competition from such providers in such regions.

# We face specific risks related to the provision of telecommunications and data services by satellite, capacity providers and equipment suppliers.

We rely on third-party suppliers for services and equipment that we use to provide satellite telecommunication and connectivity services to commercial airline passengers and business aviation customers. We generated approximately 7%, 7%, and 7% of total BA segment revenue from subscriptions for voice and data services provided via satellite for the years ended December 31, 2016, 2015, and 2014, respectively. These voice and data services are provided in our BA segment through the resale on a non-exclusive basis of satellite-based telecommunications and data services owned and operated by third parties. We currently rely on two satellite partners to provide these services to our BA customers and have a number of satellite resellers as our competitors. Our agreements with our BA satellite partners are short-term in nature and one is subject to termination for convenience on 90 days' notice.

We also have agreements with several CA satellite partners to provide Ku-band satellite service on a non-exclusive basis. Service is typically provided through individual service orders for specified transponders, which range in duration from one to ten years. If any of these agreements were terminated or not renewed upon expiration, or if any of our satellite partners fail to obtain, or lose, necessary regulatory authorizations, we could face material delays or interruptions in the provision of service to our customers that rely on satellite service for connectivity or other voice and data services. If our agreements with any of our satellite partners were terminated or expired and were not renewed, we may not be able to find alternative satellite partners on terms that are acceptable to us, or at all. Certain of our agreements with satellite service providers commit us to purchase

bandwidth up to ten years in advance, which may exceed passenger demand and require us to incur unnecessary costs. See "—We may be unsuccessful in expanding our operations internationally."

We also have agreements with third parties to provide the equipment, including radomes, antennas and modems, necessary for us to supply our Ku-band satellite service and to develop and supply our next generation ATG service, and such agreements have multi-year terms followed by automatic renewals. If any of our supplier agreements, or any other agreement with equipment providers, were terminated for any such reason or expired and were not renewed, or the equipment was not provided for in a timely basis or of a reliable quality, we may not be able to find alternative equipment providers on terms that are acceptable to us, or at all, which could delay our ability to continue rolling out our service to airline partners and adversely impact our business and results of operations. In addition, we are required to obtain regulatory approvals for the provision of satellite service from certain foreign telecommunications regulatory bodies.

Our agreements with satellite providers and equipment suppliers may contain terms, such as those related to termination, pricing and service levels that are not consistent with our obligations under our connectivity agreements with airline partners that rely on such satellite service or equipment for connectivity. Such misalignment could cause us to be in breach of such connectivity agreements, and we may be unable to seek indemnification for such losses from our satellite service providers and equipment providers. Further, if our satellite partners or equipment providers were to increase the fees they charge us for resale of their services and we could not pass these increased costs on to our customers, it would increase our cost of service revenue and adversely impact our business and results of operations.

# If we fail to comply with the Communications Act and FCC regulations limiting ownership and voting of our capital stock by non-U.S. persons we could lose our FCC license.

Under the Communications Act and applicable FCC regulations, we are effectively restricted from having more than 25% of our capital stock owned or voted directly or indirectly by non-U.S. persons, including individuals and entities organized outside the United States or controlled by non-U.S. persons. We have established procedures to ascertain the nature and extent of our foreign ownership, and we believe that the indirect ownership of our equity by foreign persons or entities is below the 25% cap. However, as a publicly traded company we may not be able to determine with certainty the exact amount of our stock that is held by foreign persons or entities at any given time. A failure to comply with applicable restrictions on ownership by non-U.S. persons could result in an order to divest the offending ownership, fines, denial of license renewal and/or spectrum license revocation proceedings, any of which would likely have a material adverse effect on our results of operations.

# We could be adversely affected if we suffer service interruptions or delays, technology failures or damage to our equipment.

Our brand, reputation and ability to attract, retain and serve our customers depend upon the reliable performance of our in-flight website, network infrastructure, content delivery processes and payment systems. We have experienced interruptions in these systems in the past, including server failures that temporarily slowed down our website's performance and users' access to the Internet, or made our website inaccessible, and we may experience service interruptions, service delays or technology or systems failures in the future, which may be due to factors beyond our control. In the past, service failures or delays of our website have been remedied by bypassing the payment processing step for users and directly connecting such users to the Internet, leading to a loss of revenue for those sessions. If we experience frequent system or network failures, our reputation, brand and customer retention could be harmed, we may lose revenue to the extent that we have to bypass the payment processing step in order to maintain customers' connectivity to the Internet and our airline partners may have the right to terminate their contracts with us or pursue other remedies.

Our operations and services depend upon the extent to which our equipment and the equipment of our third-party network providers is protected against damage or interruption from fire, floods, earthquakes, tornados, power loss, solar flares, telecommunication failures, break-ins, acts of war or terrorism and similar events. The capacity, reliability and security of our network infrastructure are important to the operation of our business, which would suffer in the event of system disruptions or failures, such as computer hackings, cyber-attacks, computer viruses, worms or other destructive or disruptive software, process breakdowns, denial of service attacks or other malicious activities. Our networks and those of our third-party service providers may be vulnerable to these attacks and unauthorized access. In addition, the satellites upon which we rely for current and will rely for future services are and will be subject to significant operational risks while in orbit. These risks include malfunctions, which have occurred and may occur in the future as a result of various factors, such as satellite design and manufacturing defects, problems with the power or control systems of the satellites and general failures resulting from operating satellites in the harsh environment of space. Damage to our or third parties' networks could cause interruptions in the services that we provide. Such interruptions in our services could have a material adverse effect on service revenue, our reputation and our ability to attract or retain customers.

# We rely on third-party suppliers, some of which are single source suppliers, for certain critical components of our networks and operations.

We rely on third-party suppliers, some of which are single source suppliers, for a number of critical components of our ATG, next generation ATG, Ku and 2Ku networks and operations. For example, we purchase all of the aircards used for our ATG and ATG-4 equipment from a single provider, an affiliate of which we believe holds all of the patents for these components. If we are required to find one or more alternative suppliers for aircards or any other component for which we may rely on a single source supplier, we may not be able to contract with them on a timely basis, on commercially reasonable terms, or at all. Additionally, we purchase equipment for all of the ATG, including ATG-4, and next generation ATG base stations used at our cell-sites from a single provider. The base stations used at our cell-sites may require six to nine months lead time to produce and are highly integrated with other components of our network. If we needed to seek one or more alternate suppliers for our base stations, we estimate that it could take up to two years or more before any such alternate supplier could deliver a component that meets our network requirements. We also license all of our ATG-4 bandwidth optimization software from a single provider. If we are required to find one or more alternative suppliers for this or comparable software, we may not be able to contract with them on a timely basis, on commercially reasonable terms, or at all. Similarly, with respect to our next generation ATG technology, we rely on several single source providers to provide equipment, such as the antenna and modem. If we were required to for any reason, we estimate it could take up to two years to replace certain equipment suppliers. Delays in finding and contracting with alternative suppliers would significantly delay or suspend our ability to develop and deploy our next generation ATG service to airline partners and adversely impact our business, financial condition and results of operations.

With respect to our Ku satellite service, we rely on several single source providers to provide the equipment, including the radome, antenna and modem. With respect to 2Ku, we rely on single source suppliers to provide the antenna and both the current and next generation modem required to operate the system, and such providers own some of the associated intellectual property. If required for any reason (including termination of the contract by the supplier or termination by us as a result of the supplier's failure to perform as required), we estimate that it could take up to two years to replace certain equipment suppliers. Delays in finding and contracting with alternative suppliers would significantly delay or suspend our ability to provide our satellite service to airline partners and adversely impact our business, financial condition and results of operations.

With respect to our next generation ATG technology, we rely on several single source providers to provide the equipment, including the radome, antenna and modem. If we were required for any reason, we estimate it could take up to two years to replace certain equipment suppliers. Delays in finding and contracting with alternative suppliers would significantly delay or suspend our ability to develop and deploy our next generation ATG service to airline partners and adversely impact our business, financial condition and results of operations.

If we are required to find one or more alternative suppliers for any of these third-party provided components, we may not be able to contract with them on a timely basis, on commercially reasonable terms, or at all, which could adversely impact our ability to provide our service with our current or future airline partners. The lack of alternative suppliers could lead to higher prices and a failure by any of our single source providers to continue to produce the component, or to otherwise fulfill its obligations, could have a material adverse effect on our business, results of operations, and financial condition.

# Assertions by third parties of infringement, misappropriation or other violations by us of their intellectual property rights could result in significant costs and substantially harm our business and operating results.

In recent years, there has been significant litigation involving intellectual property rights in many technology-based industries, including the wireless communications industry. We have faced, are currently facing and may face from time to time in the future, allegations that we or a supplier or customer have violated the rights of third parties, including patent, trademark and other intellectual property rights.

If, with respect to any claim against us for violation of third party intellectual property rights, we are unable to prevail in the litigation or retain or obtain sufficient rights or develop non-infringing intellectual property or otherwise alter our business practices on a timely or cost-efficient basis, our business and competitive position may be materially adversely affected. Many companies, including our competitors, are devoting significant resources to obtaining patents that could potentially cover many aspects of our business. In addition, there are numerous patents that broadly claim means and methods of conducting business on the Internet. We have not exhaustively searched patents relevant to our technologies and business and therefore it is possible that we may be unknowingly infringing the patents of others.

Any infringement, misappropriation or related claims, whether or not meritorious, are time-consuming, divert technical and management personnel and are costly to resolve. As a result of any such dispute, we may have to develop non-infringing technology, pay damages, enter into royalty or licensing agreements, cease providing certain products or services, adjust our merchandizing or marketing and advertising activities or take other actions to resolve the claims. These actions, if required, may be costly or unavailable on terms acceptable to us. Pursuant to our contracts with our airline partners and certain BA customers, we have agreed to indemnify our airline partners and such customers against such claims and lawsuits, and, in some cases, our contracts do not cap our indemnification obligations, which, in addition to obligating us to pay defense costs, could result in significant indemnification obligations in the event of an adverse ruling in such an action. In addition, certain of our suppliers do not indemnify us for third party infringement or misappropriation claims arising from our use of supplier technology. As a result, we may be liable in the event of such claims. Any of these events could result in increases in operating expenses, limit our service offerings or result in a loss of business if we are unable to meet our indemnification obligations and our airline partners terminate or fail to renew their contracts.

# We or our technology suppliers may be unable to continue to innovate and provide products and services that are useful to consumers, airlines and other aircraft operators.

The market for our services is characterized by evolving technology, changes in customer, airline and aircraft operator needs and frequent new service and product introductions. Our future success will depend, in part, on our and our suppliers' ability to continue to enhance or develop new technology and services, including operational requirements of commercial airlines and business aircraft owners and operators and applications that meet customer needs and enhance operational efficiency on a timely and cost-effective basis. If we or our suppliers fail to adapt quickly enough to changing technology, customer requirements and/or industry standards, our service offerings may fail to meet customer, airline and aircraft operator needs or regulatory requirements. We may have to invest significant capital to keep pace with innovation and changing technology, which could negatively impact our results of operations.

Furthermore, the proliferation of new mobile devices, including tablets, and operating platforms poses challenges for our research and development efforts. If we are unable to create, or obtain rights to, simple solutions for a particular device or operating platform, we will be unable to effectively attract users of these devices or operating platforms and our business will be adversely affected.

### We may not be able to protect our intellectual property rights.

We regard our trademarks, service marks, copyrights, patents, trade secrets, proprietary technologies, domain names and similar intellectual property as important to our success. We rely on trademark, copyright and patent law, trade secret protection, and confidentiality agreements with our employees, vendors, airline partners, customers and others to protect our proprietary rights. We have sought and obtained patent protection for certain of our technologies in the United States and certain other countries. Many of the trademarks that we use (including marks we have applied to register) contain words or terms having a somewhat common usage, such as "Gogo" and "Gogo Vision" and, as a result, we may have difficulty registering them in certain jurisdictions. We do not own, for example, the domain www.gogo.com and we have not yet obtained registrations for our most important marks in all markets in which we may do business in the future, including China and India. If other companies have registered or have been using in commerce similar trademarks for services similar to ours in foreign jurisdictions, we may have difficulty in registering, or enforcing an exclusive right to use, our marks in those foreign jurisdictions.

There can be no assurance that the efforts we have taken to protect our proprietary rights will be sufficient or effective, that any pending or future patent and trademark applications will lead to issued patents and registered trademarks in all instances, that others will not develop or patent similar or superior technologies, products or services, or that our patents, trademarks and other intellectual property will not be challenged, invalidated, misappropriated or infringed by others. Furthermore, the intellectual property laws and enforcement practices of other countries in which our service is or may in the future be offered may not protect our products and intellectual property rights to the same extent as the laws of the United States. If we are unable to protect our intellectual property from unauthorized use, our ability to exploit our proprietary technology or our brand image may be harmed and, as a result, our business and results of operations may suffer.

### Our use of open source software could limit our ability to commercialize our technology.

Open source software is software made widely and freely available to the public in human-readable source code form, usually with liberal rights to modify and improve such software. Some open source licenses require as a condition of use that proprietary software that is combined with licensed open source software and distributed must be released to the public in source code form and under the terms of the open source license. Accordingly, depending on the manner in which such licenses were interpreted and applied, we could face restrictions on our ability to commercialize certain of our products and we could be required to (i) release the source code of certain of our proprietary software to the public, including competitors, if the open source software was linked to in a manner that would require such release of our proprietary software source code; (ii) seek licenses from third parties for replacement software; and/or (iii) re-engineer our software in order to continue offering our products. Such consequences could materially adversely affect our business.

The failure of our equipment or material defects or errors in our software may damage our reputation, result in claims against us that exceed our insurance coverage, thereby requiring us to pay significant damages, and impair our ability to sell our service.

Our products contain complex systems and components that could contain errors or defects, particularly when we incorporate new technology. If any of our products are defective, we could be required to redesign or recall those products or pay substantial damages or warranty claims. Such events could result in significant expenses, disrupt sales and affect our reputation and that of our products. If our on-board equipment has a malfunction, or there is a problem with the equipment installation, which damages an airplane or impairs its

on-board electronics or avionics, significant property loss and serious personal injury or death could result. Any such failure could expose us to substantial personal injury claims, product liability claims or costly repair obligations. In particular, the passenger jets operated by our airline partners are very costly to repair and therefore the damages in any product liability claims could be material. We carry aircraft and non-aircraft product liability insurance consistent with industry norms. However, this insurance coverage may not be sufficient to fully cover the payment of any claims. A product recall or a product liability claim not covered by insurance could have a material adverse effect on our business, financial condition and results of operations. Further, we indemnify most of our airline partners for losses due to third-party claims and in certain cases the causes for such losses may include failure of our products. Our business, financial condition and results of operations would also be materially adversely affected should we be required by the FAA or otherwise to cease providing the Gogo service, even on a temporary basis, as a result of a product malfunction or defect.

The software underlying our services is inherently complex and may contain material defects or errors, particularly when the software is first introduced or when new versions or enhancements are released. We have from time to time found defects or errors in our software, and defects or errors in our existing software may be detected in the future. Any defects or errors that cause interruptions to the availability of our services could result in:

- termination or failure to renew contracts by our airline partners;
- a reduction in sales or delay in market acceptance of our service;
- sales credits or refunds to our customers and airline partners;
- loss of existing customers and difficulty in attracting new customers;
- diversion of development resources;
- harm to our reputation and brand image;
- · increased insurance costs; and
- · claims for substantial damages.

The costs incurred in correcting any material defects or errors in our software may be substantial and could harm our results of operations.

Regulation by United States and foreign government agencies, including the FCC, which issued our exclusive ATG spectrum license, and the FAA, which regulates the civil aviation manufacturing and repair industries in the United States, may increase our costs of providing service or require us to change our services.

We are subject to various regulations, including those regulations promulgated by various federal, state and local regulatory agencies and legislative bodies and comparable agencies outside the United States where we may do business. The two U.S. government agencies that have primary regulatory authority over our operations are the FCC and the FAA.

The FCC regulates our use of the spectrum licensed to us and the licensing, construction, modification, operation, ownership, sale and interconnection of wireless telecommunications systems. Any breach of the terms of our ATG spectrum license or other licenses and authorizations obtained by us from time to time, or any violation of the Communications Act or the FCC's rules, could result in the revocation, suspension, cancellation or reduction in the term of a license or the imposition of fines. From time to time, the FCC may monitor or audit compliance with the Communications Act and the FCC's rules or with our licenses, including if a third party were to bring a claim of breach or noncompliance. In addition, the Communications Act, from which the FCC obtains its authority, may be amended in the future in a manner that could be adverse to us.

The commercial and private aviation industries, including civil aviation manufacturing and repair industries, are highly regulated in the United States by the FAA. FAA certification is required for all equipment we install on commercial aircraft and type certificated business aircraft, and certain of our operating activities require that we obtain FAA certification as a parts manufacturer. As discussed in more detail in the section entitled "Business—Licenses and Regulation—Federal Aviation Administration," FAA approvals required to operate our business include Supplemental Type Certificates (STCs) and Parts Manufacturing Authority (PMA). Obtaining STCs and PMAs is an expensive and time-consuming process that requires significant focus and resources. Any inability to obtain, delay in obtaining, or change in, needed FAA certifications, authorizations, or approvals, could have an adverse effect on our ability to meet our installation commitments, manufacture and sell parts for installation on aircraft, or expand our business and, could in rare circumstances result in our system being turned off or installed aircraft being grounded, which therefore, could materially adversely affect our growth prospects, business and operating results. The FAA closely regulates many of our operations. If we fail to comply with the FAA's many regulations and standards that apply to our activities, we could lose the FAA certifications, authorizations, or other approvals on which our manufacturing, installation, maintenance, preventive maintenance, and alteration capabilities are based. In addition, from time to time, the FAA or comparable foreign agencies adopt new regulations or amend existing regulations. The FAA could also change its policies regarding the delegation of inspection and certification responsibilities to private companies, which could adversely affect our business. To the extent that any such new regulations or amendments to existing regulations or policies apply to our activities, those new regulations or amendments to existing regulations generally increase our costs of compliance.

We are required to contribute a percentage of all revenue generated from interstate or international telecommunications services or interconnected VoIP services, which we offer in the BA segment to the federal Universal Service Fund, which subsidizes telecommunications services in areas that are expensive to serve. Broadband Internet access services are currently exempt from these USF contribution requirements, but the FCC is considering a number of reforms to its Universal Service Fund mechanisms that would expand the scope of that regulatory regime to such services. Such reforms may include, but are not limited to, imposing obligations on broadband Internet access service providers to contribute a percentage of the revenue earned from such services to the Universal Service Fund. To the extent the FCC adopts new contribution requirements that apply to broadband Internet providers or otherwise imposes additional contribution obligations, such requirements and obligations may increase the costs we incur to comply with such regulations.

As a broadband Internet provider, we must comply with the Communications Assistance for Law Enforcement Act of 1994, or CALEA, which requires communications carriers to ensure that their equipment, facilities and services can accommodate certain technical capabilities in executing authorized wiretapping and other electronic surveillance. Currently, our CALEA solution is fully deployed in our network. However, we could be subject to an enforcement action by the FCC or law enforcement agencies for any delays related to meeting, or if we fail to comply with, any current or future CALEA, or similarly mandated law enforcement related, obligations. Such enforcement actions could subject us to fines, cease and desist orders, or other penalties, all of which could adversely affect our business. Further, to the extent the FCC adopts additional capability requirements applicable to broadband Internet providers, its decision may increase the costs we incur to comply with such regulations.

In addition to these U.S. agencies, we are also subject to regulation by foreign government agencies that choose to assert jurisdiction over us as a result of the service we provide on aircraft that fly international routes, including Industry Canada, which issued our exclusive Canadian ATG subordinate spectrum license and regulates our use of the spectrum licensed to us. Adverse decisions or regulations of these U.S. and foreign regulatory bodies could negatively impact our operations and costs of doing business and could delay the roll-out of our services and have other adverse consequences for us. For example, a contract covering the international fleet of Delta Air Lines permits such airline to terminate its contract with us if we have not, by specified dates, obtained the FCC and foreign governmental regulatory approvals required to provide our Ku-band satellite service on aircraft flying such partner's international routes. Our ability to obtain certain regulatory approvals to

offer the Gogo service internationally may also be the responsibility of a third party, and, therefore, may be out of our control. We are unable to predict the scope, pace or financial impact of regulations and other policy changes that could be adopted by the various governmental entities that oversee portions of our business.

If government regulation of the Internet, including e-commerce or online video distribution changes, we may need to change the way we conduct our business to a manner that incurs greater operating expenses, which could harm our results of operations.

The current legal environment for Internet communications, products and services is uncertain and subject to statutory, regulatory or interpretive change. There may be additional regulatory uncertainty resulting from changes related to the November 2016 presidential election, such as new leadership in executive branch agencies and in the FCC. We cannot be certain that we, our vendors and media partners or our customers are currently in compliance with applicable regulatory or other legal requirements in the countries in which our service is used. Our failure, or the failure of our vendors and media partners, customers and others with whom we transact business to comply with existing or future legal or regulatory requirements could materially adversely affect our business, financial condition and results of operations. Regulators may disagree with our interpretations of existing laws or regulations or the applicability of existing laws or regulations to our business, and existing laws, regulations and interpretations may change in unexpected ways.

For example, our mobile wireless broadband Internet access services were previously classified as information services, and not as telecommunications services. Therefore, these services were not subject to FCC common carrier regulation. However, effective June 12, 2015, the FCC reclassified certain mobile (and fixed) broadband Internet access services as Title II telecommunications services (the "Open Internet Order"). The Open Internet Order also adopted broad new net neutrality rules. For example, covered broadband providers may not block access to lawful content, applications, services, or non-harmful devices. Broadband providers also may not impair, degrade or unreasonably interfere with lawful Internet traffic on the basis of content, applications, services, or non-harmful devices. In addition, broadband providers may not favor some lawful Internet traffic over other lawful traffic in exchange for consideration of any kind, and they may not prioritize the content and services of their affiliates. Other than for paid prioritization, the rules contain an exception for "reasonable network management." The Open Internet Order recognizes that whether a network management practice is reasonable varies according to the broadband technology involved and may provide more flexibility to implement network management practices in the context of Gogo's capacity-constrained air-to-ground and satellite broadband networks. The FCC could disagree with our interpretation of the various Open Internet Order requirements, including the extent to which the rules may apply to services offered by our BA segment.

The FCC order also imposes new disclosure requirements on broadband providers, including enhanced network performance reporting requirements. The FCC temporarily exempted smaller providers, such as Gogo, from its enhanced disclosure requirements. The exemption was recently extended until February 2022.

Other jurisdictions may adopt similar or different regulations that could affect our ability to use "network management" techniques. Likewise, the United States and the European Union, among other jurisdictions, have adopted proposals regarding data protection that could impose heightened restrictions on certain of Gogo's activities relating to the collection and use of data of end users. On October 27, 2016, the FCC adopted new privacy and data security rules for broadband Internet access service and voice providers. The new rules govern, among other things, the use and disclosure of customer proprietary network information and customer proprietary information, notice and consent practices, cybersecurity and data breach notifications. A portion of the privacy rules became effective on January 3, 2017. Other portions of the new rules are scheduled to become effective later this year. See also "Licenses and Regulations—Privacy and Data Security-Related Regulations." On April 27, 2016, the European Union adopted the General Data Protection Regulation ("GDPR"), scheduled to take effect on May 25, 2018, which may result in even more restrictive privacy-related requirements for entities outside the European Union that process personally identifiable information about European data subjects. Further, as we promote exclusive content and services and increase targeted advertising with our media partners to customers of the Gogo service, we may attract increased regulatory scrutiny.

We cannot be certain what positions regulators may take regarding our compliance with, or lack of compliance with, current and future legal and regulatory requirements or what positions regulators may take regarding any past or future actions we have taken or may take in any jurisdiction. Regulators may determine that we are not in compliance with legal and regulatory requirements, and impose penalties, or we may need to make changes to the Gogo platform, which could be costly and difficult. Any of these events would adversely affect our operating results and business.

# The satellites that we currently rely on or may rely on in the future have minimum design lives, but could fail or suffer reduced capacity before then.

The usefulness of the satellites upon which we currently rely and may rely on in the future is limited by each satellite's minimum design life. For example, the satellites through which we provide Ku-band service have minimum design lives ranging from 10 to 15 years. Our ability to offer in-flight connectivity outside North America and alleviate capacity constraints throughout our network depends on the continued operation of the satellites or any replacement satellites, each of which has a limited useful life. We can provide no assurance, however, as to the actual operational lives of those or future satellites, which may be shorter than their design lives, nor can we provide assurance that replacement satellites will be developed, authorized or successfully deployed.

In the event of a failure or loss of any of these satellites, our satellite service providers may relocate another satellite and use it as a replacement for the failed or lost satellite, which could have an adverse effect on our business, financial condition and results of operations. Such a relocation may require regulatory approval, including through, among other things, a showing that the replacement satellite would not cause additional interference compared to the failed or lost satellite. We cannot be certain that our satellite service providers could obtain such regulatory approval. In addition, we cannot guarantee that another satellite will be available for use as a replacement for a failed or lost satellite, or that such relocation can be accomplished without disrupting or otherwise adversely impacting our business.

### Satellites that are not yet in service are subject to construction and launch related risks.

Satellite construction and launch are subject to significant risks, including delays, launch failure and incorrect orbital placement. Launch failures result in significant delays in the deployment of satellites because of the need both to construct replacement satellites and to obtain other launch opportunities. Construction and launch delays, including any delay in the launch of satellites intended to replace one of the satellites we currently plan to utilize to provide Ku-band satellite service, could materially and adversely affect our ability to generate revenues.

### Risks Related to Our Business and Industry

### If our efforts to retain and attract customers are not successful, our revenue will be adversely affected.

We currently generate substantially all of our revenue from sales of services, some of which are on a subscription basis, and equipment. We must continue to retain existing subscribers and attract new and repeat customers. If we are unable to effectively retain existing subscribers and attract new and repeat customers, our business, financial condition and results of operations would be adversely affected.

Unreliable service levels, lack of sufficient capacity, uncompetitive pricing, lack of availability, security risk and lack of related features of our equipment and services are some of the factors that may adversely impact our ability to retain existing customers and partners and attract new and repeat customers. In our CA business, if consumers are able to satisfy their in-flight entertainment needs through activities other than broadband Internet access, at no or lower cost, they may not perceive value in our products and services. If our efforts to satisfy and retain our existing customers and subscribers are not successful, we may not be able to continue to attract new customers through word-of-mouth referrals. Any of these factors could cause our customer growth rate to fall, which would adversely impact our business, financial condition and results of operations. In addition, our contracts with airline partners from which we derive a majority of our CA business revenue allow for termination rights if the percentage of passengers using connectivity aboard their flights falls below certain thresholds.

The demand for in-flight broadband Internet access service may decrease or develop more slowly than we expect. We cannot predict with certainty the development of the U.S. or international in-flight broadband internet access market or the market acceptance for our products and services.

Our future success depends upon growing demand for in-flight broadband Internet access services, which is inherently uncertain. We have invested significant resources towards the roll-out of new service offerings, which represent a substantial part of our growth strategy. We face the risk that the U.S. and international markets for in-flight broadband Internet access services may decrease or develop more slowly or differently than we currently expect, or that our services, including our new offerings, may not achieve widespread market acceptance. We may be unable to market and sell our services successfully and cost-effectively to a sufficiently large number of customers.

Our business depends on the continued proliferation of Wi-Fi as a standard feature in mobile devices. The growth in demand for in-flight broadband Internet access services also depends in part on the continued and increased use of laptops, smartphones, tablet computers, and other Wi-Fi enabled devices and the rate of evolution of data-intensive applications on the mobile Internet. If Wi-Fi ceases to be a standard feature in mobile devices, if the rate of integration of Wi-Fi on mobile devices decreases or is slower than expected, or if the use of Wi-Fi enabled devices or development of related applications decreases or grows more slowly than anticipated, the market for our services may be substantially diminished.

# We have incurred operating losses in every quarter since we launched the Gogo service and may continue to incur quarterly operating losses, which could negatively affect our stock price.

We have incurred operating losses in every quarter since we launched the Gogo service in August 2008, and we may not be able to generate sufficient revenue in the future to generate operating income. We also expect our costs to increase in future periods, which could negatively affect our future operating results. We expect to continue to expend substantial financial and other resources on the continued roll-out of our technology roadmap and international expansion. The amount and timing of these costs are subject to numerous variables and such initiatives may require additional funding. Such variables include, for our technology roadmap, the availability of and costs associated with development and deployment of our 2.4 GHz technology, the timely and successful installation of ATG-4 and 2Ku on our partners' aircraft, and the timing of the roll-out of other technologies in the future, as well as costs incurred to develop and implement changes to ground and airborne software and hardware, costs associated with subsidizing our airline partners' equipment purchases, including upgrades to ATG-4 or other contractually obligated upgrades to our connectivity services and, with respect to satellite technologies, the cost of obtaining satellite capacity. With respect to our international expansion, such variables may include, in addition to costs associated with satellite technology as discussed in the preceding sentence, costs incurred to modify our portal for international deployment, costs related to sales and marketing activities and administrative support functions, equipment subsidies to airlines and additional legal and regulatory expenses associated with operating in the international commercial aviation market, costs incurred to set up branch offices, subsidiaries or other entities required to do business in certain countries, costs incurred to set up physical foreign offices and employment related costs for individuals located in those countries. In certain international market segments, we have relatively little operating experience and may not benefit from any first-to-market advantages. It is costly to establish, develop, and maintain international operations and promote our brand internationally. These investments may not result in increased revenue or growth in our business. If we fail to continue to grow our revenue and overall business, it could adversely affect our financial condition and results of operations.

# We may need additional financing to execute our business plan or new initiatives, which we may not be able to secure on acceptable terms, or at all.

As of December 31, 2016, our total cash, cash equivalents and short-term investments totaled \$455.8 million. However, we may require additional financing at some point in the future to fully execute our business plan, including our technology roadmap, international or domestic expansion plans or other changes. Our success may depend on our ability to raise such additional financing on reasonable terms and on a timely

basis. The amount and timing of our capital needs will depend in part on the extent of deployment of the Gogo service, the rate of customer penetration, the adoption of our service by airline partners and other factors set forth above that could adversely affect our business. In addition, we recently announced development of our next generation ATG network, and we may actively consider from time to time other significant technological, strategic and operational initiatives. In order to execute on any of these initiatives, we may require additional financing. Conditions in the economy and the financial markets may make it more difficult for us to obtain necessary additional capital or financing on acceptable terms, or at all. In addition, our ability to obtain additional financing for working capital, capital expenditures, acquisitions, debt service requirements or general corporate purposes is also limited by the indenture governing the Senior Secured Notes. As of December 31, 2016, after giving effect to the issuance of the \$65 million of additional notes in January 2017, Gogo Intermediate Holdings LLC and its subsidiaries would have been able to incur approximately \$9.0 million of additional indebtedness. See "—Risks Related to our Indebtedness—We may have future capital needs and may not be able to obtain additional financing to fund our capital needs on acceptable terms, or at all." If we cannot secure sufficient additional financing, we may be forced to forego strategic opportunities or delay, scale back or eliminate additional service deployment, operations and investments or employ internal cost savings measures.

# Increased costs and other demands associated with our growth could impact our ability to achieve profitability over the long term and could strain our personnel, technology and infrastructure resources.

We expect our costs to increase in future periods, which could negatively affect our future operating results. We continue to experience growth in our headcount and operations, which has placed significant demands on our management, administrative, technological, operational and financial infrastructure. Anticipated future growth, including growth related to the broadening of our service offerings, the roll-out of the technology roadmap and other network enhancements and international expansion of our CA business, will require the outlay of significant operating and capital expenditures and will continue to place strains on our personnel, technology and infrastructure. Our success will depend in part upon our ability to contain costs with respect to growth opportunities. To successfully manage the expected growth of our operations, on a timely and cost-effective basis we will need to continue to improve our operational, financial, technological and management controls and our reporting systems and procedures. In addition, as we continue to grow, we must effectively integrate, develop and motivate a large number of new employees, and we must maintain the beneficial aspects of our corporate culture. If we fail to successfully manage our growth, it could adversely affect our business, financial condition and results of operations.

# Changes in legislation, regulation and government policy as a result of the 2016 U.S. presidential and congressional elections may have a material adverse effect on our business in the future.

The recent presidential and congressional elections in the United States could result in significant changes in, and uncertainty with respect to, legislation, regulation and government policy. While it is not possible to predict whether and when any such changes will occur, changes at the local, state or federal level could significantly impact our business and the airline industry. Legislative and regulatory proposals discussed during the campaign and after the election could have a material impact on us, such as tax proposals that would generally make net interest expense on debt non-deductible to borrowers and increase the cost of importing (possibly including via lease) property. We are currently unable to predict whether reform discussions will meaningfully change existing legislative and regulatory environments relevant to our business and the airline industry. In addition, the regulatory and business environments in foreign countries in which we, our customers and our equipment suppliers operate, may be affected by actual or perceived changes in U.S. legislation, regulation and policy, and may in turn affect our business. To the extent that domestic or foreign changes resulting from the 2016 elections have a negative impact on us or our airline partners and equipment suppliers, including as a result of related uncertainty, these changes may materially and adversely impact our business, financial condition, results of operations and cash flows.

### Adverse economic conditions may have a material adverse effect on our business.

Macro-economic challenges are capable of creating volatile and unpredictable environments for doing business. We cannot predict the nature, extent, timing or likelihood of any economic slowdown or the strength or sustainability of any economic recovery, worldwide, in the United States or in the airline industry. For many travelers, air travel and spending on in-flight Internet access are discretionary purchases that they can eliminate in difficult economic times. Additionally, a weaker business environment may lead to a decrease in overall business travel, which has historically been an important contributor to our Gogo service revenue. In addition, continued deteriorating conditions may place market or political pressure on the customers that are served by our BA segment to cut costs including by reducing use of private aircraft.

These conditions may make it more difficult or less likely for customers to purchase our equipment and services. If economic conditions in the United States or globally deteriorate further or do not show improvement, we may experience material adverse effects to our business, cash flow and results of operations.

# Our operating results may fluctuate unpredictably and may cause us to fail to meet the expectations of investors, adversely affecting our stock price.

We operate in a highly dynamic industry and our future quarterly operating results may fluctuate significantly. Our revenue and operating results may vary from quarter to quarter due to many factors, many of which are not within our control. As a result, comparing our operating results on a period-to-period basis may not be meaningful. Further, it is difficult to accurately forecast our revenue, margin and operating results, and if we fail to match our expected results or the results expected by financial analysts or investors, the trading price of our common stock may be adversely affected.

In addition, due to generally lower demand for business travel during the summer months and holiday periods, and leisure and other travel at other times during the year, our quarterly results may not be indicative of results for the full year. Due to these and other factors, quarter-to-quarter comparisons of our historical operating results should not be relied upon as accurate indicators of our future performance.

Our possession and use of personal information and the use of credit cards by users of our services present risks and expenses that could harm our business. Unauthorized disclosure or manipulation of such data, whether through breach of our network security or otherwise, could expose us to costly litigation and damage our reputation.

In the ordinary course of our business, we collect, process and store sensitive data, including personal information of aircraft passengers and our employees and credit card information. The secure processing, maintenance and transmission of this information (and other sensitive data such as our proprietary business information and that of our customers and suppliers) is critical to our operations and business strategy. We depend on the security of our networks and, in part, on the security of the network infrastructures of our thirdparty telecommunications service providers, our customer support providers, our payment processors, and our other vendors. Despite our security measures, our information technology and infrastructure may be vulnerable to attacks by hackers or compromised due to employee error, malfeasance, hardware or software defects or other disruptions. Further, our in-cabin network operates as an open, unsecured Wi-Fi hotspot, and non-encrypted transmissions users send over this network may be vulnerable to access by other users on the same plane. Unauthorized use of our, or our third-party service providers', networks, computer systems and services could potentially jeopardize the security of confidential information, including personal information and credit card information of passengers using our service. Data security threats are constantly evolving and may be difficult to anticipate or to detect for long periods of time. There can be no assurance that any security measures we, or third parties, take will be effective in preventing these activities, given the constantly changing nature of the threats. Any such security incidents, unauthorized access or disclosure, or other loss of information could result in legal claims or proceedings and liability under our contracts with airline partners, which generally require us to indemnify the airline for passenger and other third party claims arising from data security breaches. In addition,

such incidents may disrupt our operations and the services we provide to customers, damage our reputation, and cause a loss of confidence in our products and services, all of which could have a material adverse effect on our business prospects, financial condition and results of operations.

Failure to protect confidential user data or to provide users with adequate notice of our privacy policies could also subject us to investigations and regulatory penalties imposed by United States federal and state regulatory agencies, non-U.S. regulatory agencies or courts. For example, the Federal Trade Commission ("FTC") could assert jurisdiction to impose penalties if it found our privacy policies or security measures to be inadequate under existing federal law. We could also be subject to certain state laws that impose data breach notification requirements, specific data security obligations, or other consumer privacy-related requirements. Our failure to comply with any of these rules or regulations could have an adverse effect on our business, financial condition and results of operations.

We also must comply with the FCC's privacy and data security rules. As noted above, on February 26, 2015, the FCC adopted an order which reclassified certain mobile (and fixed) broadband Internet access services as Title II telecommunications services. Following that order, the FCC conducted a separate rulemaking proceeding to update its CPNI rules, and on October 27, 2016, the FCC adopted new privacy and data security rules for certain broadband Internet access service providers and for voice providers, such as BA, which was already subject to the previous CPNI rules. The new rules govern, among other things, the use and disclosure of customer proprietary network information and customer proprietary information, notice and consent practices, cybersecurity, and data breach notifications. A portion of the privacy rules became effective on January 3, 2017. Other portions of the new rules are scheduled to become effective later this year. See also "Business—Licenses and Regulation—Privacy and Data Security-Related Regulations." Our failure to comply with the FCC's new privacy and data security rules could have an adverse effect on our business, financial condition and results of operations.

Other countries in which we may operate or from which our services may be offered, including those in the European Union, also have certain privacy and data security requirements that may apply to our business, either now or in the future. These countries' laws may in some cases be more stringent than the requirements in the United States. For example, European Union member countries have specific requirements relating to cross-border transfers of personal information to certain jurisdictions, including to the United States. In addition, some countries have stricter consumer notice and/or consent requirements relating to personal information collection, use or sharing. Moreover, international privacy and data security regulations may become more complex. On April 27, 2016, the European Union adopted the GDPR, scheduled to take effect on May 25, 2018, which may result in even more restrictive privacy-related requirements. Our failure to comply with other countries' privacy or data security-related laws, rules or regulations could also have an adverse effect on our business, financial condition and results of operations.

In addition, substantially all connectivity customers use credit cards to purchase our products and services. Problems with our or our vendors billing software could adversely affect our customer satisfaction and could cause one or more of the major credit card companies to disallow our continued use of their payment services. If our billing software fails to work properly and, as a result, we do not automatically charge our subscribers' credit cards on a timely basis or at all, our business, financial condition and results of operations could be adversely affected. In addition, we are required by the Payment Card Industry Security Standards Council, founded by major credit card companies, to comply with their data security standards to protect payment card information. New and revised standards may be imposed that may be difficult for us to meet and could increase our costs.

# We depend upon third parties to manufacture equipment components, provide services for our network and install our equipment.

We rely on third-party suppliers for equipment components and services that we use to provide our ATG and satellite telecommunication Wi-Fi services. The supply of third party components and services could be interrupted or halted by a termination of our relationships, a failure of quality control or other operational problems at such

suppliers or a significant decline in their financial condition. We also rely on a third party to provide the links between our data centers and our ground network. If we are not able to continue to engage suppliers with the capabilities or capacities required by our business, or if such suppliers fail to deliver quality products, parts, equipment and services on a timely basis consistent with our schedule, our business prospects, financial condition and results of operations could be adversely affected. See also "—We rely on third-party suppliers, some of which are single-source suppliers for certain critical components of our networks and operations."

In our CA business, installation and maintenance of our airborne ATG and satellite equipment is performed by employees of third-party service providers with whom we contract, and, in a number of cases, our airline partners have the right to elect to have their own employees or a third-party service provider of their choice install our equipment directly. In our BA segment, installation of our equipment is performed by the OEMs or dealers who purchase our equipment. Having third parties or our customers install or maintain our equipment reduces our control over the processes, including timeliness and quality. If there is an equipment failure, including due to problems with the installation or maintenance processes, our reputation and our relationships with our customers could be harmed. The passenger jets operated by our airline partners are very costly to repair and therefore damages in any claims related to faulty installation or maintenance could be material. Additionally, we may be forced to pay significant remediation costs and/or penalties to airlines to cover equipment failure due to installation or maintenance problems and we may not be able to be indemnified for a portion or all of these costs.

# We may fail to recruit, train and retain the highly skilled employees that are necessary to remain competitive and execute our growth strategy. The loss of one or more of our key personnel could harm our business.

Competition for key technical personnel in high-technology industries such as ours is intense. We believe that our future success depends in large part on our continued ability to hire, train, retain and leverage the skills of qualified engineers and other highly skilled personnel needed to maintain and grow our ATG and satellite networks and related technology and develop and successfully deploy our technology roadmap and new wireless telecommunications products and technology. We may not be as successful as our competitors at recruiting, training, retaining and utilizing these highly skilled personnel. In particular, we may have more difficulty attracting or retaining highly skilled personnel during periods of poor operating performance. Any failure to recruit, train and retain highly skilled employees could negatively impact our business and results of operations.

We depend on the continued service and performance of our key personnel, including Michael Small, our President and Chief Executive Officer. Such individuals have acquired specialized knowledge and skills with respect to Gogo and its operations. As a result, if any of our key personnel were to leave Gogo, we could face substantial difficulty in hiring qualified successors and could experience a loss of productivity while any such successor obtains the necessary training and expertise. We do not maintain key man insurance on any of our officers or key employees. In addition, much of our key technology and systems are custom-made for our business by our personnel. The loss of key personnel, including key members of our management team, could disrupt our operations and have an adverse effect on our ability to grow our business.

# Businesses or technologies we acquire could prove difficult to integrate, disrupt our ongoing business, dilute stockholder value or have an adverse effect on our results of operations.

As part of our business strategy, we may engage in acquisitions of businesses or technologies to augment our organic or internal growth. We do not have any meaningful experience with integrating and managing acquired businesses or assets. Acquisitions involve challenges and risks in negotiation, execution, valuation and integration. Moreover, we may not be able to find suitable acquisition opportunities on terms that are acceptable to us. Even if successfully negotiated, closed and integrated, certain acquisitions may not advance our business strategy, may fall short of expected return-on-investment targets or may fail. Any future acquisition could involve numerous risks, including:

• potential disruption of our ongoing business and distraction of management;

- difficulty integrating the operations and products of the acquired business;
- use of cash to fund the acquisition or for unanticipated expenses;
- · limited market experience in new businesses;
- exposure to unknown liabilities, including litigation against the companies we acquire;
- · additional costs due to differences in culture, geographical locations and duplication of key talent;
- delays associated with or resources being devoted to regulatory review and approval;
- acquisition-related accounting charges affecting our balance sheet and operations;
- difficulty integrating the financial results of the acquired business in our consolidated financial statements;
- controls in the acquired business;
- · potential impairment of goodwill;
- · dilution to our current stockholders from the issuance of equity securities; and
- potential loss of key employees or customers of the acquired company.

In the event we enter into any acquisition agreements, closing of the transactions could be delayed or prevented by regulatory approval requirements, including antitrust review, or other conditions. We may not be successful in addressing these risks or any other problems encountered in connection with any attempted acquisitions, and we could assume the economic risks of such failed or unsuccessful acquisitions.

### Difficulties in collecting accounts receivable could have a material effect on our results of operations.

The provision of equipment to our airline partners involves significant accounts receivable attributable to equipment receivables, which may not be settled on a timely basis. The large majority of our service revenue in our CA business is generated from credit card transactions and credit card accounts receivable are typically settled between one and three business days. Service and equipment revenues in our BA segment are directly billed to customers. Difficulties in enforcing contracts, collecting accounts receivables or longer payment cycles could lead to material fluctuations in our cash flows and could adversely affect our business, operating results and financial condition.

# Expenses or liabilities resulting from litigation could adversely affect our results of operations and financial condition.

From time to time, we may be subject to claims or litigation in the ordinary course of our business, including for example, claims related to employment matters and class action lawsuits. Our operations are characterized by the use of new technologies and services across multiple jurisdictions that implicate a number of statutory schemes and a range of rules and regulations that may be subject to broad or creative interpretation, which may subject us to litigation, including class action lawsuits, the outcome of which may be difficult to assess or quantify due to the potential ambiguity inherent in these regulatory schemes and/or the nascency of our technologies and services. Plaintiffs in these types of litigation may seek recovery of very large or indeterminate amounts, and the magnitude of the potential loss relating to such lawsuits may remain unknown for substantial periods of time. Any such claims or litigation may be time-consuming and costly, divert management resources, require us to change our products and services, or have other adverse effects on our business. Any of the foregoing could have a material adverse effect on our results of operations and could require us to pay significant monetary damages. In addition, costly and time consuming litigation could be necessary to enforce our existing contracts and, even if successful, could have an adverse effect on us. In addition, prolonged litigation against any airline partner, customer or supplier could have the effect of negatively impacting our reputation and goodwill with existing and potential airline partners, customers and suppliers.

#### Risks Related to Our Indebtedness

We and our subsidiaries have substantial debt and may incur substantial additional debt in the future, which could adversely affect our financial health, reduce our profitability, limit our ability to obtain financing in the future and pursue certain business opportunities and reduce the value of your investment.

As of December 31, 2016, we had total consolidated indebtedness of approximately \$886.9 million, including \$525.0 million outstanding of our 12.500% senior secured notes due 2022 (the "Senior Secured Notes") and \$361.9 million outstanding of our 3.75% convertible senior notes due 2020 (the "Convertible Notes"). On January 3, 2017, we issued an additional \$65 million of Senior Secured Notes (the "Additional Notes"), bringing our total Senior Secured Notes outstanding to \$590.0 million. Subject to certain limitations set forth in the indenture governing the Senior Secured Notes, we and our subsidiaries may incur additional debt in the future, which could increase the risks described below and lead to other risks. The amount of our debt or such other obligations could have important consequences for holders of our common stock, including, but not limited to:

- a substantial portion of our cash flow from operations must be dedicated to the payment of principal and interest on our indebtedness, thereby reducing the funds available to us for other purposes;
- our ability to obtain additional financing for working capital, capital expenditures, acquisitions, debt service requirements or general corporate purposes is limited, and our ability to satisfy our obligations with respect to our outstanding notes may be impaired in the future;
- we may be at a competitive disadvantage compared to our competitors with less debt or with comparable debt at more favorable interest rates and which, as a result, may be better positioned to withstand economic downturns;
- our ability to refinance indebtedness may be limited or the associated costs may increase;
- our ability to engage in acquisitions without raising additional equity or obtaining additional debt financing may be impaired in the future;
- it may be more difficult for us to satisfy our obligations to our creditors, resulting in possible defaults on and acceleration of such indebtedness;
- we may be more vulnerable to general adverse economic and industry conditions; and
- our flexibility to adjust to changing market conditions and our ability to withstand competitive
  pressures could be limited, or we may be prevented from making capital investments that are necessary
  or important to our operations in general, growth strategy and efforts to improve operating margins of
  our business units.

# We may have future capital needs and may not be able to obtain additional financing to fund our capital needs on acceptable terms, or at all.

We have from time to time evaluated, and we continue to evaluate, our potential capital needs in light of increasing demand for our services, limitations on bandwidth capacity and generally evolving technology in our industry. We may utilize one or more types of capital raising in order to fund any initiative in this regard, including the issuance of new equity securities and new debt securities, including debt securities convertible into our common stock. Since our IPO, we have obtained debt financing through our entry into the Amended and Restated Senior Term Facility, issuance of Convertible Notes and issuance of Senior Secured Notes. The market conditions and the macroeconomic conditions that affect the markets in which we operate could have a material adverse effect on our ability to secure financing on acceptable terms, if at all. We may be unable to secure additional financing on favorable terms or at all or our operating cash flow may be insufficient to satisfy our financial obligations under the indenture governing the Senior Secured Notes, the indenture governing the Convertible Notes and other indebtedness outstanding from time to time.

Our ability to obtain additional financing for working capital, capital expenditures, acquisitions, debt service requirements or general corporate purposes is limited by the indenture governing the Senior Secured Notes. As of December 31, 2016, and after giving effect to the issuance of the Additional Notes, the remaining permitted indebtedness for Gogo Intermediate Holdings LLC (a wholly owned subsidiary of Gogo Inc.) and its subsidiaries was approximately \$9.0 million. In the future, if our subsidiaries are in compliance with certain incurrence ratios set forth in the indenture governing the Senior Secured Notes, our subsidiaries may be able to incur additional indebtedness, which may increase the risks created by our current substantial indebtedness. The indenture governing the Senior Secured Notes does not prohibit Gogo Inc. from incurring additional indebtedness under any circumstances. However, the indenture governing the Senior Secured Notes limits the amount of cash that our subsidiaries may dividend, transfer or otherwise distribute to us, including cash distributed to us to pay interest on the Convertible Notes or to pay interest on indebtedness incurred, or dividends on preferred stock issued, by us to refinance, replace, renew or refund the Convertible Notes.

The terms of any additional financing may further limit our financial and operating flexibility. Our ability to satisfy our financial obligations will depend upon our future operating performance, the availability of credit generally, economic conditions and financial, business and other factors, many of which are beyond our control. Furthermore, if financing is not available when needed, or is not available on acceptable terms, we may be unable to take advantage of business opportunities or respond to competitive pressures, any of which could have a material adverse effect on our business, financial condition and results of operations. Even if we are able to obtain additional financing, we may be required to use the proceeds from any such financing to repay a portion of our outstanding debt.

If we raise additional funds through further issuances of equity, convertible debt securities or other securities convertible into equity, our existing stockholders could suffer significant dilution in their percentage ownership of our company. In addition, any new securities we issue could have rights, preferences and privileges senior to those of holders of our common stock, and we may grant holders of such securities rights with respect to the governance and operations of our business. If we are unable to obtain adequate financing or financing on terms satisfactory to us, if and when we require it, our ability to grow or support our business and to respond to business challenges could be significantly limited.

# Servicing our debt requires a significant amount of cash, and we may not have sufficient cash flow from our business to pay our substantial debt.

Our ability to make scheduled payments of the principal of, to pay interest on or to refinance our indebtedness depends on our future performance, which is subject to economic, financial, competitive and other factors beyond our control. Our business may not continue to generate cash flow from operations in the future sufficient to satisfy our obligations under our existing indebtedness and any future indebtedness we may incur and to make necessary capital expenditures. If we are unable to generate such cash flow, we may be required to adopt one or more alternatives, such as reducing or delaying investments or capital expenditures, selling assets, refinancing or obtaining additional equity capital on terms that may be onerous or highly dilutive. Our ability to refinance existing indebtedness or future indebtedness will depend on the capital markets and our financial condition at such time. We may not be able to engage in any of these activities on desirable terms or at all, and such alternative measures may not be successful and may not permit us to meet our scheduled debt service obligations, which could result in a default on existing indebtedness or future indebtedness.

We cannot make assurances that we will be able to refinance any of our indebtedness or obtain additional financing, particularly because of our high levels of debt and the debt incurrence restrictions imposed by the agreements and instruments governing our debt. In addition, we do not currently have a revolving credit facility under which we can borrow to make payments of the principal of, to pay interest on or to refinance any indebtedness. In the absence of such sources of capital, we could face substantial liquidity problems and might be required to dispose of material assets or operations to meet our debt service and other obligations. The indenture governing the Senior Secured Notes restricts our ability to dispose of assets and how we use the proceeds from any such dispositions. We cannot make assurances that we will be able to consummate those dispositions or, if we do,

what the timing of the dispositions will be or whether the proceeds that we realize will be adequate to meet our debt service obligations, including amounts under the Senior Secured Notes or the Convertible Notes, when due.

The agreements and instruments governing our debt contain restrictions and limitations that could significantly impact our ability to operate our business.

The indenture governing the Senior Secured Notes contains covenants that, among other things, limit the ability of our subsidiaries and, in certain circumstances, us to:

- incur additional debt:
- pay dividends, redeem stock or make other distributions;
- make certain investments;
- create liens:
- transfer or sell assets:
- merge or consolidate with other companies; and
- enter into certain transactions with our affiliates.

Our ability to comply with the covenants and restrictions contained in the indenture governing the Senior Secured Notes may be affected by economic, financial and industry conditions beyond our control. Our failure to comply with obligations under the agreements and instruments governing our indebtedness may result in an event of default under such agreements and instruments. We cannot be certain that we will have funds available to remedy these defaults. A default, if not cured or waived, may permit acceleration of our indebtedness. If our indebtedness is accelerated, we cannot be certain that we will have sufficient funds available to pay the accelerated indebtedness or have the ability to refinance the accelerated indebtedness on terms favorable to us or at all. All of these covenants and restrictions could affect our ability to operate our business, may limit our ability in the future to satisfy currently outstanding obligations and may limit our ability to take advantage of potential business opportunities as they arise.

The Senior Secured Notes are secured by substantially all of our consolidated assets. As a result of these security interests, such assets would only be available to satisfy claims of our general creditors or to holders of our equity securities if we were to become insolvent to the extent the value of such assets exceeded the amount of our secured indebtedness and other obligations. In addition, the existence of these security interests may adversely affect our financial flexibility.

The Senior Secured Notes are secured by a lien on substantially all of our assets. Accordingly, if an event of default were to occur under the indenture governing the Senior Secured Notes, the holders of the Senior Secured Notes would have a prior right to our assets, to the exclusion of our general creditors in the event of our bankruptcy, insolvency, liquidation, or reorganization. In that event, our assets would first be used to repay in full all indebtedness and other obligations under the indenture governing the Senior Secured Notes, resulting in all or a portion of our assets being unavailable to satisfy the claims of our unsecured indebtedness. Only after satisfying the claims of our unsecured creditors and our subsidiaries' unsecured creditors would any amount be available for our equity holders. The pledge of these assets and other restrictions may limit our flexibility in raising capital for other purposes. Because substantially all of our assets are pledged under these financing arrangements, our ability to incur additional secured indebtedness or to sell or dispose of assets to raise capital may be impaired, which could have an adverse effect on our financial flexibility.

We may not have sufficient cash flow or the ability to raise the funds necessary to settle conversions of the Convertible Notes, to repay the Convertible Notes at maturity or to purchase the Convertible Notes upon a fundamental change, and the indenture governing the Senior Secured Notes may limit our ability to pay interest, or dividends, on indebtedness, or preferred stock, issued to refinance the Convertible Notes.

Holders of the Convertible Notes will have the right to require us to purchase their Convertible Notes upon the occurrence of a fundamental change at a purchase price equal to 100% of the principal amount of the Convertible Notes to be purchased, plus accrued and unpaid interest, if any, to, but not including, the fundamental change purchase date. In addition, in the event the conditional conversion feature of the Convertible Notes is triggered, holders of the Convertible Notes will be entitled to convert the Convertible Notes at any time during specified periods at their option. Upon conversion of the Convertible Notes, we will be required to make cash payments in respect of the Convertible Notes being converted, unless we elect to deliver solely shares of our common stock to settle such conversion (other than cash in lieu of any fractional share). Moreover, we will be required to repay the Convertible Notes in cash at their maturity, unless earlier converted or repurchased. We may not have enough available cash or be able to obtain financing at the time we are required to make purchases of Convertible Notes surrendered therefor or repay the Convertible Notes at maturity or upon Convertible Notes being converted. The indenture governing the Senior Secured Notes also does not allow our subsidiaries to distribute cash to us for the payment of the principal of the Convertible Notes. In addition, the indenture governing the Senior Secured Notes limits the amount of cash our subsidiaries may distribute to us to pay interest on the Convertible Notes or any interest, or dividends, on indebtedness, or preferred stock, issued to refinance, replace, renew or refund the Convertible Notes, which may limit our ability to issue debt or other securities in an amount necessary to refinance the outstanding Convertible Notes or at rates that such distributions could support.

Our failure to purchase Convertible Notes required by the indenture governing the Convertible Notes or to pay cash payable upon future conversions of the Convertible Notes as required by the indenture governing the Convertible Notes would constitute a default under the indenture governing the Convertible Notes. A default under the indenture governing the Convertible Notes or the fundamental change itself could also lead to a default under the agreements and instruments governing our other indebtedness and the acceleration of amounts outstanding thereunder, including the indenture governing the Senior Secured Notes. If the repayment of the related indebtedness were to be accelerated after any applicable notice or grace periods, we may not have sufficient funds to repay the indebtedness and purchase the Convertible Notes or make cash payments upon conversions thereof. A default under the indenture governing the Convertible Notes could have serious consequences on our financial condition and results of operations and could cause us to become bankrupt or otherwise insolvent.

# The change of control repurchase feature of the Senior Secured Notes and the Convertible Notes may delay or prevent an otherwise beneficial attempt to take over our company.

The terms of the Senior Secured Notes and the Convertible Notes require our subsidiaries or us, respectively, to repurchase the Senior Secured Notes or the Convertible Notes, respectively, in the event of a change of control. A takeover of our company would trigger an option of the holders of the Senior Secured Notes and the Convertible Notes to require our subsidiaries or us, respectively, to repurchase the Senior Secured Notes or the Convertible Notes, respectively. This may have the effect of delaying or preventing a takeover of our company that would otherwise be beneficial to our stockholders.

# A downgrade, suspension or withdrawal of the rating assigned by a rating agency to us, our subsidiaries or our indebtedness, if any, could cause our cost of capital to increase.

The Senior Secured Notes have been rated by nationally recognized rating agencies and may in the future be rated by additional rating agencies. We cannot assure you that any rating assigned will remain for any given period of time or that a rating will not be lowered or withdrawn entirely by a rating agency if, in that rating agency's judgment, circumstances relating to the basis of the rating, such as adverse changes in our business, so warrant. Any future lowering of ratings may make it more difficult or more expensive for us to obtain additional debt financing.

#### **Risks Relating to Our Common Stock**

### The price of our common stock may be volatile and the value of your investment could decline.

The trading price of our common stock has been volatile since our IPO, which occurred on June 21, 2013 and in which shares of common stock were sold at a price of \$17.00 per share. From the IPO date through February 6, 2017, the price of our common stock has ranged from a closing low of \$7.86 per share to a closing high of \$34.34 per share. In addition to the factors discussed in this Annual Report, the trading price of our common stock may fluctuate widely in response to various factors, many of which are beyond our control. They include:

- airline industry or general market conditions;
- domestic and international economic factors unrelated to our performance;
- changes in technology or customer usage of Wi-Fi and Internet broadband services;
- any inability to timely and efficiently roll out 2Ku, 2.4 GHz or other components of our technology roadmap;
- any inability to sufficiently execute our international growth strategy;
- any inability to obtain satellite service on commercially reasonable terms or at all, currently and in the future;
- new regulatory pronouncements and changes in regulatory guidelines;
- actual or anticipated fluctuations in our quarterly operating results;
- changes in or failure to meet publicly disclosed expectations as to our future financial performance;
- changes in securities analysts' estimates of our financial performance or lack of research and reports by industry analysts;
- action by institutional stockholders or other large stockholders, including future sales;
- speculation in the press or investment community;
- · investor perception of us and our industry;
- changes in market valuations or earnings of similar companies;
- announcements by us or our competitors of significant products, contracts, acquisitions or strategic partnerships;
- developments or disputes concerning patents or proprietary rights, including increases or decreases in litigation expenses associated with intellectual property lawsuits we may initiate, or in which we may be named as defendants;
- failure to complete significant sales;
- any future sales of our common stock or other securities;
- renewal of our FCC license and our ability to obtain additional spectrum; and
- additions or departures of key personnel.

In addition, the stock markets have experienced extreme price and volume fluctuations in recent years that have affected and continue to affect the market prices of equity securities of many technology companies. Stock prices of many such companies have fluctuated in a manner unrelated or disproportionate to the operating performance of those companies. These broad market fluctuations may adversely affect the trading price of our common stock. In the past, following periods of volatility in the market price of a company's securities, class action litigation has often been instituted against such company. Any litigation of this type brought against us could result in substantial costs and a diversion of our management's attention and resources, which would harm our business, operating results and financial condition.

Adjustments by holders of the Convertible Notes of their hedging positions in our common stock and the forward stock purchase transactions may have a negative effect on the market price of our common stock.

Any buying or selling of shares of our common stock by holders of the Convertible Notes to establish or adjust hedged positions with respect to our common stock may affect the market price of our common stock. In addition, the existence of the Convertible Notes may also encourage short selling by market participants because any conversions of the Convertible Notes could depress our common stock price. The price of our common stock could be affected by possible sales of our common stock by investors who view the Convertible Notes as a more attractive means of equity participation in us and by hedging or arbitrage trading activity which we expect to occur involving our common stock.

In addition, in connection with the issuance of the Convertible Notes, we entered into privately negotiated prepaid forward stock purchase transactions (the "Forward Transactions") with certain financial institutions (the "Forward Counterparties"). The Forward Transactions are generally expected to facilitate privately negotiated derivative transactions, including swaps, between the Forward Counterparties and investors in the Convertible Notes relating to shares of our common stock by which investors in the Convertible Notes will establish short positions relating to shares of our common stock and otherwise hedge their investments in the Convertible Notes. The maturity date of such Forward Transactions is on or around March 1, 2020, the maturity date for the Convertible Notes. Such investors may enter into other transactions in connection with or in addition to such derivative transactions, including the purchase or sale of shares of our common stock. As a result of the existence of the Forward Transactions, such derivative transactions and any related market activity could cause more purchases or sales of shares of our common stock over the term of the Forward Transactions than there otherwise would have been had we not entered into the Forward Transactions. Such purchases or sales could potentially increase (or reduce the size of any decrease in) or decrease (or reduce the size of any increase in) the market price of our common stock.

Additionally, the Forward Counterparties (or their respective affiliates) are likely to modify their hedge positions in respect of the Forward Transactions by entering into or unwinding various derivative transactions with respect to shares of our common stock and/or by purchasing the shares of common stock or other securities of ours in secondary market transactions prior to maturity of the Forward Transactions (and are likely to do so during the final valuation period under the Forward Transactions and on or around any election by a Forward Counterparty to settle all of a portion of its Forward Transaction early). The effect, if any, of any of these transactions and activities on the market price of our common stock will depend in part on market conditions and cannot be ascertained at this time, but any of these activities could adversely affect the value of our common stock.

The Forward Counterparties are financial institutions, and we will be subject to the risk that any or all of them might default under the Forward Transactions. Our exposure to the credit risk of the Forward Counterparties is not secured by any collateral. Global economic conditions have in the recent past resulted in, and may again result in, the actual or perceived failure or financial difficulties of many financial institutions. If a Forward Counterparty becomes subject to insolvency proceedings, we will become an unsecured creditor in those proceedings, with a claim equal to our exposure at that time under our transactions with that Forward Counterparty. Our exposure will depend on many factors, but, generally, an increase in our exposure will be correlated to an increase in the market price of our common stock. In addition, upon a default by a Forward Counterparty, we may suffer more dilution than we currently anticipate with respect to our common stock.

Conversion of the Convertible Notes may dilute the ownership interest of existing stockholders or may otherwise depress the price of our common stock.

The conversion of some or all of the Convertible Notes may dilute the ownership interests of existing stockholders to the extent we deliver shares upon conversion of any of the Convertible Notes. Any sales in the

public market of the common stock issuable upon such conversion could adversely affect prevailing market prices of our common stock. In addition, the existence of the Convertible Notes may encourage short selling by market participants because the conversion of the Convertible Notes could be used to satisfy short positions. In addition, the anticipated conversion of the Convertible Notes into shares of our common stock could depress the price of our common stock.

#### Future stock issuances could cause substantial dilution and a decline in our stock price.

We may issue additional shares of common stock or other equity or debt securities convertible into common stock in connection with a financing, acquisition, litigation, settlement or employee arrangement or otherwise. In addition, a substantial number of shares of our common stock are reserved for issuance upon the exercise of stock options and other equity incentives and the conversion of Convertible Notes. We may reserve additional shares of our common stock for issuance upon the exercise of stock options or other similar forms of equity incentives. We cannot predict the size of future issuances or the effect, if any, that they may have on the market price for our common stock. Any of these issuances could result in substantial dilution to our existing stockholders and could cause the trading price of our common stock to decline.

# If securities or industry analysts do not publish research or publish misleading or unfavorable research about our business, our stock price and trading volume could decline.

The trading market for our common stock depends in part on the research and reports that securities or industry analysts publish about us or our business. If securities or industry analysts covering Gogo downgrade our stock or publish misleading or unfavorable research about our business, our stock price would likely decline. If one or more of these analysts ceases coverage of our company or fails to publish reports on us regularly, demand for our stock could decrease, which could cause our stock price or trading volume to decline.

Our significant stockholder could exert influence over our company, and if the ownership of our common stock continues to be concentrated, or becomes more concentrated in the future, it could prevent our other stockholders from influencing significant corporate decisions.

As of December 31, 2016, Oakleigh Thorne and the entities affiliated with Mr. Thorne ("Thorne Entities") beneficially own approximately 29% of the outstanding shares of our common stock. As a result, the Thorne Entities will be able to exercise influence over all matters requiring stockholder approval for the foreseeable future, including approval of significant corporate transactions, which may reduce the market price of our common stock.

The interests of the Thorne Entities may conflict with the interests of our other stockholders. Our corporate governance guidelines address potential conflicts between a director's interests and our interests, and our code of business conduct, among other things, requires our employees and directors to avoid actions or relationships that might conflict or appear to conflict with their job responsibilities or our interests and to disclose their outside activities, financial interests or relationships that may present a possible conflict of interest or the appearance of a conflict to management or corporate counsel. These corporate governance guidelines and code of business ethics do not, by themselves, prohibit transactions with the Thorne Entities.

Fulfilling our obligations incident to being a public company, including with respect to the requirements of and related rules under the Sarbanes-Oxley Act of 2002 ("Sarbanes-Oxley"), is expensive and time-consuming, and any delays or difficulties in satisfying these obligations could have a material adverse effect on our future results of operations and our stock price.

As a public company, Sarbanes-Oxley and the related rules and regulations of the SEC, as well as Nasdaq rules, require us to implement various corporate governance practices and adhere to a variety of reporting requirements and complex accounting rules. Compliance with these public company obligations requires us to

devote significant time and resources and places significant additional demands on our finance and accounting staff and on our financial accounting and information systems. We have hired additional accounting and financial staff with appropriate public company reporting experience and technical accounting knowledge. Other expenses associated with being a public company include increased auditing, accounting and legal fees and expenses, investor relations expenses, increased directors' fees and director and officer liability insurance costs, registrar and transfer agent fees and listing fees, as well as other expenses.

We are required under Sarbanes-Oxley to document and test the effectiveness of our internal control over financial reporting, and our independent registered public accounting firm is required to provide an attestation report on the effectiveness of our internal control over financial reporting. In addition, we are required under the Exchange Act, to maintain disclosure controls and procedures and internal control over financial reporting. Any failure to maintain effective controls or implement required new or improved controls, or difficulties encountered in their implementation or the implementation of our financial system upgrade, could harm our operating results or cause us to fail to meet our reporting obligations. If we are unable to conclude that we have effective internal control over financial reporting, or if our independent registered public accounting firm is unable to provide us with an unqualified report regarding the effectiveness of our internal control over financial reporting, investors could lose confidence in the reliability of our financial statements. This could result in a decrease in the value of our common stock. Failure to comply with Sarbanes-Oxley could potentially subject us to sanctions or investigations by the SEC, Nasdaq, or other regulatory authorities.

Anti-takeover provisions in our charter documents and Delaware law, and certain provisions in our existing and any future credit facility could discourage, delay or prevent a change in control of our company and may affect the trading price of our common stock.

Our amended and restated certificate of incorporation and amended and restated bylaws include a number of provisions that may discourage, delay or prevent a change in our management or control over us that stockholders may consider favorable. These provisions include:

- Authorization of the issuance of "blank check" preferred stock that could be issued by our Board of Directors to thwart a takeover attempt;
- Establishment of a classified Board of Directors, as a result of which our board will be divided into three classes, with each class serving for staggered three-year terms, which prevents stockholders from electing an entirely new Board of Directors at an annual meeting;
- A requirement that directors only be removed from office for cause and only upon a supermajority stockholder vote;
- A provision that vacancies on the Board of Directors, including newly-created directorships, may be filled only by a majority vote of directors then in office;
- A limitation on who may call special meetings of stockholders;
- A prohibition on stockholder action by written consent, thereby requiring all actions to be taken at a meeting of the stockholders; and
- A requirement of supermajority stockholder voting to effect certain amendments to our amended and restated certificate of incorporation and amended and restated bylaws.

These provisions may prevent our stockholders from receiving the benefit from any premium to the market price of our common stock offered by a bidder in a takeover context. Even in the absence of a takeover attempt, the existence of these provisions may adversely affect the prevailing market price of our common stock if the provisions are viewed as discouraging takeover attempts in the future.

Our amended and restated certificate of incorporation and amended and restated bylaws may also make it difficult for stockholders to replace or remove our management. These provisions may facilitate management entrenchment that may delay, deter, render more difficult or prevent a change in our control, which may not be in the best interests of our stockholders.

### The fundamental change repurchase feature of the Convertible Notes may delay or prevent an otherwise beneficial attempt to take over our company.

The terms of the Convertible Notes require us to repurchase the Convertible Notes in the event of a fundamental change. A takeover of our company would trigger an option of the holders of the Convertible Notes to require us to repurchase the Convertible Notes. This may have the effect of delaying or preventing a takeover of our company that would otherwise be beneficial to our stockholders.

### We do not intend to pay dividends on our common stock for the foreseeable future.

We have never declared or paid cash dividends on our capital stock. We currently intend to retain any future earnings to finance the operation and growth of our business, and we do not expect to declare and pay any dividends on our common stock for the foreseeable future. In addition, our operations are conducted almost entirely through our subsidiaries. Accordingly, to the extent that we determine to pay dividends on our common stock, none of our subsidiaries will be obligated to make funds available to us for the payment of dividends. Furthermore, Delaware law may impose requirements that may restrict our ability to pay dividends to holders of our common stock.

# Our corporate charter and bylaws include provisions limiting ownership by non-U.S. citizens, including the power of our board of directors to redeem shares of our common stock from non-U.S. citizens.

The Communications Act and FCC regulations impose restrictions on foreign ownership of FCC licensees, as described in the above risk factor, "—If we fail to comply with the Communications Act and FCC regulations limiting ownership and voting of our capital stock by non-U.S. persons we could lose our FCC license." Our corporate charter and bylaws include provisions that permit our board of directors to take certain actions in order to comply with FCC regulations regarding foreign ownership, including but not limited to, a right to redeem shares of common stock from non-U.S. citizens at prices at or below fair market value. Non-U.S. citizens should consider carefully the redemption provisions in our certificate of incorporation prior to investing in our common stock.

These restrictions may also decrease the liquidity and value of our stock by reducing the pool of potential investors in our company and making the acquisition of control of us by third parties more difficult. In addition, these restrictions could adversely affect our ability to attract equity financing or consummate an acquisition of a foreign entity using shares of our capital stock.

# Regulations related to conflict minerals force us to incur additional expenses and may make our supply chain more complex.

We are subject to the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010, which requires us to diligence, disclose and report whether or not our products contain certain minerals and metals, known as "conflict minerals." These requirements could adversely affect the sourcing, availability and pricing of certain of the materials used in the manufacture of components in our products and equipment. In addition, we have and will incur additional costs to comply with the disclosure requirements, including costs related to conducting diligence procedures to determine the sources of conflict minerals that may be used or necessary to the production of our products and, if applicable, potential changes to products, processes or sources of supply as a consequence of such verification activities.

#### **Item 1B. Unresolved Staff Comments**

None.

### Item 2. Properties

Currently, we lease approximately 259,207 square feet for our CA business and corporate headquarters in Chicago, Illinois, under a lease agreement that expires in 2028. We also lease approximately 25,888 square feet for our CA manufacturing facility in Bensenville, Illinois under a lease agreement that expires on August 31, 2019. Additionally, our lease for our BA business in Broomfield, Colorado is for 111,877 square feet and expires on August 31, 2026. We believe our facilities will be adequate for the foreseeable future.

### Item 3. Legal Proceedings

Salameno Litigation—On January 29, 2016, Charles Salameno, Maria-Angela Sanzone and John Jensen filed suit against us in the United States District Court for the Eastern District of New York, on behalf of a putative class of national purchasers and a subclass of New York purchasers of our connectivity service, alleging that we violated New York and other consumer protection laws, as well as unjust enrichment, fraud and breach of contract arising from alleged false statements in our marketing materials and alleged data security issues arising from our network design and certain network practices. The suit sought unspecified damages. On May 23, 2016, we filed motions to compel arbitration and dismiss the suit, moving in the alternative to transfer venue and/or dismiss the suit for failure to state a claim. The Court held a hearing on June 30, 2016 where we argued the motions to dismiss and on July 7, 2016 the Court issued its opinion granting our motion to compel arbitration. On August 1, 2016, the Plaintiffs filed a motion asking the Court to reconsider its decision to compel arbitration. On September 15, 2016, the Court denied Plaintiffs' motion for reconsideration. On October 14, 2016, Plaintiffs filed a Notice of Appeal with the U.S. Court of Appeals for the Second Circuit. Plaintiffs' withdrew their appeal with prejudice on November 4, 2016, concluding the Salameno class action. Plaintiffs' have the right to pursue their claims individually in arbitration.

In addition to the matters discussed above, from time to time we may become involved in legal proceedings arising in the ordinary course of our business. We cannot predict with certainty the outcome of any litigation or the potential for future litigation. Regardless of the outcome of any particular litigation and the merits of any particular claim, litigation can have a material adverse impact on our company due to, among other reasons, any injunctive relief granted, which could inhibit our ability to operate our business, amounts paid as damages or in settlement of any such matter, diversion of management resources and defense costs.

### Item 4. Mine Safety Disclosures

Not applicable.

#### Part II

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

### **Market Information for Common Stock**

Our common stock has been listed on the NASDAQ Global Select Market ("NASDAQ") under the symbol "GOGO" since June 21, 2013. Prior to that time, there was no public market for our common stock. The following table sets forth for the indicated periods the high and low intra-day sales prices per share for our common stock on the NASDAQ.

	High	Low
Year ended December 31, 2016		
First quarter	\$17.01	\$ 9.62
Second quarter	\$11.70	\$ 7.86
Third quarter	\$12.89	\$ 8.26
Fourth quarter	\$11.27	\$ 8.78
Year ended December 31, 2015		
First quarter	\$22.00	\$13.26
Second quarter	\$23.20	\$18.40
Third quarter	\$22.17	\$12.50
Fourth quarter	\$19.61	\$13.94

#### Holders of Record

As of February 3, 2017, there were 114 stockholders of record of our common stock, and the closing price of our common stock was \$8.93 per share as reported on the NASDAQ. Because many of our shares of common stock are held by brokers and other institutions on behalf of stockholders, we are unable to estimate the total number of stockholders represented by these record holders.

### **Dividend Policy**

We have never declared or paid any cash dividend on our common stock. We intend to retain any future earnings and do not expect to pay dividends in the foreseeable future. In addition, our credit facilities contain restrictions on our ability to pay dividends. See "Management's Discussion and Analysis of Financial Condition and Results of Operations—Liquidity and Capital Resources—Covenants" and Note 6, "Long-Term Debt and Other Liabilities" to our consolidated financial statements for the year ended December 31, 2016 included elsewhere in this Annual Report on Form 10-K.

### **Repurchases of Equity Securities**

None.

#### **Recent Sale of Unregistered Securities**

None.

### **Use of Proceeds from Registered Securities**

None.

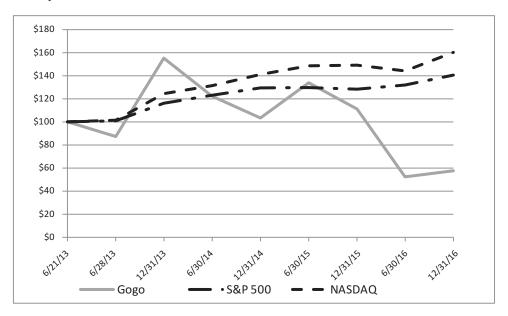
### Securities Authorized for Issuance Under Equity Compensation Plans

See Item 12, "Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters" for information regarding securities authorized for issuance.

#### **Performance**

This performance graph shall not be deemed "soliciting material" or to be "filed" with the SEC for purposes of Section 18 of the Exchange Act, or otherwise subject to the liabilities under that Section, and shall not be deemed to be incorporated by reference into any filing of Gogo Inc. under the Securities Act of 1933, as amended (the "Securities Act"), or the Exchange Act.

The following graph shows a comparison of cumulative total return for our common stock, the Standard & Poor's 500 Stock Index ("S&P 500") and the Nasdaq Composite Index ("NASDAQ Composite") for the period from June 21, 2013 (the date our common stock commenced trading on the NASDAQ) through December 30, 2016, the last trading day of 2016. The graph assumes that \$100 was invested at the market close on June 21, 2013 in our common stock, the S&P 500 and the NASDAQ Composite and assumes reinvestments of dividends, if any. The comparisons in the graph below are based upon historical data and are not indicative of, nor intended to forecast, future performance of our common stock.



#### Item 6. Selected Financial Data

The following tables present selected historical financial data as of and for the periods indicated. You should read this information together with Item 7, "Management's Discussion and Analysis of Financial Condition and Results of Operations" and our consolidated financial statements and the related notes included in this Annual Report on Form 10-K.

The consolidated statement of operations data and other financial data for the years ended December 31, 2016, 2015 and 2014 and the consolidated balance sheet data as of December 31, 2016 and 2015 have been derived from our audited consolidated financial statements included in this Annual Report on Form 10-K. The consolidated statement of operations data and other financial data for the years ended December 31, 2013 and 2012 and the consolidated balance sheet data as of December 31, 2014, 2013 and 2012 have been derived from our audited consolidated financial statements not included in this Annual Report on Form 10-K. Our historical results are not necessarily indicative of our results to be expected in any future period.

	For the Years Ended December 31,				
	2016	2015	2014	2013	2012
	(in thousands, except per share amounts)				
<b>Consolidated Statement of Operations Data:</b>					
Revenue:					
Service revenue	\$ 514,293	\$ 419,975	\$322,747	\$ 250,381	\$167,067
Equipment revenue	82,257	80,913	85,744	77,743	66,448
Total revenue	596,550	500,888	408,491	328,124	233,515
Total operating expenses (1)	623,187	545,730	459,160	372,791	260,952
Operating loss (1)	(26,637)	(44,842)	(50,669)	(44,667)	(27,437)
Other (income) expense:					
Interest expense	83,647	58,889	32,738	29,272	8,913
Fair value derivative adjustments	_	_	_	36,305	(9,640)
Extinguishment of debt	15,406	_	_	_	_
Adjustment of deferred financing costs	(792)	2,251	_	_	5,023
Interest income and other	(1,707)	393	(52)	(62)	(55)
Total other expense	96,554	61,533	32,686	65,515	4,241
Loss before income tax provision	(123,191)	(106,375)	(83,355)	(110,182)	(31,678)
Income tax provision	1,314	1,238	1,183	1,107	1,036
Net loss	(124,505)	(107,613)	(84,538)	(111,289)	(32,714)
Class A and Class B senior convertible preferred					
stock return	_	_		(29,277)	(52,427)
Accretion of preferred stock				(5,285)	(10,499)
Net loss attributable to common stock	\$(124,505)	\$(107,613)	\$(84,538)	\$(145,851)	\$ (95,640)
Net loss per share attributable to common stock—					
basic and diluted (2)	\$ (1.58)	\$ (1.35)	\$ (0.99)	\$ (3.05)	\$ (14.07)
Weighted average shares used in computing net loss	. ( /			. ( /	
attributable to common stock—basic and diluted (2)	78,915	79,701	85,147	47,832	6,798

	As of December 31,					
	2016	2015	2014	2013	2012	
	(in thousands)					
Consolidated Balance Sheet Data:						
Cash and cash equivalents	\$ 117,302	\$ 147,342	\$131,295	\$266,342	\$ 112,576	
Short-term investments	338,477	219,491	79,941			
Total cash, cash equivalents and short-term						
investments	455,779	366,833	211,236	266,342	112,576	
Working capital (3)	353,667	270,429	143,408	212,000	76,031	
Total assets	1,246,196	1,004,353	756,344	676,031	423,289	
Indebtedness and long-term capital leases, net of						
current portion (4)	802,709	545,359	294,439	225,669	122,853	
Total liabilities	1,286,589	938,158	558,586	405,841	254,688	
Convertible preferred stock (2)	_	_	_	_	614,378	
Total stockholders' equity (deficit) (2)	(40,393)	66,195	197,758	270,190	(445,777)	

<sup>(1)</sup> Includes depreciation and amortization expense of \$105.6 million, \$87.0 million, \$64.5 million, \$55.5 million and \$36.9 million, respectively, for each of the years ended December 31, 2016, 2015, 2014, 2013 and 2012.

<sup>(2)</sup> On June 20, 2013, we priced our IPO of 11,000,000 shares of our common stock and such shares began trading on the NASDAQ Global Select Market on June 21, 2013. The public offering price of the shares sold in the offering was \$17.00 per share. Upon consummation of the IPO, all outstanding shares of convertible preferred stock converted into 66,235,473 shares of common stock. As a result of the conversion of the convertible preferred stock to common stock, the value of the convertible preferred stock was transferred to stockholders' equity (deficit).

<sup>(3)</sup> We define working capital as total current assets less current liabilities.

<sup>(4)</sup> Includes deferred financing costs of \$16.3 million, \$14.6 million, \$11.3 million, \$13.0 million and \$8.8 million for each of the years ended December 31, 2016, 2015, 2014, 2013 and 2012, respectively.

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

The following discussion and analysis is intended to help the reader understand our business, financial condition, results of operations, liquidity and capital resources. You should read this discussion in conjunction with our consolidated financial statements and the related notes contained in this Annual Report on Form 10-K.

The statements in this discussion regarding industry outlook, our expectations regarding our future performance, liquidity and capital resources and other non-historical statements in this discussion are forward-looking statements. These forward-looking statements are subject to numerous risks and uncertainties, including, but not limited to, the risks and uncertainties described under "Risk Factors" in this report. Our actual results may differ materially from those contained in or implied by any forward-looking statements.

Our fiscal year ends December 31 and, unless otherwise noted, references to years or fiscal are for fiscal years ended December 31. See "—Results of Operations."

### **Company Overview**

Gogo ("we", "us", "our") is the global leader in providing broadband connectivity solutions and wireless in-flight entertainment to the aviation industry. We operate through the following three segments: Commercial Aviation North America, or "CA-NA," Commercial Aviation Rest of World, or "CA-ROW," and Business Aviation, or "BA."

Services provided by our CA-NA and CA-ROW businesses include Passenger Connectivity, which allows passengers to connect to the Internet from their personal Wi-Fi-enabled devices; Passenger Entertainment, which offers passengers the opportunity to enjoy a broad selection of in-flight entertainment options on their personal Wi-Fi enabled devices; and Connected Aircraft Services ("CAS"), which offer airlines connectivity for various operations and currently include among others, real-time credit card transaction processing, electronic flight bags and real-time weather information. Services are provided by CA-NA on commercial aircraft flying routes that generally begin and end within North America, which for this purpose includes the United States, Canada and Mexico. CA-ROW provides service on commercial aircraft operated by foreign-based commercial airlines and flights outside of North America for North American based commercial airlines. The routes included in our CA-ROW segment are those that begin and/or end outside of North America (as defined above) on which our international service is provided. BA provides in-flight Internet connectivity and other voice and data communications products and services and sells equipment for in-flight telecommunications to the business aviation market. BA services include Gogo Biz, our in-flight broadband service, Passenger Entertainment, our in-flight entertainment service, and satellite-based voice and data services through our strategic alliances with satellite companies.

#### **Recent Developments**

On January 3, 2017, the Issuers (as defined in Liquidity and Capital Resources below) issued \$65 million aggregate principal amount of additional Senior Secured Notes due 2022 (the "Additional Notes"). The Additional Notes were issued at a price equal to 108% of their face value resulting in gross proceeds of \$70.2 million. We intend to use the net proceeds from the issuance of the Additional Notes for working capital and other general corporate purposes. The Additional Notes have the same terms as the original Senior Secured Notes, except with respect to the issue date and issue price and are treated as a single series for all purposes under the Indenture and the security documents that govern the Additional Notes and the original Senior Secured Notes. See "-Liquidity and Capital Resources" below for additional information regarding the Senior Secured Notes. We paid approximately \$2.0 million of loan origination fees and financing costs related to the issuance of the Additional Notes, which has been accounted for as deferred financing costs. The deferred financing costs will be amortized over the contractual term of the Senior Secured Notes using the effective interest method.

### **Factors and Trends Affecting Our Results of Operations**

We believe that our operating and business performance is driven by various factors that affect the commercial airline and business aviation industries, including trends affecting the travel industry and trends affecting the customer bases that we target, as well as factors that affect wireless Internet service providers and general macroeconomic factors. Key factors that may affect our future performance include:

- costs associated with the implementation of, and our ability to implement on a timely basis our
  technology roadmap, upgrades and installation of our ATG-4, 2Ku, next generation ATG and other
  new technologies (including failures or delays on the part of antenna and other equipment developers
  and providers, some of which are single source, or delays in obtaining STCs), the roll-out of our
  satellite services, the potential licensing of additional spectrum, and the implementation of
  improvements to our network and operations as technology changes and we experience increased
  network capacity constraints;
- costs associated with, and our ability to execute our international expansion, including modifications of
  our network to accommodate satellite technology, development and implementation of new satellitebased technologies, the availability of satellite capacity, costs of satellite capacity to which we may
  have to commit well in advance, and, our ability to obtain and comply with foreign
  telecommunications, aviation and other licenses and approvals necessary for our international
  operations;
- costs associated with managing a rapidly growing company;
- costs associated with, and our ability to obtain, sufficient capacity for heavily-trafficked areas in the United States, the costs of which we may have to commit to well in advance;
- the pace and extent of adoption of our service for use on international commercial aircraft by our current North American airline partners and new international airline partners;
- the number of aircraft in service in our markets, including consolidation of the airline industry or changes in fleet size by one or more of our commercial airline partners or BA fractional ownership customers;
- the economic environment and other trends that affect both business and leisure travel;
- the extent of passengers', airline partners' and other aircraft owners' and operators' adoption of our products and services, which is affected by, among other things, willingness to pay for the services that we provide, changes in technology and competition from current competitors and new market entrants;
- our ability to enter into and maintain long-term connectivity arrangements with airline partners, which
  depends on numerous factors including the real or perceived availability, quality and price of our
  services and product offerings as compared to those offered by our competitors;
- continued demand for connectivity and proliferation of Wi-Fi enabled devices, including smartphones, tablets and laptops;
- changes in domestic or foreign laws, regulations or policies resulting from the 2016 elections that affect our business or the business of our customers and suppliers;
- changes in laws, regulations and interpretations affecting telecommunications services, including those
  affecting our ability to maintain our licenses for ATG spectrum in the United States, obtain sufficient
  rights to use additional ATG spectrum and/or other sources of broadband connectivity to deliver our
  services, and expand our service offerings; and
- changes in laws, regulations and interpretations affecting aviation, including, in particular, changes that impact the design of our equipment and our ability to obtain required certifications for our equipment.

#### **Summary Financial Information**

Consolidated revenue was \$596.6 million, \$500.9 million and \$408.5 million, respectively, for the years ended December 31, 2016, 2015 and 2014. As of December 31, 2016, the CA-NA segment had 2,676 commercial aircraft online as compared with 2,387 as of December 31, 2015. As of December 31, 2016, the BA segment had 5,500 aircraft online with satellite systems and 4,172 ATG systems online as compared with 5,454 and 3,477, respectively, as of December 31, 2015. As of December 31, 2016, the CA-ROW segment had 267 aircraft online as compared with 202 aircraft online as of December 31, 2015.

### **Key Business Metrics**

Connectivity take rate

contract are assigned to CA-ROW.

Our management regularly reviews financial and operating metrics, including the following key operating metrics for the CA-NA, CA-ROW and BA segments, to evaluate the performance of our business and our success in executing our business plan, make decisions regarding resource allocation and corporate strategies, and evaluate forward-looking projections.

Commercial Aviation North America			
	For the Ye	ars Ended De	cember 31,
	2016	2015	2014
Aircraft online (at period end)	2,676	2,387	2,098
Aircraft equivalents (average during the period)	2,629	2,274	2,098
Average monthly service revenue per aircraft equivalent (ARPA)	\$ 11,392	\$ 11,304	\$ 10,064
Gross passenger opportunity (GPO) (in thousands)	398,075	351,730	313,979
Total average revenue per session (ARPS)	\$ 12.31	\$ 12.74	\$ 11.08

6.6%

6.2%

6.7%

#### **Commercial Aviation Rest of World** For the Years Ended December 31, 2016 2015 2014 Aircraft online (at period end) 267 202 85 Aircraft equivalents (average during the period) 196 130 85 **ARPA** \$13,224 \$10,545 n/m

- Aircraft online. We define aircraft online as the total number of commercial aircraft on which our equipment is installed and service has been made commercially available as of the last day of each period presented. We assign aircraft to CA-NA or CA-ROW at the time of contract signing as follows: (i) all aircraft operated by North American airlines and under contract for ATG or ATG-4 service are assigned to CA-NA, (ii) all aircraft operated by North American airlines and under a contract for satellite service are assigned to CA-NA or CA-ROW based on whether the routes flown by such aircraft under the contract are anticipated to be predominantly within or outside of North America at the time the contract is signed, and (iii) all aircraft operated by non-North American airlines and under
- Aircraft equivalents. We define aircraft equivalents for a segment as the total number of commercial
  aircraft online (as defined above) multiplied by the percentage of flights flown within the scope of that
  segment, rounded to the nearest whole aircraft and expressed as an average of the month end figures
  for each month in such period. This methodology takes into account the fact that during a particular
  period certain aircraft may fly routes outside the scope of the segment to which they are assigned for
  purposes of the calculation of aircraft online.
- Average monthly service revenue per aircraft equivalent ("ARPA"). We define ARPA for a segment as the aggregate service revenue plus monthly service fees included as a reduction to cost of service revenue for that segment for the period divided by the number of months in the period, divided by the number of aircraft equivalents (as defined above) for that segment during the period. Prior to 2016,

aircraft online were used as the denominator to calculate ARPA. Beginning in 2016, ARPA is calculated by using aircraft equivalents as the denominator. We believe the revised ARPA methodology more accurately reflects ARPA by segment because it better reflects the number of aircraft that actually generated the revenue while flying within the scope of each segment during a specific period. ARPA for the CA-NA segment during the year ended December 31, 2015 was originally reported as \$11,387 and has been revised to \$11,304 to reflect the change in methodology. We did not adjust ARPA for the year ended December 31, 2014 as the number of aircraft online equaled the number of aircraft equivalents.

- Gross passenger opportunity ("GPO"). We define GPO as the aggregate number of passengers who board commercial aircraft on which Gogo service has been available during the period presented. When available directly from our airline partners, we aggregate actual passenger counts across flights on Gogo-equipped aircraft. When not available directly from our airline partners, we estimate GPO. Estimated GPO is calculated by first estimating the number of flights occurring on each Gogo-equipped aircraft, then multiplying by the number of seats on that aircraft, and finally multiplying by a seat factor that is determined from historical information provided to us in arrears by our airline partners. The estimated number of flights is derived from real-time flight information provided to our front-end systems by Air Radio Inc. (ARINC), direct airline feeds and supplementary third-party data sources. These aircraft-level estimates are then aggregated with actual airline-provided passenger counts to obtain total GPO.
- Total average revenue per session ("ARPS"). We define ARPS as revenue from Passenger
  Connectivity, excluding non-session related revenue, divided by the total number of sessions during the
  period. A session, or a "use" of Passenger Connectivity, is defined as the use by a unique passenger of
  Passenger Connectivity on a flight segment. Multiple logins or purchases under the same user name
  during one flight segment count as only one session.
- Connectivity take rate. We define connectivity take rate as the number of sessions during the period expressed as a percentage of GPO. Included in our connectivity take-rate calculation are sessions for which we did not receive revenue, including those provided pursuant to free promotional campaigns and, to a lesser extent, as a result of complimentary passes distributed by our customer service representatives for unforeseen technical issues. For the periods listed above, the number of sessions for which we did not receive revenue was not material.

	For the Years Ended December 31,		
	2016	2015	2014
Aircraft online (at period end)			
Satellite	5,500	5,454	5,377
ATG	4,172	3,477	2,797
Average monthly service revenue per aircraft online			
Satellite	\$ 221	\$ 182	\$ 167
ATG	2,548	2,302	2,064
Units Sold			
Satellite	477	560	561
ATG	737	923	943
Average equipment revenue per unit sold (in thousands)			
Satellite	\$ 43	\$ 41	\$ 47
ATG	57	55	59

- Satellite aircraft online. We define satellite aircraft online as the total number of business aircraft for which we provide satellite services as of the last day of each period presented.
- *ATG aircraft online*. We define ATG aircraft online as the total number of business aircraft for which we provide ATG services as of the last day of each period presented.

- Average monthly service revenue per satellite aircraft online. We define average monthly service revenue per satellite aircraft online as the aggregate satellite service revenue for the period divided by the number of months in the period, divided by the number of satellite aircraft online during the period (expressed as an average of the month end figures for each month in such period).
- Average monthly service revenue per ATG aircraft online. We define average monthly service revenue per ATG aircraft online as the aggregate ATG service revenue for the period divided by the number of months in the period, divided by the number of ATG aircraft online during the period (expressed as an average of the month end figures for each month in such period).
- Units sold. We define units sold as the number of satellite or ATG units for which we recognized revenue during the period. The total number of ATG units shipped was 808 for the year ended December 31, 2016 as compared with 923 for the prior year. Due to the commencement of a new sales program and resulting orders, we deferred the recognition of 71 ATG units shipped for the year ended December 31, 2016, as not all revenue recognition criteria were met. We had no such deferrals on our ATG unit shipments for the years ended December 31, 2015 and 2014, or in any period on satellite equipment shipments.
- Average equipment revenue per satellite unit sold. We define average equipment revenue per satellite
  unit sold as the aggregate equipment revenue earned from all satellite units sold during the period,
  divided by the number of satellite units sold.
- Average equipment revenue per ATG unit sold. We define average equipment revenue per ATG unit
  sold as the aggregate equipment revenue from all ATG units sold during the period, divided by the
  number of ATG units sold.

### **Key Components of Consolidated Statements of Operations**

The following briefly describes certain key components of revenue and expenses for the CA-NA, BA and CA-ROW segments, as presented in our consolidated statements of operations.

#### Revenue:

We generate two types of revenue through each of our operating segments: service revenue and equipment revenue.

### Commercial Aviation North America and Rest of World:

*Service revenue*. Service revenue, which currently represents substantially all of the CA-NA's and CA-ROW's segment revenue, is derived from Passenger Connectivity, Passenger Entertainment and Connected Aircraft Services ("CAS") related revenue.

Passenger Connectivity revenue includes connectivity services paid for by passengers, airlines and third parties.

Passenger paid revenue represents purchases of individual sessions (which may be flight or time-based and include multiple individual session packages) and monthly and annual subscriptions.

Airline paid revenue includes sponsorship revenue (Passenger Connectivity sold to airlines who sponsor free or discounted access to passengers) and our wholesale channel (Passenger Connectivity sold to airlines who in turn make Passenger Connectivity available through customer loyalty programs or as incentives directly to their customers). Airline paid revenue also includes Passenger Connectivity purchased for the use of airline pilots and flight crews and connectivity sold directly to the airlines for their passengers' use.

Third party paid revenue includes sponsorship revenue (Passenger Connectivity sold to third parties who sponsor free or discounted access to passengers) and our wholesale channel (Passenger Connectivity sold to third parties who in turn make Passenger Connectivity available through customer loyalty programs or as incentives directly to their customers). Third party paid revenue also includes revenue generated through our enterprise channel (such as Passenger Connectivity sold through travel management companies), our roaming channel (Passenger Connectivity sold to ground based Wi-Fi Internet providers or gateways who resell to their customers), advertising fees and e-commerce revenue share arrangements.

Passenger Entertainment offerings include business-to-consumer and business-to-business models. Under the business-to-consumer model, we provide our entertainment service directly to airline passengers. For the business-to-customer model, we determine pricing, charge the passenger directly and remit a share of the revenue to the airlines. For the business-to-business model, our airline partner determines the pricing and pays us directly for passenger access to our service and there is no revenue share to the airline in this model.

CAS revenue includes among other things real-time credit card transaction processing, electronic flight bags and real-time weather information.

Although we expect to continue to derive a substantial majority of CA-NA and CA-ROW service revenue from Passenger Connectivity, we expect revenue from Passenger Entertainment and CAS to increase in future periods.

Equipment revenue. We currently have three types of connectivity agreements with our airline partners. Equipment transactions under one form of agreement, which we have used on a limited basis but expect to use more in the future, qualify for sale treatment due to the specific provisions of the agreement. The remaining two types of connectivity agreements are treated as operating leases of space for our equipment on the aircraft. Under these two types of agreements, the equipment is included in property and equipment on our consolidated balance sheets. The upfront payments made by the airlines for such equipment are not included in equipment revenue in our consolidated statements of operations but are instead recorded on the balance sheet as deferred airborne lease incentives. See "—Cost of Service Revenue" below for further information regarding these two forms of connectivity agreements.

### **Business Aviation:**

Service revenue. Service revenue for the BA segment is primarily from subscription fees paid by aircraft owners and operators for telecommunication and data services that include in-flight broadband Internet access using our ATG network and satellite-based services that we resell. Additionally, the BA segment generates in-flight entertainment revenue through Gogo Vision.

Equipment revenue. Equipment revenue for the BA segment is generated by the sale of ATG and satellite-based telecommunication equipment to aircraft OEMs and a network of aftermarket dealers who are certified by the FAA to install avionics on business aircraft, including aircraft used in the fractional jet market. Equipment revenue is also generated by BA's Universal Cabin System or UCS, which is a single system that orchestrates, manages and delivers connectivity, entertainment and information services while managing multiple networks. Additionally, equipment revenue includes revenue from our Gogo Text & Talk product which is used through our ATG equipment.

#### Cost of Service Revenue:

### Commercial Aviation North America and Rest of World:

Cost of service revenue for the CA-NA and CA-ROW segments includes network related expenses (satellite network expenses, including costs for transponder capacity and backhaul, as well as data centers, network operations center, network technical support), aircraft operations, component assembly, portal maintenance, revenue share and transactional costs.

Additionally, CA-NA network costs include the costs of operating and maintaining our ATG network, including backhaul, site leases and cell site operations. A significant portion of our ATG network costs are relatively fixed in nature and do not fluctuate directly with revenue. Network costs for the CA-NA segment include licensing expense for the Canadian ATG spectrum.

Revenue share for CA-NA and CA-ROW consists of payments made to our airline partners under our connectivity agreements. Under our most prevalent type of connectivity agreement, our airline partners make an upfront payment for our equipment and take legal title to such equipment. These upfront payments are accounted for as deferred airborne lease incentives and amortized on a straight-line basis as a reduction of cost of service revenue over the term of the agreement. Additionally, monthly service fees we receive from our airline partners are accounted for as a reduction to our cost of service revenue. In addition to the revenue share percentage for Passenger Connectivity revenue, many of our agreements delineate revenue share percentages to be earned by our airline partners for revenue derived from Passenger Entertainment and other service revenue. Revenue share percentages for Passenger Entertainment and other service revenues vary by airline partner, but are generally higher than the revenue share percentages paid to our airline partners for Passenger Connectivity.

CA-NA and CA-ROW transactional costs include billing costs and transaction fees incurred internally and charged by third-party service providers.

#### **Business Aviation:**

Cost of service revenue for the BA segment consists of satellite provider service costs, transaction costs and costs related to network operations. We charge a portion of the CA-NA segment's ATG network costs to the BA segment. This charge to the BA segment is based on the amount of megabytes used by BA.

### Cost of Equipment Revenue:

Our cost of equipment revenue primarily consists of the purchase costs for component parts used in the manufacture of our equipment and the production, technical support and quality assurance costs associated with the equipment sales.

#### Engineering, Design and Development Expenses:

Engineering, design and development expenses include the costs to design and develop next generation technologies and to obtain and maintain FAA and other regulatory certifications. This includes the development of ground and airborne systems, including customization of network and airborne equipment, along with the design of airborne system installation processes. Engineering, design and development expenses also include costs associated with the enhancement of existing products.

### Sales and Marketing Expenses:

### Commercial Aviation North America and Rest of World:

Sales and marketing expenses for the CA-NA and CA-ROW segments consist primarily of costs associated with cultivating our relationships with our airline partners and attracting additional passengers as our customers. Sales and marketing activities related to the airlines include contracting with new airlines to offer our service on their aircraft, contracting to add additional aircraft operated by our existing airline partners to the installed fleet, joint marketing of our service with our airline partners, program management related service launches and trade shows. Sales and marketing activities related to passengers include advertising and marketing campaigns and promotions as well as customer service related activities and product management.

### **Business Aviation:**

Sales and marketing expenses for the BA segment consist of costs associated with activities related to customer sales (including sales commissions), advertising and promotions, product management, trade shows and customer service support related activities to end users.

#### General and Administrative Expenses:

General and administrative expenses include staff and related operating costs of the business support functions, including finance and accounting, legal, human resources, administrative, information technology, facilities and executive groups. We allocate to our BA and CA-ROW segments certain corporate operating expenses incurred by the CA-NA segment but shared by all segments.

### Depreciation and Amortization:

Depreciation expense for both the CA-NA and BA segments includes depreciation expense associated with our office equipment, furniture, fixtures and leasehold improvements. Additionally, the depreciation expense for the CA-NA segment includes depreciation of our airborne and ground network-related equipment. Depreciation expense for CA-ROW primarily includes depreciation of our airborne and satellite network-related equipment. We depreciate these assets on a straight-line basis over their estimated useful lives that range from 3-25 years, depending on the assets being depreciated.

Amortization expense includes the amortization of our finite lived intangible assets on a straight-line basis over their estimated useful lives that range from 3-10 years, depending on the assets being amortized.

### **Segment Profit (Loss)**

We measure our segments' performance on the basis of segment profit (loss), which is calculated as net income (loss) attributable to common stock before interest expense, interest income, income taxes, depreciation and amortization, and certain non-cash charges (including amortization of deferred airborne lease incentives, stock compensation expense, loss on extinguishment of debt and adjustment of deferred financing costs).

### **Critical Accounting Estimates**

Our discussion and analysis of our financial condition and results of operations are based on our consolidated financial statements, which have been prepared in accordance with accounting principles generally accepted in the United States of America ("GAAP"). The preparation of our consolidated financial statements and related disclosures requires us to make estimates, assumptions and judgments that affect the reported amounts of assets, liabilities, revenue, costs and expenses, and related exposures. We base our estimates and assumptions on historical experience and other factors that we believe to be reasonable under the circumstances. In some instances, we could reasonably use different accounting estimates, and in some instances results could differ significantly from our estimates. We evaluate our estimates and assumptions on an ongoing basis. To the extent that there are differences between our estimates and actual results, our future financial statement presentation, financial condition, results of operations and cash flows will be affected.

We believe the following accounting estimates are the most critical to aid in fully understanding and evaluating our reported financial results, and they require our most difficult, subjective or complex judgments, resulting from the need to make estimates. For a discussion of our significant accounting policies to which many of these critical estimates relate, see Note 2, "Summary of Significant Accounting Policies," in our consolidated financial statements.

### Long-Lived Assets:

Our long-lived assets (other than goodwill and indefinite-lived assets which are separately tested for impairment) are evaluated for impairment whenever events indicate that the carrying amount of such assets may not be recoverable. We evaluate long-lived assets for impairment by comparing the carrying value of the long-lived assets with the estimated future net undiscounted cash flows expected to result from the use of the assets, including cash flows from disposition. If the future net undiscounted cash flows are less than the carrying value,

we then calculate an impairment loss. The impairment loss is calculated by comparing the long-lived asset's carrying value with its estimated fair value, which may be based on estimated future discounted cash flows. We would recognize an impairment loss by the amount the long-lived asset's carrying value exceeds its estimated fair value. If we recognize an impairment loss, the adjusted balance becomes the new cost basis and is depreciated (amortized) over the remaining useful life of the asset. We also periodically reassess the useful lives of our long-lived assets due to advances and changes in our technologies.

Our impairment loss calculations contain uncertainties because they require management to make assumptions and to apply judgment to estimate future cash flows and long-lived asset fair values, including forecasting useful lives of the long-lived assets and selecting discount rates.

We do not believe there is a reasonable likelihood that there will be a material change in the nature of the estimates or assumptions we use to calculate our potential long-lived asset impairment losses. However, if actual results are not consistent with our assumptions used, we could experience an impairment triggering event and be exposed to losses that could be material.

### Stock-Based Compensation Expense:

We account for stock-based compensation expense based on the grant date fair value of the award. We recognize this cost as an expense over the requisite service period, which is generally the vesting period of the respective award. We use the Black-Scholes option-pricing model to determine the estimated fair value of stock options. Critical inputs into the Black-Scholes option-pricing model include: the annualized volatility of our common stock; the expected term of the option in years; the estimated grant date fair value of our common stock; the option exercise price; the risk-free interest rate; and the annual rate of quarterly dividends on the stock, which are estimated as follows:

- *Volatility*. We have not been a public company long enough to calculate volatility based exclusively on our own common stock. Therefore, the expected volatility is calculated as of each grant date based on a weighting of our own common stock and reported data for a peer group of publicly traded companies for which historical information is available. While we are not aware of any news or disclosure by our peers that may impact their respective volatilities, there is a risk that peer group volatility may increase, thereby increasing the future compensation expense resulting from future option grants. We intend to increase the weighting of our company-specific volatility over time, relying less on our peer group, as additional historical data becomes available.
- Expected Term. The expected term of the stock options is determined based upon the simplified approach, allowed under SEC Staff Accounting Bulletin No. 110, which assumes that the stock options will be exercised evenly from vesting to expiration, as we do not have sufficient historical exercise data to provide a reasonable basis upon which to estimate the expected term. As we obtain data associated with future exercises, the expected term of future grants will be adjusted accordingly.
- Fair Value of Our Common Stock. The fair value of our common stock underlying the stock options and other stock-based awards was valued by reference to the publicly traded closing price of our common stock on the grant date.
- *Option Exercise Price*. The option exercise price was determined based on the publicly traded closing price of our common stock on the date of grant.
- *Risk-free Interest Rate.* The risk-free interest rate is based on the yields of U.S. Treasury securities with maturities similar to the expected term of the options for each option group.
- *Dividend Yield.* We have never declared or paid any cash dividends and do not presently plan to pay cash dividends in the foreseeable future. Consequently, we use an expected dividend yield of zero.

If any of the assumptions used in the Black-Scholes model changes significantly, stock-based compensation expense for future awards may differ materially compared with the awards previously granted. The inputs that

create the most sensitivity in our option valuation are the volatility and expected term. See Note 11, "Stock-Based Compensation Expense," in our consolidated financial statements for additional information regarding the assumptions used in the Black-Scholes model.

### Recent Accounting Pronouncements

See Note 2, "Summary of Significant Accounting Policies," in our consolidated financial statements for additional information.

### **Results of Operations**

The following table sets forth, for the periods presented, certain data from our consolidated statements of operations. The information contained in the table below should be read in conjunction with our consolidated financial statements and related notes.

### **Consolidated Statements of Operations Data**

(in thousands)

	For the Years Ended December 31,		
	2016	2015	2014
Revenue:			
Service revenue	\$ 514,293	\$ 419,975	\$322,747
Equipment revenue	82,257	80,913	85,744
Total revenue	596,550	500,888	408,491
Operating expenses:			
Cost of service revenue (exclusive of items shown below)	226,078	187,803	172,628
Cost of equipment revenue (exclusive of items shown below)	48,650	40,558	39,723
Engineering, design and development	96,713	87,437	69,519
Sales and marketing	61,177	56,143	42,107
General and administrative	84,927	86,753	70,732
Depreciation and amortization	105,642	87,036	64,451
Total operating expenses	623,187	545,730	459,160
Operating loss	(26,637)	(44,842)	(50,669)
Other (income) expense:			
Interest income	(1,635)	(181)	(61)
Interest expense	83,647	58,889	32,738
Extinguishment of debt	15,406	_	_
Adjustment of deferred financing costs	(792)	2,251	_
Other (income) expense	(72)	574	9
Total other expense	96,554	61,533	32,686
Loss before incomes taxes	(123,191)	(106,375)	(83,355)
Income tax provision	1,314	1,238	1,183
Net loss	<u>\$(124,505)</u>	<u>\$(107,613)</u>	<u>\$ (84,538)</u>

**Revisions**—During the three months ended September 30, 2016, we determined that it was necessary to revise the presentation of our investments in U.S. Treasury bills as short-term investments, rather than as cash and cash equivalents, in the consolidated balance sheets. Therefore, changes in our short-term investments are included in cash flows from investing activities in our consolidated statements of cash flows. See Note 2, "Summary of Significant Accounting Policies," in our consolidated financial statements for additional information.

### Years Ended December 31, 2016 and 2015

#### Revenue:

Revenue by segment and percent change for the years ended December 31, 2016 and 2015 were as follows (in thousands, except for percent change):

	For the Years Ended December 31,		% Change 2016 over	
	2016	2015	2015	
Service Revenue:			<u> </u>	
CA-NA	\$357,250	\$308,360	15.9%	
BA	132,845	100,052	32.8%	
CA-ROW	24,198	11,563	109.3%	
Total Service Revenue	\$514,293	\$419,975	22.5%	
<b>Equipment Revenue:</b>				
ĈA-NA	\$ 14,273	\$ 2,302	520.0%	
BA	66,804	78,610	(15.0%)	
CA-ROW	1,180	1	n/m	
Total Equipment Revenue	\$ 82,257	\$ 80,913	1.7%	
Total Revenue:				
CA-NA	\$371,523	\$310,662	19.6%	
BA	199,649	178,662	11.7%	
CA-ROW	25,378	11,564	119.5%	
Total Revenue	\$596,550	\$500,888	19.1%	

#### Commercial Aviation North America:

CA-NA revenue increased to \$371.5 million for the year ended December 31, 2016 as compared with \$310.7 million for the prior year, primarily due to an increase in service revenue driven by Passenger Connectivity revenue. The increase in CA-NA Passenger Connectivity revenue was primarily due to an increase in the number of aircraft online and an increase in connectivity take rate, partially offset by a decrease in ARPS. GPO increased to 398.1 million for year ended December 31, 2016 as compared with 351.7 million for the prior year, driven by an increase in aircraft online. The connectivity take rate increased to 6.6% for the year ended December 31, 2016 as compared with 6.2% for the prior year, reflecting increased passenger adoption including the impact of third party-paid promotions. Passenger Connectivity sessions totaled 26.4 million for the year ended December 31, 2016 as compared with 21.7 million for the prior year. ARPS decreased to \$12.31 for the year ended December 31, 2016 as compared with \$12.74 for the prior year, due to shifts in product mix and third party-paid promotions. ARPA increased slightly to \$11,392 for the year ended December 31, 2016 as compared with \$11,304 for the prior year. ARPA increased an estimated 10% for the year ended December 31, 2016, as compared with the prior year period, excluding aircraft added since the beginning of 2015, which primarily include regional jets and aircraft operated by new airline partners.

A summary of the components of CA-NA's service revenue for the years ended December 31, 2016 and 2015 is as follows (in thousands, except for percent change):

	Ended December 31,		2016 over
	2016	2015	2015
Passenger Connectivity revenue (1)	\$341,104	\$294,220	15.9%
Passenger Entertainment and CAS	16,146	14,140	<u>14.2</u> %
Total service revenue	<u>\$357,250</u>	\$308,360	15.9% ===

For the Voors

% Change

<sup>(1)</sup> Includes non-session related revenue of \$15.7 million and \$18.1 million for the years ended December 31, 2016 and 2015, respectively, primarily included within third party paid revenue.

CA-NA Passenger Connectivity revenue increased to \$341.1 million for the year ended December 31, 2016 as compared with \$294.2 million for the prior year due to increases in passenger-paid, third party-paid and airline-paid revenue. Passenger-paid revenue increased due to increases in both individual sessions and subscriptions. Third party-paid revenue increased primarily due to increases in roaming and enterprise revenue. Our airline-paid revenue increased due to new agreements with certain airline partners under which the airlines pay us for data usage, including data used by passengers and by airline pilots and crew members using connectivity services while in flight.

The increase in Passenger Entertainment and CAS revenue to \$16.1 million for the year ended December 31, 2016 as compared with \$14.1 million for the prior year was driven primarily by increased usage of Passenger Entertainment services under our business-to-business arrangements.

CA-NA revenue also increased due to an increase in equipment revenue to \$14.3 million for the year ended December 31, 2016, as compared with \$2.3 million in the prior year period, due primarily to the signing of certain contracts with airline partners under which the equipment transactions qualify for sales treatment.

#### **Business Aviation:**

BA revenue increased to \$199.6 million for the year ended December 31, 2016 as compared with \$178.7 million for the prior year due to an increase in service revenue offset in part by a decrease in equipment revenue.

BA service revenue increased to \$132.8 million for the year ended December 31, 2016 as compared with \$100.1 million for the prior year primarily due to more customers subscribing to our Gogo Biz (ATG) service. The number of ATG aircraft online increased 20.0% to 4,172 as of December 31, 2016, as compared with 3,477 as of December 31, 2015.

BA equipment revenue decreased to \$66.8 million for the year ended December 31, 2016 as compared with \$78.6 million for the prior year due to a decrease in ATG and satellite equipment revenue consistent with trends in the overall business aviation market. Additionally, we deferred approximately \$5.5 million of equipment revenue during the year ended December 31, 2016 under a new sales program for Gogo Biz 4G equipment pursuant to which we have shipped ATG and UCS equipment with a free upgrade provision to exchange that equipment to Gogo Biz 4G equipment. We will recognize this deferred revenue upon the earlier of the shipment of the Gogo Biz 4G equipment or the expiration of the free upgrade period, which is December 31, 2017.

### Commercial Aviation Rest of World:

We generated \$24.2 million of service revenue for the year ended December 31, 2016 as compared with \$11.6 million for the prior year period due to more aircraft online and growth in ARPA. ARPA for the CA-ROW segment increased to \$13,224 for the year ended December 31, 2016 as compared with \$10,545 for the prior year period due to increased airline-paid passenger usage.

### Cost of Service Revenue:

Cost of service revenue by segment and percent change for the years ended December 31, 2016 and 2015 were as follows (in thousands, except for percent change):

	Ended December 31,		2016 over	
	2016	2015	2015	
CA-NA	\$145,545	\$126,710	14.9%	
BA	35,027	25,985	34.8%	
CA-ROW	45,506	35,108	<u>29.6</u> %	
Total	<u>\$226,078</u>	\$187,803	<u>20.4</u> %	

For the Years

% Change

CA-NA cost of service revenue increased to \$145.5 million for the year ended December 31, 2016 as compared with \$126.7 million for the prior year due to an increase in revenue share earned by our airline partners, network operations expenses (including satellite service fees) and aircraft operations expenses. The revenue share increase of \$8.8 million for the year ended December 31, 2016 over the prior year was primarily driven by the increase in CA-NA service revenue for the current year. These cost increases were partially offset by an increase in the amortization of our deferred airborne lease incentives and the recognition of monthly service fees paid to us by certain of our airline partners, both of which reduce our cost of service revenue. See Note 14, "Leases," in our consolidated financial statements for additional information regarding our deferred airborne lease incentives. Revenue share as a percentage of service revenue remained relatively consistent.

BA cost of service revenue increased to \$35.0 million for the year ended December 31, 2016 as compared with \$26.0 million for the prior year. The increase in cost of service revenue was primarily due to the increase in the number of ATG units online and an increase in the average network utilization per ATG unit online, which resulted in higher ATG network service costs.

CA-ROW cost of service revenue increased to \$45.5 million for the year ended December 31, 2016 as compared with \$35.1 million in the prior year primarily due to increases in network operations expenses (including satellite service fees), aircraft operations expenses, revenue share expense and billing and transaction related expenses as the business continued to grow. These increases were partially offset by the recognition of monthly service fees paid to us by certain of our airline partners and the amortization of our deferred airborne lease incentives, both of which reduce our cost of service revenue. See Note 14, "Leases," in our consolidated financial statements for additional information regarding our deferred airborne lease incentives.

We expect cost of service revenue for CA-NA to increase in future periods due to network-related expenses to support the projected increased use and expansion of our network. Such expenses will include additional satellite coverage to support and/or supplement service in certain geographical areas. Additionally, we expect our maintenance costs to increase in future periods. Over time, we expect total cost of service revenue in CA-NA to decline as a percentage of total service revenue as we realize efficiencies inherent in the scalability of our business.

As we expand our business internationally, we also expect to incur additional cost of service revenue in CA-ROW, reflecting increased satellite usage and additional revenue share, billing, transaction and network related expenses.

### Cost of Equipment Revenue:

Cost of equipment revenue by segment and percent change for the years ended December 31, 2016 and 2015 were as follows (in thousands, except for percent change):

	Ended December 31,		2016 over
	2016	2015	2015
CA-NA	\$11,366	\$ 1,629	597.7%
BA	36,619	38,929	(5.9%)
CA-ROW	665		n/a
Total	<u>\$48,650</u>	\$40,558	20.0%

Cost of equipment revenue increased to \$48.7 million for the year ended December 31, 2016 as compared with \$40.6 million for the prior year. The increase occurred primarily within the CA-NA segment due to the signing of equipment sales contracts with new airline partners under which the equipment transactions qualify for sales treatment. This increase was partially offset by a decrease in the BA segment due to the decrease in equipment revenues. We expect that our cost of equipment revenue will vary with changes in equipment revenue.

#### Engineering, Design and Development Expenses:

Engineering, design and development expenses increased 10.6% to \$96.7 million for the year ended December 31, 2016 as compared with \$87.4 million for the prior year due to increases in the CA-NA and CA-ROW segments, offset in part by a decrease in the BA segment.

Engineering, design and development expenses for the CA-NA and CA-ROW segments increased due to higher personnel expense in connection with the development of next generation products and technologies and STCs.

We expect engineering, design and development expenses to increase in future periods as we continue to execute our technology roadmap, expand internationally and develop next generation products and technologies. Additionally, in the first quarter of 2017 we expect to recognize approximately \$9.0 million of expenses related to the completion of the first phase of development of our next generation ATG solution.

### Sales and Marketing Expenses:

Sales and marketing expenses increased 9.0% to \$61.2 million for the year ended December 31, 2016 as compared with \$56.1 million for the prior year due to increases in the BA and CA-ROW segments, offset in part by a decrease in the CA-NA segment. Consolidated sales and marketing expenses as a percentage of total consolidated revenue was 10.3% for the year ended December 31, 2016 as compared with 11.2% for the prior year.

Sales and marketing expenses for the BA and CA-ROW segments increased due to an increase in personnel expense to support the growth of the business and marketing related activities.

We expect our sales and marketing expenses to increase in future periods as we expand our international marketing initiatives, commence service on aircraft operated by new and existing airline partners both in CA-NA and CA-ROW, increase advertising and promotional initiatives for new product offerings and expand programs to retain and support our existing users. In addition, the commission component of sales and marketing expenses at BA will fluctuate with equipment revenue. We expect consolidated sales and marketing expenses to decrease as a percentage of consolidated revenue over time.

#### General and Administrative Expenses:

General and administrative expenses decreased slightly 2.1% to \$84.9 million for the year ended December 31, 2016 as compared with \$86.8 million for the prior year due to decreases in the CA-NA and CA-ROW segments, offset in part by an increase in the BA segment. Consolidated general and administrative expenses as a percentage of total consolidated revenue was 14.2% for the year ended December 31, 2016 as compared with 17.3% for the prior year.

The decrease in the CA-NA segment's general and administrative expenses for the year ended December 31, 2016 as compared with the prior year was due primarily to a decrease in rent expense, as we had overlapping leases in the prior year period, and to a decrease in legal expenses offset in part by an increase in personnel related expenses.

The decrease in the CA-ROW segment's general and administrative expenses for the year ended December 31, 2016 over the prior year was due primarily to a decrease in rent expense.

The increase in the BA segment's general and administrative expenses for the year ended December 31, 2016 over the prior year was due primarily to an increase in rent expense offset in part by a slight decrease in personnel related expenses.

We expect our general and administrative expenses to increase in future periods as we expand our workforce to support the growth of our business both domestically and internationally. However, we expect general and administrative expenses to decrease as a percentage of consolidated revenue as we realize economies of scale.

### Segment Profit (Loss):

CA-NA's segment profit increased 71.6% to \$71.9 million for the year ended December 31, 2016 as compared with \$41.9 million for the prior year due to increases in service and equipment revenue partially offset by increases in operating expenses, as discussed above.

BA's segment profit increased 15.3% to \$82.9 million for the year ended December 31, 2016 as compared with \$71.9 million for the prior year due to increases in service revenue, partially offset by increases in operating expenses and a decrease in equipment revenue, as discussed above.

CA-ROW's segment loss increased 14.6% to \$87.6 million for the year ended December 31, 2016 as compared with \$76.4 million for the prior year due to an increase in operating expenses, partially offset by an increase in service and equipment revenue, as discussed above.

#### Depreciation and Amortization:

Depreciation and amortization expense increased 21.4% to \$105.6 million for the year ended December 31, 2016 as compared with \$87.0 million for the prior year due to the increase in the number of aircraft outfitted with our airborne equipment by our CA-ROW and CA-NA segments, as well as a full year of leasehold improvements and furniture and fixtures associated with our new office facilities. Additionally, depreciation expense increased due to an acceleration of depreciation associated with reduced useful lives for certain equipment.

We expect our depreciation and amortization expense to increase in future periods as we install our equipment on additional aircraft, install higher-cost satellite-based equipment on more aircraft (primarily to service the CA-ROW segment) and further expand our ground and satellite networks.

#### Other (Income) Expense:

Other (income) expense and percent change for the years ended December 31, 2016 and 2015 were as follows (in thousands, except for percent change):

	For the Years Ended December 31,		% Change 2016 over	
	2016	2015	2015	
Interest income	\$ (1,635)	\$ (181)	803.3%	
Interest expense	83,647	58,889	42.0%	
Loss on extinguishment of debt	15,406	_	n/a	
Adjustment of deferred financing costs	(792)	2,251	n/a	
Other (income) expense	(72)	574	n/a	
Total	\$96,554	\$61,533	56.9%	

Total other expense was \$96.6 million for the year ended December 31, 2016, as compared to \$61.6 million for the prior year period. The increase was primarily driven by an increase in interest expense due to higher average debt levels outstanding and higher average interest rates incurred during the current year as compared with the prior year. The increase in interest expense for the year ended December 31, 2016 as compared to the prior year period, was due to the issuance of the Senior Secured Notes (as defined below) in June 2016 as well as

the issuance of the Convertible Notes (as defined below) in March 2015. Interest expense also increased due to accretion expense associated with the Convertible Notes and amortization of deferred financing costs associated with the Senior Secured Notes and Convertible Notes. The increase in interest expense was partially offset by lower interest expense associated with the Amended and Restated Senior Term Facility as a result of it being repaid in full in June 2016. Additionally, other expense for the year ended December 31, 2016 included the loss on extinguishment of debt of \$15.4 million associated with the repayment of all outstanding amounts under the Amended and Restated Senior Term Facility, while we had no such activity in the prior year. These increases were partially offset by income from adjustments to deferred financing costs, which in the prior year was an expense, and further offset by an increase in interest income due to higher average cash balances in 2016 as compared with 2015. See Note 6, "Long-Term Debt and Other Liabilities," in our consolidated financial statements for additional information. See Note 7, "Interest Costs," in our consolidated financial statements for additional information related to our interest expense.

We expect our interest expense to increase in 2017 as compared with 2016 due to higher average debt outstanding and higher average interest rates in 2017 as compared to 2016 as a result of the issuance of the Senior Secured Notes in June 2016 and the Additional Notes in January 2017. Interest expense will also increase due to a full year of amortization of deferred financing fees associated with the Senior Secured Notes. These increases will be partially offset by the extinguishment of the Amended and Restated Senior Term Facility in June 2016. See Note 6, "Long-Term Debt and Other Liabilities," in our consolidated financial statements for additional information.

#### Income Taxes:

The effective income tax rate for the year ended December 31, 2016 was (1.1%) as compared with (1.2%) for the prior year. Income tax expense recorded in each period was similar, with differences in pre-tax income causing the change in the effective tax rate. The difference between our effective tax rates and the U.S. federal statutory rate of 35% for the year ended December 31, 2016 and 2015 was primarily due to the recording of a valuation allowance against our net deferred tax assets which is excluded from taxable income (loss).

We expect our income tax provision to increase in future periods to the extent we become profitable.

### Years Ended December 31, 2015 and 2014

#### Revenue:

Revenue by segment and percent change for the years ended December 31, 2015 and 2014 were as follows (in thousands, except for percent change):

	For the Years Ended December 31,		% Change 2015 over
	2015	2014	2014
Service Revenue:			
CA-NA	\$308,360	\$248,625	24.0%
BA	100,052	71,993	39.0%
CA-ROW	11,563	2,129	443.1%
Total Service Revenue	\$419,975	\$322,747	30.1%
<b>Equipment Revenue:</b>			
CA-NA	\$ 2,302	\$ 2,128	8.2%
BA	78,610	83,603	(6.0%)
CA-ROW	1	13	(92.3%)
Total Equipment Revenue	\$ 80,913	\$ 85,744	(5.6%)
T-4-1 D			
Total Revenue:	\$310,663	¢250.752	22.00
CA-NA	\$310,662	\$250,753	23.9%
BA CA DOW	178,662	155,596	14.8%
CA-ROW	11,564	2,142	439.9%
Total Revenue	\$500,888	\$408,491	22.6%

#### Commercial Aviation North America:

CA-NA revenue increased to \$310.7 million for the year ended December 31, 2015 as compared with \$250.8 million for the prior year primarily due to an increase in service revenue driven by Passenger Connectivity revenue. The increase in CA-NA Passenger Connectivity revenue was primarily due to an increase in ARPS and the number of aircraft online, partially offset by a decrease in connectivity take rate. ARPS increased to \$12.74 for the year ended December 31, 2015 as compared with \$11.08 for the prior year due primarily to price increases and changes to our product mix. ARPA increased to \$11,304 for the year ended December 31, 2015 as compared with \$10,064 for the prior year. GPO increased to 351.7 million for year ended December 31, 2015 as compared with 314.0 million for the prior year, driven by an increase in aircraft online. The connectivity take rate decreased to 6.2% for the year ended December 31, 2015 as compared with 6.7% for the prior year, primarily due to an increase in the number of regional jets online, which typically have a lower connectivity take rate. Passenger Connectivity sessions totaled 21.7 million for the year ended December 31, 2015 as compared with 21.1 million for the prior year.

A summary of the components of CA-NA's service revenue for the years ended December 31, 2015 and 2014 is as follows (in thousands, except for percent change):

	For the Years Ended December 31,		% Change 2015 over	
	2015	2014	2014	
Passenger Connectivity revenue (1)	\$294,220	\$244,088	20.5%	
Passenger Entertainment and CAS	14,140	4,537	211.7%	
Total service revenue	\$308,360	\$248,625	24.0%	

CA-NA Passenger Connectivity revenue increased to \$294.2 million for the year ended December 31, 2015 as compared with \$244.1 million for the prior year due to increases in passenger-paid, third party-paid and airline-paid revenue. Passenger-paid revenue increased due to increases in both individual sessions and subscriptions. Third party-paid revenue increased primarily due to increases in roaming, enterprise and wholesale revenue, offset in part by a decrease in sponsorship and advertising revenue. Our airline-paid revenue increased due to recently entered into agreements with certain airline partners under which the airlines pay us for certain data usage, including data used by passengers accessing whitelisted sites and by airline pilots and crew members using connectivity services while in flight.

The increase in Passenger Entertainment and CAS revenue of 211.7% to \$14.1 million for the year ended December 31, 2015 as compared with \$4.5 million for the prior year was driven primarily by a business-to-business arrangement with one of our airline partners for our Passenger Entertainment offering that commenced in the second half of 2014, as well as a second Passenger Entertainment program with another airline partner that commenced in the first quarter of 2015.

### **Business Aviation:**

BA revenue increased to \$178.7 million for the year ended December 31, 2015 as compared with \$155.6 million for the prior year due to an increase in service revenue offset in part by a decrease in equipment revenue.

BA service revenue increased to \$100.1 million for the year ended December 31, 2015 as compared with \$72.0 million for the prior year primarily due to more customers subscribing to our Gogo Biz (ATG) service as well as the full year impact of price increases implemented during 2014. The number of ATG aircraft online increased 24.3% to 3,477 as of December 31, 2015, as compared with 2,797 as of December 31, 2014.

<sup>(1)</sup> Includes non-session related revenue of \$18.1 million and \$10.2 million for the years ended December 31, 2015 and 2014, respectively, primarily included within third party paid revenue.

BA equipment revenue decreased to \$78.6 million for the year ended December 31, 2015 as compared with \$83.6 million for the prior year due to a decrease in ATG and satellite equipment revenue. ATG equipment revenue decreased 7.9% to \$51.1 million for year ended December 31, 2015, as compared with \$55.5 million for the prior year due to a 2.1% decrease in the number of units shipped and changes in product mix. Satellite equipment revenue decreased 11.3% to \$23.2 million for year ended December 31, 2015, as compared with \$26.1 million for the prior year due to changes in product mix.

### Commercial Aviation Rest of World:

CA-ROW service revenue increased to \$11.6 million for the year ended December 31, 2015, as compared with \$2.1 million for the prior year due to more aircraft online.

### Cost of Service Revenue:

Cost of service revenue by segment and percent change for the years ended December 31, 2015 and 2014 were as follows (in thousands, except for percent change):

	For the Years Ended December 31,		% Change 2015 over	
	2015	2014	2014	
CA-NA	\$126,710	\$117,654	7.7%	
BA	25,985	19,289	34.7%	
CA-ROW	35,108	35,685	(1.6%)	
Total	<u>\$187,803</u>	<u>\$172,628</u>	<u>8.8</u> %	

CA-NA cost of service revenue increased to \$126.7 million for the year ended December 31, 2015 as compared with \$117.7 million for the prior year due to an increase in revenue share earned by our airline partners, content costs related to our Passenger Entertainment service offerings and network operations expenses (including network maintenance, satellite service fees, backhaul and site leases). The revenue share increase of \$6.2 million for the year ended December 31, 2015 over the prior year was primarily driven by the increase in CA-NA service revenue for the current year. These increases were partially offset by an increase in the amortization of our deferred airborne lease incentives and the recognition of monthly service fees paid to us by certain of our airline partners, both of which reduce our cost of services. See Note 14, "Leases" in our consolidated financial statements for additional information regarding our deferred airborne lease incentives. Revenue share as a percentage of service revenue decreased due to new airline contracts and amendments that provide for lower revenue share than those of certain pre-existing contracts.

BA cost of service revenue increased to \$26.0 million for the year ended December 31, 2015 as compared with \$19.3 million for the prior year. The increase in cost of service revenue was primarily due to the increase in the number of ATG units online and an increase in the average network utilization per ATG unit online, which resulted in higher ATG network service costs.

CA-ROW cost of service revenue decreased slightly to \$35.1 million for the year ended December 31, 2015 as compared with \$35.7 million in the prior year primarily due to the recognition of monthly service fees paid to us by certain of our airline partners and the amortization of our deferred airborne lease incentives, both of which reduce our cost of service revenue. See Note 14, "Leases," in our consolidated financial statements for additional information regarding our deferred airborne lease incentives. These decreases were partially offset by an increase in satellite service fees, revenue share expense and billing and transaction related expenses as the business grew following the commencement of our service in March 2014.

### Cost of Equipment Revenue:

Cost of equipment revenue by segment and percent change for the years ended December 31, 2015 and 2014 were as follows (in thousands, except for percent change):

		For the Years Ended December 31,		
	2015	2014	2015 over 2014	
CA-NA	\$ 1,629	\$ 2,186	(25.5%)	
BA	38,929	37,530	3.7%	
CA-ROW		7	n/a	
Total	<u>\$40,558</u>	\$39,723	2.1%	

Cost of equipment revenue increased to \$40.6 million for the year ended December 31, 2015 as compared with \$39.7 million for the prior year. The increase occurred primarily within the BA segment due to changes in product mix and an increase in warranty expense. We expect that our cost of equipment revenue will vary with changes in equipment revenue.

### Engineering, Design and Development Expenses:

Engineering, design and development expenses increased 25.8% to \$87.4 million for the year ended December 31, 2015 as compared with \$69.5 million for the prior year due to increases in the CA-NA and BA segments, while the CA-ROW segment remained relatively flat.

Engineering, design and development expenses for the CA-NA and BA segments increased 51.0% and 22.3%, for the year ended December 31, 2015, respectively, as compared with the prior year due to higher personnel expenses (which includes bonus and stock-based compensation expense) in connection with the development of next generation products and technologies and STCs.

### Sales and Marketing Expenses:

Sales and marketing expenses increased 33.3% to \$56.1 million for the year ended December 31, 2015 as compared with \$42.1 million for the prior year due to increases in all three segments due primarily to an increase in personnel expense (including bonus and stock-based compensation expense) outside services, consulting services and marketing related activities to support the growth of the business and new product launches. Consolidated sales and marketing expenses as a percentage of total consolidated revenue was 11.2% for the year ended December 31, 2015 as compared with 10.3% for the prior year.

### General and Administrative Expenses:

General and administrative expenses increased 22.7% to \$86.8 million for the year ended December 31, 2015 as compared with \$70.7 million for the prior year due to increases in all three segments. Consolidated general and administrative expenses as a percentage of total consolidated revenue remained steady at 17.3% for the years ended December 31, 2015 and 2014.

The increase in the CA-NA segment's general and administrative expenses of 30.0% for the year ended December 31, 2015 over the prior year was due primarily to an increase in personnel related expenses (which includes bonus and stock-based compensation expense) and an increase in rent expense as we leased new office facilities (which includes the impact of overlapping leases in the current year).

The increase in the CA-ROW segment's general and administrative expenses of 6.6% for the year ended December 31, 2015 over the prior year was due primarily to an increase in rent, which resulted from a ramp-up in CA-ROW activities as we continued our international expansion.

The increase in the BA segment's general and administrative expenses of 3.1% for the year ended December 31, 2015 over the prior year was due primarily to an increase in personnel related expenses (which includes bonuses and stock-based compensation expense) to manage the growth of the business offset in part by a decrease in rent expense as the prior year had overlapping leases for a larger portion of the year as compared with the current year, a decrease in legal fees and a decrease in taxes.

### Segment Profit (Loss):

CA-NA's segment profit increased 61.4% to \$41.9 million for the year ended December 31, 2015 as compared with \$26.0 million for the prior year due to increases in service revenue partially offset by increases in operating expenses, as discussed above.

BA's segment profit increased 14.1% to \$71.9 million for the year ended December 31, 2015 as compared with \$63.0 million for the prior year due to increases in service revenue, partially offset by increases in operating expenses and a decrease in equipment revenue, as discussed above.

CA-ROW's segment loss decreased 2.2% to \$76.4 million for the year ended December 31, 2015 as compared with \$78.1 million for the prior year due to an increase in service revenue, partially offset by an increase in operating expenses, as discussed above.

### Depreciation and Amortization:

Depreciation and amortization expense increased 35.0% to \$87.0 million for the year ended December 31, 2015 as compared with \$64.5 million for the prior year due to the increase in the number of aircraft outfitted with our airborne equipment by our CA-ROW and CA-NA segments, as well as leasehold improvements and furniture and fixtures associated with our new office facilities.

#### Other (Income) Expense:

Other (income) expense and percent change for the years ended December 31, 2015 and 2014 were as follows (in thousands, except for percent change):

	For the Ended Dec	% Change 2015 over	
	2015	2014	2013 0ver
Interest income	\$ (181)	\$ (61)	196.7%
Interest expense	58,889	32,738	79.9%
Write off of deferred financing costs	2,251	_	n/a
Other expense	574	9	6,277.8%
Total	\$61,533	\$32,686	88.3%

Total other expense was \$61.5 million for the year ended December 31, 2015 as compared to \$32.7 million for the prior year. The increase in interest expense was due to higher average debt levels outstanding during 2015 as compared with the prior year as a result of the amendment to the Amended Senior Term Facility entered into on July 30, 2014 and the issuance of Convertible Notes in March 2015. Interest expense also increased due to accretion expense and amortization of deferred financing costs associated with the Convertible Notes. See Note 6, "Long-Term Debt and Other Liabilities," in our consolidated financial statements for additional information. See Note 7, "Interest Costs," in our consolidated financial statements for additional information related to our interest expense. Additionally, the year ended December 31, 2015 includes the write off of deferred financing costs.

#### Income Taxes:

The effective income tax rate for the year ended December 31, 2015 was (1.2%) as compared with (1.4%) for the prior year. Income tax expense recorded in each period was similar, with differences in pre-tax income causing the change in the effective tax rate. The difference between our effective tax rates and the U.S. federal statutory rate of 35% for the year ended December 31, 2015 and 2014 was primarily due to the recording of a valuation allowance against our net deferred tax assets which is excluded from taxable income (loss).

#### **Non-GAAP Measures**

In our discussion below, we discuss certain non-GAAP financial measurements, including Adjusted EBITDA, Adjusted Net Loss, Adjusted Net Loss Per Share and Cash CapEx as defined below. Management uses Adjusted EBITDA and Cash CapEx for business planning purposes, including managing our business against internally projected results of operations and measuring our performance and liquidity. Management prepares Adjusted Net Loss and Adjusted Net Loss Per Share for investors, securities analysts and other users of our financial statements for use in evaluating our performance under our current capital structure. These supplemental performance measures also provide another basis for comparing period-to-period results by excluding potential differences caused by non-operational and unusual or non-recurring items. These supplemental performance measurements may vary from and may not be comparable to similarly titled measures by other companies. Adjusted EBITDA, Adjusted Net Loss, Adjusted Net Loss Per Share and Cash CapEx are not recognized measurements under accounting principles generally accepted in the United States, or GAAP, and when analyzing our performance or liquidity, as applicable, investors should (i) evaluate each adjustment in our reconciliation to net loss attributable to common stock, and the explanatory footnotes regarding those adjustments, (ii) use Adjusted EBITDA, Adjusted Net Loss and Adjusted Net Loss Per Share in addition to, and not as an alternative to, net loss attributable to common stock as a measure of operating results, and (iii) use Cash CapEx in addition to, and not as an alternative to, consolidated capital expenditures when evaluating our liquidity.

#### Definition and Reconciliation of Non-GAAP Measures

<u>EBITDA</u> represents net income (loss) attributable to common stock before income taxes, interest income, interest expense, depreciation expense and amortization of other intangible assets.

Adjusted EBITDA represents EBITDA adjusted for (i) stock-based compensation expense, (ii) amortization of deferred airborne lease incentives (iii) loss on extinguishment of debt and (iv) adjustment to deferred financing costs. Our management believes that the use of Adjusted EBITDA eliminates items that, management believes, have less bearing on our operating performance, thereby highlighting trends in our core business which may not otherwise be apparent. It also provides an assessment of controllable expenses, which are indicators management uses to determine whether current spending decisions need to be adjusted in order to meet financial goals and achieve optimal financial performance.

We believe the exclusion of stock-based compensation expense from Adjusted EBITDA is appropriate given the significant variation in expense that can result from using option pricing models to determine the fair value of such compensation. The fair value of our stock options is determined using option pricing models and varies based on fluctuations in the assumptions used in the models, including inputs that are not necessarily directly related to the performance of our business, such as the expected volatility, the risk-free interest rate and the expected life of the options. Therefore, we believe the exclusion of this cost provides a clearer view of the operating performance of our business. Further, stock option grants made at a certain price and point in time do not necessarily reflect how our business is performing at any particular time. While we believe that investors should have information about any dilutive effect of outstanding options and the cost of that compensation, we also believe that stockholders should have the ability to consider our performance using a non-GAAP financial measure that excludes these costs and that management uses to evaluate our business.

We believe the exclusion of the amortization of deferred airborne lease incentives from Adjusted EBITDA is useful as it allows an investor to view operating performance across time periods in a manner consistent with how management measures segment profit and loss (see Note 10, "Business Segments and Major Customers," for a description of segment profit (loss) in our consolidated financial statements). Management evaluates segment profit and loss in this manner, excluding the amortization of deferred airborne lease incentives, because such presentation reflects operating decisions and activities from the current period, without regard to the prior period decision or the form of connectivity agreements. See "—Key Components of Consolidated Statements of Operations—Cost of Service Revenue—Commercial Aviation North America and Rest of World" for a discussion of the accounting treatment of deferred airborne lease incentives.

We believe it is useful to an understanding of our operating performance to exclude the loss on extinguishment of debt and adjustment to deferred financing costs from Adjusted EBITDA because of the non-recurring nature of these charges.

We also present Adjusted EBITDA as a supplemental performance measure because we believe that this measure provides investors, securities analysts and other users of our financial statements with important supplemental information with which to evaluate our performance and to enable them to assess our performance on the same basis as management.

Adjusted Net Loss Per Share represents net loss attributable to common stock per share—basic and diluted, adjusted to reflect the number of shares of common stock outstanding as of December 31, 2016 under our current capital structure, after giving effect to the shares of our common stock effectively repurchased as part of the Forward Transactions entered into in connection with the issuance of the Convertible Notes. We present Adjusted Net Loss Per Share to provide investors, securities analysts and other users of our financial statements with important supplemental information with which to evaluate our performance considering our current capital structure and the shares outstanding after giving effect to the Forward Transactions.

<u>Cash CapEx</u> represents capital expenditures net of airborne equipment proceeds received from the airlines and incentives paid to us by landlords under certain facilities leases. We believe Cash CapEx provides a more representative indication of our liquidity requirements with respect to capital expenditures, as under certain agreements with our airline partners, we are reimbursed for all or a substantial portion of the cost of our airborne equipment, thereby reducing our cash capital requirements.

# Gogo Inc. and Subsidiaries Reconciliation of GAAP to Non-GAAP Measures

(in thousands, except per share amounts) (unaudited)

	For the Years Ended December 31,		
	2016	2015	2014
Adjusted EBITDA:			
Net loss attributable to common stock (GAAP)	\$(124,505)	\$(107,613)	\$ (84,538)
Interest expense	83,647	58,889	32,738
Interest income	(1,635)	(181)	(61)
Income tax provision	1,314	1,238	1,183
Depreciation and amortization	105,642	87,036	64,451
EBITDA	64,463	39,369	13,773
Stock-based compensation expense	17,621	15,299	9,816
Amortization of deferred airborne lease incentives	(29,519)	(20,163)	(12,769)
Loss on extinguishment of debt	15,406		
Adjustment of deferred financing costs	(792)	2,251	_
Adjusted EBITDA	\$ 67,179	\$ 36,756	\$ 10,820
Adjusted Net Loss and Adjusted Net Loss Per Share:			
Net Loss (GAAP)	<u>\$(124,505)</u>	<u>\$(107,613)</u>	\$ (84,538)
Basic and diluted weighted average shares outstanding (GAAP)	78,915	79,701	85,147
Adjustment of shares to our current capital structure		(786)	(6,232)
Adjusted shares outstanding	78,915	78,915	78,915
Adjusted Net Loss Per Share—basic and diluted	\$ (1.58)	\$ (1.36)	\$ (1.07)
Cash CapEx:			
Consolidated capital expenditures (GAAP) (1)	\$(176,881)	\$(153,148)	\$(149,563)
Change in deferred airborne lease incentives (2)	14,550	37,063	29,503
Amortization of deferred airborne lease incentives (2)	29,241	19,934	12,508
Landlord incentives		16,201	9,679
Cash CapEx	\$(133,090)	\$ (79,950)	\$ (97,873)

<sup>(1)</sup> See consolidated statements of cash flows.

Material limitations of Non-GAAP measures

Although EBITDA, Adjusted EBITDA, Adjusted Net Loss, Adjusted Net Loss Per Share and Cash CapEx are measurements frequently used by investors and securities analysts in their evaluations of companies, EBITDA, Adjusted EBITDA, Adjusted Net Loss, Adjusted Net Loss Per Share and Cash CapEx each have limitations as an analytical tool, and you should not consider them in isolation or as a substitute for, or more meaningful than, amounts determined in accordance with GAAP.

### Some of these limitations are:

- EBITDA and Adjusted EBITDA do not reflect interest income or expense;
- EBITDA and Adjusted EBITDA do not reflect cash requirements for our income taxes;

<sup>(2)</sup> Excludes deferred airborne lease incentives associated with STCs for the years ended December 31, 2016, 2015 and 2014 as STC costs are expensed as incurred as part of Engineering, Design and Development.

- EBITDA and Adjusted EBITDA do not reflect depreciation and amortization, which are significant and unavoidable operating costs given the level of capital expenditures needed to maintain our business;
- Adjusted EBITDA does not reflect non-cash components related to employee compensation;
- Adjusted Net Loss and Adjusted Net Loss Per Share do not reflect our preferred stock related components or the actual outstanding common shares of our then existing capital structure for the periods presented;
- Cash CapEx does not reflect the full extent of capital investments we have made in our operations; and
- Other companies in our or related industries may calculate these measures differently from the way we do, limiting their usefulness as comparative measures.

### **Liquidity and Capital Resources**

The following table presents a summary of our cash flow activity for the periods set forth below (in thousands):

	For the Years Ended December 31,				
	2016	2015	2014		
Net cash provided by operating activities	\$ 64,988	\$ 104,856	\$ 28,972		
Net cash used in investing activities	(295,559)	(292,815)	(231,972)		
Net cash provided by financing activities	201,053	203,221	67,995		
Effect of foreign exchange rate changes on cash	(522)	785	(42)		
Net increase (decrease) in cash and cash equivalents	(30,040)	16,047	(135,047)		
Cash and cash equivalents at the beginning of period	147,342	131,295	266,342		
Cash and cash equivalents at the end of period	<u>\$ 117,302</u>	<u>\$ 147,342</u>	<u>\$ 131,295</u>		
Supplemental information:					
Short-term investments	\$ 338,477	\$ 219,491	\$ 79,941		

We have historically financed our growth and cash needs primarily through the issuance of common stock, non-convertible debt, senior convertible preferred stock, convertible debt, term facilities and cash from operating activities. We continually evaluate our ongoing capital needs in light of increasing demand for our services, capacity requirements, evolving technologies in our industry and related strategic, operational and technological opportunities. We actively consider opportunities to raise additional capital in the public and private markets utilizing one or more of the types of capital raising transactions through which we have historically financed our growth and cash needs, as well as other means of capital raising not previously used by us.

### Senior Secured Notes:

On June 14, 2016 (the "Issue Date"), Gogo Intermediate Holdings LLC ("GIH") (a wholly owned subsidiary of Gogo Inc.) and Gogo Finance Co. Inc. (a wholly owned subsidiary of GIH) (the "Co-Issuer" and, together with GIH, the "Issuers"), issued \$525 million aggregate principal amount of 12.500% senior secured notes due 2022 (the "Senior Secured Notes") under an Indenture, dated as of June 14, 2016 (the "Indenture"), among the Issuers, us, as guarantor, certain subsidiaries of GIH, as guarantors (the "Subsidiary Guarantors" and, together with us, the "Guarantors"), and U.S. Bank National Association, as trustee (in such capacity, the "Trustee") and as collateral agent (in such capacity, the "Collateral Agent"). On December 31, 2016 the outstanding principal balance of the Senior Secured Notes was \$525.0 million.

On January 3, 2017, the Issuers issued \$65 million aggregate principal amount of additional Senior Secured Notes due 2022 (the "Additional Notes"). The Additional Notes were issued at a price equal to 108% of their face value resulting in gross proceeds of \$70.2 million. The Additional Notes have the same terms as the original

Senior Secured Notes (as noted below), except with respect to the issue date and issue price and are treated as a single series for all purposes under the Indenture and the security documents that govern the Additional Notes and the original Senior Secured Notes.

Interest on the Senior Secured Notes will accrue at the rate of 12.500% per annum and will be payable semi-annually in arrears on July 1 and January 1, commencing on January 1, 2017 (other than the Additional Notes, for which interest payments commence on July 1, 2017). The Senior Secured Notes mature on July 1, 2022.

We used a portion of the net proceeds from the issuance of the Senior Secured Notes to repay all indebtedness outstanding under the Amended and Restated Senior Term Facility (as defined below), which we prepaid at par plus 3.0% of the principal amount of the loans prepaid in June 2016 (see below for additional details). We intend to use the remaining net proceeds, including the net proceeds from the Additional Notes, for working capital and other general corporate purposes.

We paid approximately \$11.4 million of loan origination fees and financing costs related to the issuance of the Senior Secured Notes, which has been accounted for as deferred financing costs. The deferred financing costs on our consolidated balance sheet are being amortized over the contractual term of the Senior Secured Notes using the effective interest method. Total amortization expense was \$1.0 million for the year ended December 31, 2016. As of December 31, 2016, the balance of unamortized deferred financing costs related to the Senior Secured Notes was \$10.4 million and is included as a reduction to long-term debt in our consolidated balance sheet. See Note 7, "Interest Costs" for additional information.

The Senior Secured Notes are the senior secured indebtedness of the Issuers and are:

- effectively senior to all of the Issuers' existing and future senior unsecured indebtedness and the
  Issuers' indebtedness secured on a junior priority basis by the same collateral securing the Senior
  Secured Notes, if any, in each case to the extent of the value of the collateral securing the Senior
  Secured Notes;
- effectively senior in right of payment to all of the Issuers' future indebtedness that is subordinated in right of payment to the Senior Secured Notes;
- effectively equal in right of payment with the Issuers' existing and future (i) unsecured indebtedness that is not subordinated in right of payment to the Senior Secured Notes and (ii) indebtedness secured on a junior priority basis by the same collateral securing the Senior Secured Notes, if any, in each case to the extent of any insufficiency in the collateral securing the Senior Secured Notes;
- structurally senior to all of our existing and future indebtedness, including our Convertible Notes (as
  defined below); and
- structurally subordinated to all of the indebtedness and other liabilities of any non-Guarantors (other than the Issuers).

The Senior Secured Notes are guaranteed, on a senior secured basis, by us and all of GIH's existing and future domestic restricted subsidiaries (other than the Co-Issuer), subject to certain exceptions. The Issuers' obligations under the Senior Secured Notes are not guaranteed by Gogo International Holdings, LLC, a subsidiary of ours that holds no material assets other than equity interests of our foreign subsidiaries. Each guarantee is a senior secured obligation of such Guarantor and is:

- effectively senior to all of such Guarantor's existing and future senior unsecured indebtedness and such Guarantor's indebtedness secured on a junior priority basis by the same collateral, if any, securing the guarantee of such Guarantor, in each case to the extent of the value of the collateral securing such guarantee;
- effectively senior in right of payment to all of such Guarantor's future indebtedness that is subordinated in right of payment to such Guarantor's guarantee;

- effectively equal in right of payment with all of such Guarantor's existing and future (i) unsecured indebtedness that is not subordinated in right of payment to such Guarantor's guarantee, and
   (ii) indebtedness secured on a junior priority basis by the same collateral, if any, securing the guarantee of such Guarantor, in each case to the extent of any insufficiency in the collateral securing such guarantee; and
- structurally subordinated to all indebtedness and other liabilities of any non-Guarantor subsidiary of such Guarantor (excluding, in the case of our guarantee, the Issuers).

The Senior Secured Notes and the related guarantees are secured by first-priority liens, subject to permitted liens, on substantially all of the Issuers' and the Guarantors' assets, except for certain excluded assets, including pledged equity interests of the Issuers and all of our existing and future domestic restricted subsidiaries guaranteeing the Senior Secured Notes.

The security interests in certain collateral may be released without the consent of holders of the Senior Secured Notes if such collateral is disposed of in a transaction that complies with the Indenture and related security agreements. In addition, under certain circumstances, we and the Guarantors have the right to transfer certain intellectual property assets that on the Issue Date constitute collateral securing the Senior Secured Notes or the guarantees to a restricted subsidiary organized under the laws of Switzerland, resulting in the release of such collateral without consent of the holders of the Senior Secured Notes.

On or after July 1, 2019, the Issuers may, at their option, at any time or from time to time, redeem any of the Senior Secured Notes in whole or in part. The Senior Secured Notes will be redeemable at the following redemption prices (expressed in percentages of principal amount), plus accrued and unpaid interest, if any, to (but not including) the redemption date (subject to the right of holders of record on the relevant regular record date that are on or prior to the redemption date to receive interest due on an interest payment date), if redeemed during the twelve-month period commencing on July 1 of the following years:

Year	Redemption Price
2019	106.250%
2020	103.125%
2021 and thereafter	100.000%

In addition, at any time prior to July 1, 2019, the Issuers may redeem up to 35% of the aggregate principal amount of the Senior Secured Notes with the proceeds of certain equity offerings at a redemption price of 112.500% of their principal amount, plus accrued and unpaid interest, if any, to (but not including) the date of redemption; provided, however, that Senior Secured Notes representing at least 65% of the principal amount of the Senior Secured Notes remain outstanding immediately after each such redemption.

The Issuers may redeem the Senior Secured Notes, in whole or in part, at any time prior to July 1, 2019, at a redemption price equal to 100% of the principal amount of the Senior Secured Notes redeemed plus the makewhole premium set forth in the Indenture as of, and accrued and unpaid interest, if any, to (but not including) the applicable redemption date.

The Indenture contains covenants that, among other things, limit the ability of the Issuers and the Subsidiary Guarantors and, in certain circumstances, our ability, to: incur additional indebtedness; pay dividends, redeem stock or make other distributions; make investments; create restrictions on the ability of our restricted subsidiaries to pay dividends to the Issuers or make other intercompany transfers; create liens; transfer or sell assets; merge or consolidate; and enter into certain transactions with the Issuers' affiliates, including us. Most of these covenants will cease to apply if, and for as long as, the Senior Secured Notes have investment grade ratings from both Moody's Investment Services, Inc. and Standard & Poor's.

If we or the Issuers undergo specific types of change of control prior to July 1, 2022, GIH is required to make an offer to repurchase for cash all of the Senior Secured Notes at a repurchase price equal to 101% of the principal amount thereof, plus accrued and unpaid interest, if any, to (but not including) the payment date.

The Indenture provides for events of default, which, if any of them occur, would permit or require the principal, premium, if any, and interest on all the then outstanding Senior Secured Notes issued under the Indenture to be due and payable immediately. As of December 31, 2016, no event of default had occurred.

#### Convertible Notes:

On March 3, 2015, we issued \$340.0 million aggregate principal amount of 3.75% Convertible Senior Notes due 2020 (the "Convertible Notes") in a private offering to qualified institutional buyers, pursuant to Rule 144A under the Securities Act. We granted an option to the initial purchasers to purchase up to an additional \$60.0 million aggregate principal amount of Convertible Notes to cover over-allotments, of which \$21.9 million was subsequently exercised during March 2015, resulting in a total issuance of \$361.9 million aggregate principal amount of Convertible Notes. The Convertible Notes mature on March 1, 2020, unless earlier repurchased or converted into shares of our common stock under certain circumstances described below. Upon maturity, we have the option to settle our obligation through cash, shares of common stock, or a combination of cash and shares of common stock. We pay interest on the Convertible Notes semi-annually in arrears on March 1 and September 1 of each year. Interest payments began on September 1, 2015.

The \$361.9 million of proceeds received from the issuance of the Convertible Notes was initially allocated between long-term debt (the liability component) at \$261.9 million, and additional paid-in-capital (the equity component) at \$100.0 million, within the consolidated balance sheet. The fair value of the liability component was measured using rates determined for similar debt instruments without a conversion feature. The carrying amount of the equity component, representing the conversion option, was determined by deducting the fair value of the liability component from the aggregate face value of the Convertible Notes. If we or the note holders elect not to settle the debt through conversion, we must settle the Convertible Notes at face value. Therefore, the liability component will be accreted up to the face value of the Convertible Notes, which will result in additional non-cash interest expense being recognized within the consolidated statements of operations through the Convertible Notes maturity date (see Note 7, "Interest Costs" for additional information). The effective interest rate on the Convertible Notes, including accretion of the notes to par and debt issuance cost amortization, was approximately 11.5%. The equity component will not be remeasured as long as it continues to meet the conditions for equity classification.

As of December 31, 2016 and 2015, the outstanding principal on the Convertible Notes was \$361.9 million, the unamortized debt discount was \$69.9 million and \$87.4 million, respectively, and the net carrying amount of the liability component was \$292.0 million and \$274.5 million, respectively.

We incurred approximately \$10.4 million of issuance costs related to the issuance of the Convertible Notes of which \$7.5 million and \$2.9 million were recorded to deferred financing costs and additional paid-in capital, respectively, in proportion to the allocation of the proceeds of the Convertible Notes. The \$7.5 million recorded as deferred financing costs on our consolidated balance sheet is being amortized over the term of the Convertible Notes using the effective interest method. Total amortization expense of the deferred financing costs was \$1.4 million and \$1.0 million, respectively, for the years ended December 31, 2016 and 2015. Amortization expense is included in interest expense in the consolidated statements of operations. As of December 31, 2016 and 2015, the balance of unamortized deferred financing costs related to the Convertible Notes was \$5.1 million and \$6.5 million, respectively, and is included as a reduction to long-term debt in our consolidated balance sheets. See Note 7, "Interest Costs" for additional information.

The Convertible Notes had an initial conversion rate of 41.9274 common shares per \$1,000 principal amount of Convertible Notes, which is equivalent to an initial conversion price of approximately \$23.85 per

share of our common stock. Upon conversion, we currently expect to deliver cash up to the principal amount of the Convertible Notes then outstanding. With respect to any conversion value in excess of the principal amount, we currently expect to deliver shares of our common stock. We may elect to deliver cash in lieu of all or a portion of such shares. The shares of common stock subject to conversion are excluded from diluted earnings per share calculations under the if-converted method as their impact is anti-dilutive.

Holders may convert the Convertible Notes, at their option, in multiples of \$1,000 principal amount at any time prior to December 1, 2019, but only in the following circumstances:

- during any fiscal quarter beginning after the fiscal quarter ended June 30, 2015, if the last reported sale price of our common stock for at least 20 trading days (whether or not consecutive) during the last 30 consecutive trading days of the immediately preceding fiscal quarter is greater than or equal to 130% of the conversion price of the Convertible Notes on each applicable trading day;
- during the five business day period following any five consecutive trading day period in which the trading price for the Convertible Notes is less than 98% of the product of the last reported sale price of our common stock and the conversion rate for the Convertible Notes on each such trading day; or
- upon the occurrence of specified corporate events.

None of the above events allowing for conversion prior to December 1, 2019 occurred during the year ended December 31, 2016. Regardless of whether any of the foregoing circumstances occurs, a holder may convert its Convertible Notes, in multiples of \$1,000 principal amount, at any time on or after December 1, 2019 until maturity.

In addition, if we undergo a fundamental change (as defined in the indenture governing the Convertible Notes), holders may, subject to certain conditions, require us to repurchase their Convertible Notes for cash at a price equal to 100% of the principal amount of the Convertible Notes to be purchased, plus any accrued and unpaid interest. In addition, if specific corporate events occur prior to the maturity date, we will increase the conversion rate for a holder who elects to convert its Convertible Notes in connection with such a corporate event in certain circumstances.

In connection with the issuance of the Convertible Notes, we paid approximately \$140 million to enter into prepaid forward stock repurchase transactions (the "Forward Transactions") with certain financial institutions (the "Forward Counterparties"), pursuant to which we purchased approximately 7.2 million shares of common stock for settlement on or around the March 1, 2020 maturity date for the Convertible Notes, subject to the ability of each Forward Counterparty to elect to settle all or a portion of its Forward Transactions early. As a result of the Forward Transactions, total shareholders' equity within our consolidated balance sheet was reduced by approximately \$140 million. Approximately 7.2 million shares of common stock that will be effectively repurchased through the Forward Transactions are treated as retired shares for basic and diluted EPS purposes although they remain legally outstanding.

### Amended and Restated Senior Term Facility:

On July 30, 2014, GIH, Gogo Business Aviation LLC, f/k/a Aircell Business Aviation Services LLC ("GBA"), and Gogo LLC, as borrowers (collectively, the "Borrowers"), entered into an Amendment and Restatement Agreement (the "Amendment") to the Credit Agreement dated as of June 21, 2012 and amended on April 4, 2013 (the "Amended Senior Term Facility") among the Borrowers, the lenders named therein, and Morgan Stanley Senior Funding, Inc., as Administrative Agent and Collateral Agent. We refer to the Amendment and the Amended Senior Term Facility collectively as the "Amended and Restated Senior Term Facility."

On June 14, 2016 the outstanding principal balance of \$287.7 million, together with accrued and unpaid interest, was paid in full, and the Amended and Restated Senior Term Facility was terminated in accordance with

its terms on such date (subject to the survival of provisions expressly stated therein to survive the termination thereof). Additionally, we paid the voluntary prepayment premium of 3.0% or \$8.6 million and wrote off all of the remaining unamortized deferred financing costs of \$6.8 million. Both of these items are included in loss on extinguishment of debt in our consolidated financial statements. As of December 31, 2015, \$301.5 million was outstanding under the Amended and Restated Senior Term Facility. See Note 6, "Long-Term Debt and Other Liabilities," for further information on our Amended and Restated Senior Term Facility.

#### Restricted cash:

Our restricted cash balances were \$7.9 million and \$7.5 million as of December 31, 2016 and 2015, respectively, primarily consisting of letters of credit. Certain of the letters of credit require us to maintain restricted cash accounts in a similar amount, and are issued for the benefit of the landlords at our current office locations in Chicago, IL; Bensenville, IL and Broomfield, CO.

### Liquidity:

Although we can provide no assurances, we currently believe that cash, cash equivalents and short-term investments on hand as of December 31, 2016 will be sufficient to meet our working capital and capital expenditure requirements for at least the next twelve months, including installing our ATG-4 and Ku equipment on certain aircraft operated by our airline partners, costs related to international expansion, costs associated with launching and installing our 2Ku technology and costs associated with developing our next generation ATG solution. Excluding the impact of the IPO, the Amended and Restated Senior Term Facility, the Convertible Notes and the Senior Secured Notes, we have not generated positive cash flows on a consolidated basis, and our ability to do so will depend in large part on our ability to increase revenue in each of our three business segments. In addition, our ability to generate positive cash flows from operating activities and the timing of certain capital and other necessary expenditures are subject to numerous variables, such as costs related to international expansion and execution of our current technology roadmap, including 2Ku, next generation ATG and other potential future technologies. We currently believe that cash on hand (including short-term investments) and cash flows provided by operating activities and, if necessary, additional equity, will be sufficient to meet our liquidity needs in the longer-term, including our continued international expansion and execution of our current technology roadmap. The Indenture governing our Senior Secured Notes contains covenants that limit the ability of GIH and its subsidiaries to incur additional indebtedness. As of December 31, 2016, and after giving effect to the issuance of the Additional Notes, the remaining permitted indebtedness for GIH and its subsidiaries was approximately \$9.1 million. Additionally, the Indenture governing the Senior Secured Notes limits the amount of cash GIH and its subsidiaries may distribute to us, including cash distributed to us to pay interest on the Convertible Notes or to pay any interest on indebtedness incurred, or dividends on preferred stock issued by us to refinance, replace, renew or refund the Convertible Notes. Further, market conditions may limit our access to additional sources of equity or debt financing. As a result, we may be unable to finance growth of our business to the extent that our cash on hand (including short-term investments) and cash generated through operating activities prove insufficient and we are unable to raise additional financing through the issuance of our equity or through permitted incurrences of debt by us or by GIH and its subsidiaries.

### Cash flows provided by Operating Activities:

The following table presents a summary of our cash flows from operating activities for the periods set forth below (in thousands):

	For the Years Ended December 31,					
	2016	2015	2014			
Net loss	\$(124,505)	\$(107,613)	\$(84,538)			
Non-cash charges and credits	164,598	125,181	81,657			
Changes in operating assets and liabilities	24,895	87,288	31,853			
Net cash provided by operating activities	\$ 64,988	\$ 104,856	\$ 28,972			

For the year ended December 31, 2016, cash provided by operating activities was \$65.0 million as compared with \$104.9 million for the prior year. The principal contributors to the decrease in operating cash flows were:

- A \$62.4 million decrease in cash flows related to changes in operating assets and liabilities resulting from:
  - A decrease in cash flows due to the following:
    - Changes in BA's inventory due to an increase in equipment purchases during 2016, while inventory balances remained relatively steady during 2015;
    - Changes in CA-NA's deferred rent due to the increase in deferred rent balances during the first quarter of 2015 resulting from the commencement of new facilities leases during 2014, while deferred rent balances remained relatively steady during 2016;
    - Changes in all three segments' prepaid expenses and other current assets. The change in CA-NA and CA-ROW was due to payments on development services during 2016 while no such activities occurred in 2015 and the timing of payment on satellite services. The change in BA was due to deposit payments made on certain inventory items during the first quarter of 2016, while no such payments were made in 2015, and an increase in deferred cost of equipment associated with the commencement of a new sales program in 2016;
    - Changes in CA-ROW's deferred airborne lease incentives due to more installations during 2015 as compared with 2016;
    - Changes in CA-NA's accrued liabilities primarily due to the timing of payments;
    - Changes in CA-ROW's accounts receivable due to the increase in accounts receivable balances as a result of an increase in activities;
    - Changes in CA-NA's other non-current assets and liabilities due to an increase in deferred
      cost of equipment associated with one of our airline partners that did not meet all the criteria
      for a sale.
  - Partial offsets to the above due to increases in cash flows from the following:
    - An increase in accrued interest expense resulting from the issuance of the Senior Secured Notes:
    - Changes in CA-NA's and BA's accounts receivable due to the timing of collections;
    - Changes in CA-NA's deferred airborne lease incentives due to more expensive aircraft being installed during 2016 as compared with 2015.
- The decrease in cash flows related to changes in operating assets and liabilities was partially offset by a \$22.5 million change in net loss adjusted for non-cash charges and credits that was due primarily to increases in the CA-NA, BA and CA-ROW segments' service revenues partially offset by increased spending in all three segments, as noted above under "—Results of Operations."

We anticipate cash flows from changes in operating assets and liabilities to be impacted by deferred airborne lease incentives, which we estimate will range from \$60 million to \$70 million for the year ending December 31, 2017 and \$40 million to \$50 million for the year ended December 31, 2018. See "—Capital Expenditures" below for further information.

For the year ended December 31, 2015, cash provided by operating activities was \$104.9 million as compared with \$29.0 million for the prior year. The principal contributors to the increase in operating cash flows were:

• a \$20.4 million change in net loss adjusted for non-cash charges and credits that was due primarily to increases in the CA-NA, BA and CA-ROW segments' service revenues partially offset by increased spending in all three segments, as noted above under "—Results of Operations"; and

- a \$55.4 million increase in cash flows related to changes in operating assets and liabilities resulting from:
  - An increase in cash flows due to the following:
    - Changes in CA-NA's deferred rent related to the commencement of the new office location in Chicago, IL during 2014;
    - Changes in CA-NA's deferred revenue due to an increase in subscription-based products, buy-before-you-fly user purchase options and equipment transactions associated with one of our airline partners as we have not yet met all the conditions to recognize revenue;
    - Changes in CA-NA's accounts receivable due to receivables building more throughout 2014 as compared with 2015;
    - Changes in CA-NA, BA and CA-ROW's accrued liabilities primarily due to the timing of payments;
    - Changes in BA's inventories due to inventory remaining relatively consistent during 2015 after building throughout 2014;
    - Changes in CA-NA and CA-ROW's deferred airborne lease incentives due to additional installations of our equipment in 2015; and
    - Changes in accrued interest due to the issuance of the Convertible Notes in March 2015.
  - Partial offsets to the above due to decreases in cash flows from the following:
    - Changes in BA's accounts receivable due to an increase in receivables as a result of an increase in service revenue;
    - Changes in CA-NA and BA's accounts payable due to the timing of payments; and
    - Changes in BA's deferred rent due to the building of deferred rent balances throughout 2014 due to the commencement of the new BA lease in 2014, while deferred rent balances did not build as much in 2015.

### Cash flows used in Investing Activities:

Cash used in investing activities of \$295.6 million, \$292.8 million and \$232.0 million for the years ended December 31, 2016, 2015 and 2014, respectively, is primarily for capital expenditures related to airborne equipment, software development, data center upgrades, cell site construction and build out of our new office locations. See "—Capital Expenditures" below. Additionally, cash used in investing activities includes net changes in our short-term investments of \$119.0 million, \$139.6 million and \$79.9 million, respectively, for the years ended December 31, 2016, 2015 and 2014. Included in cash used in investing activities for the year ended December 31, 2014 are letters of credit of \$2.5 million required under the lease for our Broomfield, Colorado office location.

### Cash flows provided by Financing Activities:

Cash provided by financing activities for the year ended December 31, 2016 was \$201.1 million primarily due to the issuance of \$525.0 million of Senior Secured Notes, partially offset by the \$310.1 million repayment in full of the Amended and Restated Credit Agreement (including the early prepayment penalty of approximately \$8.6 million), the payment of debt issuance costs for the Senior Secured Notes of \$11.5 million (\$10.6 million related to the issuance of Senior Secured Notes in June 2016 and \$0.9 million related to the issuance in January 2017) and capital lease payments of \$2.6 million.

Cash provided by financing activities for the year ended December 31, 2015 was \$203.2 million primarily due to proceeds from the issuance of the Convertible Notes of \$361.9 million and proceeds from stock-based

award activities of \$4.6 million, partially offset by payments associated with the Forward Transactions of \$140.0 million, the payment of debt issuance costs of \$12.6 million and payments on our debt facilities and capital leases of \$10.7 million.

Cash provided by financing activities for the year ended December 31, 2014 was \$68.0 million primarily due to proceeds from the Amended and Restated Senior Term Facility of \$75.0 million and proceeds from stock-based award activities of \$3.1 million partially offset by payments on our debt facilities and capital leases of \$8.6 million and the payment of debt issuance costs of \$1.5 million.

### **Capital Expenditures**

Our operations continue to require significant capital expenditures primarily for technology development, equipment and capacity expansion. Capital expenditures for the CA-NA and CA-ROW segments include the purchase of airborne equipment, which correlates directly to the roll out and/or upgrade of service to our airline partners' fleets. Capital spending is also associated with the expansion of our ATG network and data centers and includes site acquisition, design, permitting, network equipment and construction costs. We capitalize software development costs related to network technology solutions, the Gogo platform and new product/service offerings. We also capitalized costs related to the build out of our new office locations.

Capital expenditures for the years ended December 31, 2016 and 2015 were \$176.9 million and \$153.1 million, respectively. The increase in capital expenditures was due to an increase in airborne equipment purchases, network spending and capitalized software, offset in part by the build out of our new office location in Chicago, IL in 2015 as we had no such activities in the current year.

We anticipate that capital expenditures for the year ending December 31, 2017 will range from \$290 million to \$330 million as we increase purchases of airborne equipment (including 2Ku) that when sold to the airlines will qualify as an operating lease of space, and start next generation ATG network buildout. We expect our capital expenditures, net of deferred airborne lease incentives, which we estimate will range from \$60 million to \$70 million, to range from \$230 million to \$260 million for the year ending December 31, 2017. We anticipate that capital expenditures for the year ending December 31, 2018 will range from \$110 million to \$170 million. We expect our capital expenditures, net of deferred airborne lease incentives, which we estimate will range from \$40 million to \$50 million, to range from \$70 million to \$120 million for the year ending December 31, 2018. The decrease in capital expenditures and related deferred airborne lease incentives in 2018 as compared with 2016 and 2017 primarily reflects our purchases of equipment in 2018 that when sold to airlines will qualify as sales rather than an operating leases of space on aircraft.

Capital expenditures for the years ended December 31, 2015 and 2014 were \$153.1 million and \$149.6 million, respectively. The increase in capital expenditures was due to the build out of our new office location in Chicago, IL and an increase in airborne equipment purchases for the CA-ROW and CA-NA segments, partially offset by a decrease in network spending in CA-NA.

### **Contractual Obligations and Commitments**

The following table summarizes our contractual obligations (including those that require us to make future cash payments) as of December 31, 2016. The future contractual requirements include payments required for our operating leases and contractual purchase agreements (in thousands).

	_	Total	Less than 1 year		1-3 years				More than 5 years	
Contractual Obligations:										
Capital lease obligations	\$	5,293	\$	3,274	\$	2,019	\$	_	\$	_
Operating lease obligations		176,150	1	19,903	3	3,364	2	28,278		94,605
Purchase obligations (1)		104,683	10	04,683		_		—		_
Convertible Notes		361,940		_		_	36	51,940		_
Interest on Convertible Notes (2)		47,505	1	13,573	2	7,146		6,786		_
Senior Secured Notes (3)		525,000		_		_		—		525,000
Interest on Senior Secured Notes (3)		396,849	6	58,724	13	1,250	13	31,250		65,625
Satellite transponder and teleport services		566,041	6	51,887	9	6,095	12	23,830		284,229
Deferred revenue arrangements (4)		71,698	3	32,722	1	4,777		8,175		16,024
Deferred airborne lease incentives (5)		172,156	3	36,277	5	7,443	3	36,133		42,303
Other long-term obligations (6)	_	69,653	1	12,928	1	1,833		5,191		39,701
Total	\$2	2,496,968	\$35	53,971	\$37	3,927	\$70	01,583	\$1,	067,487

- (1) As of December 31, 2016, our outstanding purchase obligations represented obligations to vendors to meet operational requirements as part of the normal course of business and related primarily to information technology, research and development, sales and marketing and production related activities.
- (2) Interest is calculated based on the interest rate in effect at December 31, 2016. See Note 6, "Long-Term Debt and Other Liabilities" for further information.
- (3) Excludes \$65.0 million of Additional Notes issued on January 3, 2017 and related interest. See Note 6, "Long-Term Debt and Other Liabilities" for further information.
- (4) Amounts represent obligations to provide services for which we have already received cash from our customers.
- (5) Amounts represent the upfront payments made by our airline partners for our airborne equipment and payments for STCs. Upfront payments made pursuant to these agreements are accounted for as deferred airborne lease incentives which are amortized on a straight-line basis as a reduction of cost of service revenue over the term of the agreement.
- (6) Other long-term obligations consist of estimated payments (undiscounted) for our asset retirement obligations, network transmission services, obligations to certain airline partners, and Canadian ATG Spectrum License related payments relates to the monthly C\$0.1 million payment over the estimated 25-year term of the agreement, using the December 31, 2016 exchange rate (see Note 16, "Canadian ATG Spectrum License," for further information). Other long-term obligations do not include \$8.3 million related to our deferred tax liabilities due to the uncertainty of their timing.

Contractual Commitments: We have agreements with vendors to provide us with transponder and teleport satellite services. These agreements vary in length and amount and as of December 31, 2016 commit us to purchase transponder and teleport satellite services totaling approximately \$61.9 million in 2017, \$46.9 million in 2018, \$49.2 million in 2019, \$62.2 million in 2020, \$61.7 million in 2021 and \$284.2 million thereafter.

We have agreements with various vendors under which we have remaining commitments to purchase satellite-based systems, certifications and development services. Such commitments will become payable as we receive the equipment or certifications, or as development services are provided.

Leases and Cell Site Contracts: We have lease agreements relating to certain facilities and equipment, which are considered operating leases. Additionally, we have operating leases with wireless service providers for

tower space and base station capacity on a volume usage basis ("cell site leases"), some of which provide for minimum annual payments. See Note 14, "Leases," in our consolidated financial statements for additional information.

The revenue share paid to our airline partners represents operating lease payments and are deemed to be contingent rental payments, as the payments due to each airline are based on a percentage of our CA-NA and CA-ROW service revenue generated from that airline's passengers, which is unknown until realized. As such, we cannot estimate the lease payments due to an airline at the commencement of our contract with such airline. Rental expense related to the arrangements with commercial airlines included in cost of service revenue is primarily comprised of these revenue share payments offset by the amortization of the deferred airborne lease incentive discussed above. See Note 14, "Leases," in our consolidated financial statements for additional information.

One contract with one of our airline partners requires us to provide our airline partner with cash rebates of \$1.8 million in June 2017 and June 2018.

Indemnifications and Guarantees: In accordance with Delaware law, we indemnify our officers and directors for certain events or occurrences while the officer or director is, or was, serving at our request in such capacity. The maximum potential amount of future payments we could be required to make under this indemnification is uncertain and may be unlimited, depending upon circumstances. However, our Directors' and Officers' insurance does provide coverage for certain of these losses.

In the ordinary course of business we may occasionally enter into agreements pursuant to which we may be obligated to pay for the failure of performance of others, such as the use of corporate credit cards issued to employees. Based on historical experience, we believe that the risk of sustaining any material loss related to such guarantees is remote.

We have entered into a number of agreements, including our agreements with commercial airlines, pursuant to which we indemnify the other party for losses and expenses suffered or incurred in connection with any patent, copyright, or trademark infringement or misappropriation claim asserted by a third party with respect to our equipment or services. The maximum potential amount of future payments we could be required to make under these indemnification agreements is uncertain and is typically not limited by the terms of the agreements.

### **Off-Balance Sheet Arrangements**

We do not have any obligations that meet the definition of an off-balance sheet arrangement, other than operating leases, which have or are reasonably likely to have a material effect on our results of operations. See Note 14, "Leases," in our consolidated financial statements.

### Item 7A. Quantitative and Qualitative Disclosures About Market Risk

Our exposure to market risk is currently confined to our cash and cash equivalents, short-term investments and our debt. We have not used derivative financial instruments for speculation or trading purposes. The primary objectives of our investment activities are to preserve our capital for the purpose of funding operations while at the same time maximizing the income we receive from our investments without significantly increasing risk. To achieve these objectives, our investment policy allows us to maintain a portfolio of cash equivalents and short-term investments through a variety of securities, including U.S. Treasuries, U.S. Government Agency Securities, and Money Market Funds. Our cash and cash equivalents as of December 31, 2016 and 2015 primarily included amounts in bank checking accounts and Money Market Funds. We believe that a change in average interest rates would not adversely affect our interest income and results of operations by a material amount.

The risk inherent in our market risk sensitive instruments and positions is the potential loss arising from interest rates as discussed below. The sensitivity analyses presented do not consider the effects that such adverse changes may have on the overall economic activity, nor do they consider additional actions we may take to mitigate our exposure to such changes. However, actual results may differ.

*Interest:* Our earnings are affected by changes in interest rates due to the impact those changes have on interest income generated from our cash, cash equivalents and short-term investments. Our cash and cash equivalents as of December 31, 2016 and December 31, 2015, included amounts in bank checking accounts and money market funds, and our short-term investments are made up of U.S. Treasury bills. We believe we have minimal interest rate risk; a 10% change in the average interest rate on our portfolio would have reduced interest income for the years ended December 31, 2016, 2015 and 2014 by an immaterial amount.

*Inflation:* We do not believe that inflation has had a material effect on our results of operations. However, there can be no assurance that our business will not be affected by inflation in the future.

Seasonality: Our results of operations for any interim period are not necessarily indicative of those for any other interim period of the entire year because the demand for air travel, including business travel, is subject to significant seasonal fluctuations. We generally expect our overall passenger opportunity to be greater in the second and third quarters compared to the rest of the year due to an increase in leisure travel offset in part by a decrease in business travel during the summer months and holidays. We expect seasonality of the air transportation business to continue, which may affect our results of operations in any one period.

# Item 8. Financial Statements and Supplementary Data

## Gogo Inc.

### **Index to Consolidated Financial Statements**

	Page No.
Report of Deloitte & Touche LLP, Independent Registered Public Accounting Firm	94
Consolidated Balance Sheets	95
Consolidated Statements of Operations	96
Consolidated Statements of Comprehensive Loss	97
Consolidated Statements of Cash Flows	98
Consolidated Statements of Stockholders' Equity (Deficit)	99
Notes to Consolidated Financial Statements	100

#### REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors and Stockholders of Gogo Inc. Chicago, Illinois

We have audited the accompanying consolidated balance sheets of Gogo Inc. and subsidiaries (the "Company") as of December 31, 2016 and 2015, and the related consolidated statements of operations, comprehensive loss, stockholders' equity (deficit), and cash flows for each of the three years in the period ended December 31, 2016. These consolidated financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these consolidated financial statements based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, such consolidated financial statements present fairly, in all material respects, the financial position of Gogo Inc. and subsidiaries as of December 31, 2016 and 2015, and the results of their operations and their cash flows for each of the three years in the period ended December 31, 2016, in conformity with accounting principles generally accepted in the United States of America.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the Company's internal control over financial reporting as of December 31, 2016, based on the criteria established in *Internal Control—Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission and our report dated February 27, 2017, expressed an unqualified opinion on the Company's internal control over financial reporting.

/s/ Deloitte & Touche LLP

Chicago, Illinois February 27, 2017

# Gogo Inc. and Subsidiaries Consolidated Balance Sheets

(in thousands, except share and per share data)

	December 31, 2016	December 31, 2015
Assets		
Current assets:		
Cash and cash equivalents Short-term investments	\$ 117,302 338,477	\$ 147,342 219,491
Total cash, cash equivalents and short-term investments	455,779 73,743	366,833 69,317
Accounts receivable, net of allowances of \$499 and \$417, respectively Inventories	50,266	20,937
Prepaid expenses and other current assets	24,942	10,920
Total current assets	604,730	468,007
Non-current assets:		
Property and equipment, net	519,810	434,490
Intangible assets, net	85,175	78,823
Goodwill	620	620
Long-term restricted cash	7,773	7,535
Other non-current assets	28,088	14,878
Total non-current assets	641,466	536,346
Total assets	\$1,246,196	\$1,004,353
Liabilities and Stockholders' equity (deficit) Current liabilities:		
Accounts payable	\$ 31,689	\$ 28,189
Accrued liabilities	132,055	88,690
Accrued airline revenue share	15,521	13,708
Deferred revenue	32,722	24,055
Deferred airborne lease incentives	36,277	21,659
Current portion of long-term debt and capital leases	2,799	21,277
Total current liabilities	251,063	197,578
Non-current liabilities:		
Long-term debt	800,715	542,573
Deferred airborne lease incentives	135,879	121,732
Deferred tax liabilities	8,264	7,425
Other non-current liabilities	90,668	68,850
Total non-current liabilities	1,035,526	740,580
Total liabilities  Commitments and contingencies	1,286,589	938,158
Commitments and contingencies	_	_
Stockholders' equity  Common stock, par value \$0.0001 per share; 500,000,000 shares authorized at December 31, 2016 and 2015; 86,529,907 and 86,137,856 shares issued at December 31, 2016 and 2015, respectively; and 86,295,870 and 85,913,206 shares outstanding at December 31, 2016 and 2015, respectively	9	9
Additional paid-in-capital	879,135	861,243
Accumulated other comprehensive loss	(2,163)	(2,188)
Accumulated deficit	(917,374)	(792,869)
Total stockholders' equity (deficit)	(40,393)	66,195
Total liabilities and stockholders' equity (deficit)	<u>\$1,246,196</u>	<u>\$1,004,353</u>

# Gogo Inc. and Subsidiaries Consolidated Statements of Operations

(in thousands, except per share amounts)

	For the Years Ended December 31,		
	2016	2015	2014
Revenue:			
Service revenue	\$ 514,293	\$ 419,975	\$322,747
Equipment revenue	82,257	80,913	85,744
Total revenue	596,550	500,888	408,491
Operating expenses:			
Cost of service revenue (exclusive of items shown below)	226,078	187,803	172,628
Cost of equipment revenue (exclusive of items shown below)	48,650	40,558	39,723
Engineering, design and development	96,713	87,437	69,519
Sales and marketing	61,177	56,143	42,107
General and administrative	84,927	86,753	70,732
Depreciation and amortization	105,642	87,036	64,451
Total operating expenses	623,187	545,730	459,160
Operating loss	(26,637)	(44,842)	(50,669)
Other (income) expense:			
Interest income	(1,635)	(181)	(61)
Interest expense	83,647	58,889	32,738
Loss on extinguishment of debt	15,406		_
Adjustment of deferred financing costs	(792)	2,251	_
Other (income) expense	(72)	574	9
Total other expense	96,554	61,533	32,686
Loss before income taxes	(123,191)	(106,375)	(83,355)
Income tax provision	1,314	1,238	1,183
Net loss	\$(124,505)	\$(107,613)	\$ (84,538)
Net loss attributable to common stock per share—basic and diluted	\$ (1.58)	\$ (1.35)	\$ (0.99)
Weighted average number of shares—basic and diluted	78,915	79,701	85,147

# Gogo Inc. and Subsidiaries Consolidated Statements of Comprehensive Loss

(in thousands)

	For the Years Ended December 31,		
	2016	2015	2014
Net loss	\$(124,505)	\$(107,613)	\$(84,538)
Currency translation adjustments	25	(988)	(775)
Comprehensive loss	\$(124,480)	\$(108,601)	\$(85,313)

# Gogo Inc. and Subsidiaries Consolidated Statements of Cash Flows

(in thousands)

For the Years Ended December 31,

	Tor the rea	is Bluce De	cember 51,
	2016	2015	2014
Operating activities:		+	
Net loss	\$(124,505)	\$(107,613)	\$ (84,538)
Adjustments to reconcile net loss to cash provided by operating activities:	105 642	97.036	64.451
Depreciation and amortization Loss on asset disposals/abandonments	105,642 4,583	87,036 3,044	64,451 3,389
Deferred income taxes	839	827	828
Stock compensation expense	17,621	15,299	9,816
Loss on extinguishment of debt	15,406		_
Amortization of deferred financing costs	3,803	4,169	3,173
Accretion of debt discount	17,496	12,555	_
Adjustment of deferred financing costs	(792)	2,251	_
Changes in operating assets and liabilities:		(04.7/0)	(22.025)
Accounts receivable	(4,265)	(21,563)	(23,035)
Inventories	(29,329)	976	(8,267)
Prepaid expenses and other current assets	(14,473)	2,717	2,070 8,336
Accounts payable Accrued liabilities	(3,118) 3,836	(4,307) 24,927	(1,823)
Deferred airborne lease incentives	14,652	36,895	30,199
Deferred revenue	26,981	23,895	7,326
Deferred rent	(47)	21,206	13,290
Accrued interest	35,825	4,508	7
Accrued airline revenue share	1,815	439	3,315
Other non-current assets and liabilities	(6,982)	(2,405)	435
Net cash provided by operating activities	64,988	104,856	28,972
Investing activities:			
Proceeds from the sale of property and equipment	84	75	32
Purchases of property and equipment	(148,294)	(135,201)	(132,098)
Acquisition of intangible assets—capitalized software	(28,587)	(17,947)	(17,465)
Purchases of short-term investments	(363,436)	(369,402)	(119,924)
Redemptions of short-term investments	244,450	229,852	39,983
(Increase) decrease in investing restricted cash	224	(192)	(2,500)
Net cash used in investing activities	(295,559)	(292,815)	(231,972)
Financing activities:  Proceeds from issuance of senior secured notes	525,000		
Payments on amended and restated credit agreement	(310,132)	(8,749)	(7,079)
Proceeds from issuance of convertible notes	(310,132)	361,940	(7,079)
Forward transactions	_	(140,000)	_
Proceeds from credit facilities	_	(110,000)	75,000
Payment of debt issuance costs	(11,474)	(12,608)	(1,500)
Payments on capital leases	(2,612)	(1,995)	(1,491)
Stock-based compensation activity	271	4,633	3,065
Net cash provided by financing activities	201,053	203,221	67,995
Effect of exchange rate changes on cash	(522)	785	(42)
Increase (decrease) in cash and cash equivalents Cash and cash equivalents at beginning of period	(30,040) 147,342	16,047 131,295	(135,047) 266,342
Cash and cash equivalents at end of period	\$ 117,302	\$ 147,342	\$ 131,295
Supplemental Cash Flow Information:			
Cash paid for interest	\$ 27,535	\$ 38,677	\$ 29,736
Cash paid for taxes	305	446	414
Non-cash Investing and Financing Activities:			
Purchases of property and equipment in current liabilities	\$ 39,492	\$ 29,305	\$ 30,404
Purchases of property and equipment paid by commercial airlines	13,804	10,163	5,558
Purchases of property and equipment under capital leases	2,177	1,395	3,125
Acquisition of intangible assets in current liabilities	1,623	1,549	1,511
Asset retirement obligation incurred	11	1,181	1,518

# Gogo Inc. and Subsidiaries Consolidated Statements of Stockholders' Equity (Deficit)

(in thousands, except share data)

	Common	n Stock	Additional Paid-In	Accumulated Other Comprehensive	Accumulated	
	Shares	Par Value	Capital	Loss	Deficit	Total
Balance at January 1, 2014 Net loss	84,976,392	\$ 8	\$ 871,325 —	\$ (425)	\$(600,718) (84,538)	\$ 270,190 (84,538)
Currency translation adjustments, net of tax	_	_	_	(775)	_	(775)
Stock-based compensation expense Issuance of common stock upon			9,816	_	_	9,816
exercise of stock options Issuance of common stock upon vesting of restricted stock units	286,141 10,157	1	2,691	_	_	2,692
Tax withholding related to vesting of restricted stock units		_	(41)	_	_	(41)
Issuance of common stock in connection with employee stock			,			,
purchase plan	28,084		414			414
Balance at December 31, 2014  Net loss  Currency translation adjustments,	85,300,774 —	9 —	884,205 —	(1,200)	(685,256) (107,613)	197,758 (107,613)
net of tax	_	_	_	(988)		(988)
Stock-based compensation expense Issuance of common stock upon	_	_	15,299	_	_	15,299
exercise of stock options Issuance of common stock upon vesting of restricted stock units	418,681	_	4,824	_	_	4,824
and restricted stock awards Tax withholding related to vesting	122,633	_	_	_	_	_
of restricted stock units Issuance of common stock in connection with employee stock	_	_	(1,233)	_	_	(1,233)
purchase plan Issuance of Convertible Notes	71,118	_	1,042	_	_	1,042
(including issuance costs) Issuance of Forward Transactions		_	97,106 (140,000)			97,106 (140,000)
Balance at December 31, 2015 Net loss	85,913,206 —	9 —	861,243	(2,188)	(792,869) (124,505)	66,195 (124,505)
Currency translation adjustments, net of tax				25		25
Stock-based compensation expense Issuance of common stock upon	_	_	17,621	_	_	17,621
exercise of stock options  Issuance of common stock upon vesting of restricted stock units	12,150	_	110	_	_	110
and restricted stock awards Tax withholding related to vesting	227,429	_	_	_	_	_
of restricted stock units Issuance of common stock in connection with employee stock	_	_	(1,199)	_	_	(1,199)
purchase plan	143,085		1,360		—	1,360
Balance at December 31, 2016	86,295,870	\$ 9	\$ 879,135	\$(2,163)	\$(917,374)	\$ (40,393)

#### 1. Background

Gogo Inc. ("we", "us", "our") is a holding company, which through its operating subsidiaries is a provider of in-flight connectivity and wireless in-cabin digital entertainment solutions. We operate through the following three segments: Commercial Aviation North America or "CA-NA", Commercial Aviation Rest of World or "CA-ROW" and Business Aviation or "BA". Services provided by our CA-NA and CA-ROW businesses include Passenger Connectivity, which allows passengers to connect to the Internet from their personal Wi-Fi-enabled devices; Passenger Entertainment, which offers passengers the opportunity to enjoy a broad selection of in-flight entertainment options on their personal Wi-Fi enabled devices; and Connected Aircraft Services ("CAS"), which offer airlines connectivity for various operations and currently include, among others, real-time credit card transaction processing, electronic flight bags and real-time weather information. Services are provided by CA-NA on commercial aircraft flying routes that generally begin and end within North America, which for this purpose includes the United States, Canada and Mexico, CA-ROW provides service on commercial aircraft operated by foreign-based commercial airlines and flights outside of North America for North American based commercial airlines. The routes included in our CA-ROW segment are those that begin and/or end outside of North America (as defined above) on which our international service is provided. BA provides in-flight Internet connectivity and other voice and data communications products and services and sells equipment for in-flight telecommunications to the business aviation market. BA services include Gogo Biz, our in-flight broadband service, Passenger Entertainment, our in-flight entertainment service, and satellite-based voice and data services through our strategic alliances with satellite companies.

# 2. Summary of Significant Accounting Policies

**Principles of Consolidation**—The consolidated financial statements include our wholly owned subsidiaries and, prior to its dissolution in 2014, our affiliate, AC Management LLC ("ACM"). All intercompany transactions and account balances have been eliminated.

We were the managing member of ACM, an affiliate whose units were owned by members of management. ACM was established for the sole purpose of providing an ownership stake in us to members of management, and ACM's transactions effectively represent a stock-based compensation plan (see Note 11, "Stock-Based Compensation Expense," for further information). Since we were the managing member of ACM and thereby controlled ACM, including controlling which members of management were granted ownership interests, ACM was included in our consolidated financial statements prior to its dissolution in 2014.

Use of Estimates—The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America ("GAAP") requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities, disclosures of contingent assets and liabilities at the date of the financial statements, and the reported amounts of revenues and expenses during the reporting period. On an ongoing basis, management evaluates the significant estimates and bases such estimates on historical experience and on various other assumptions believed to be reasonable under the circumstances. However, actual results could differ materially from those estimates.

**Revisions**—During the three months ended September 30, 2016, we determined that it was necessary to revise the presentation of our investments in U.S. Treasury bills as short-term investments, rather than as cash and cash equivalents, in the consolidated balance sheets. Therefore, changes in our short-term investments are included in cash flows from investing activities in our consolidated statements of cash flows.

Our short-term investments are comprised of investments in U.S. Treasury bills with remaining maturities at the date of purchase of more than three months but less than twelve months. We have the intent and ability to hold our short-term investments to maturity at the time of purchase and we reevaluate such determination each reporting period. Therefore, we classify our short-term investments as held-to-maturity.

We assessed the materiality of these classification changes, taking into account quantitative and qualitative factors, and determined them to be immaterial to the consolidated balance sheet as of December 31, 2015 and to

the consolidated statement of cash flows for the years ended December 31, 2015 and 2014. There is no impact to the consolidated statements of operations for any period reported.

While these immaterial classification changes could have been reflected prospectively, we elected to revise the previously reported consolidated balance sheet and consolidated statement of cash flows in order to provide greater comparability for the periods presented. Therefore, we have revised the previously reported cash and cash equivalents to reflect the classification of our investments in U.S. Treasury bills as short-term investments on the balance sheet as of December 31, 2015. Additionally, we have revised previously reported net cash used in investing activities in the consolidated statement of cash flows for the years ended December 31, 2015 and 2014 to include changes in our short-term investments.

Below are the line items from our consolidated balance sheet as of December 31, 2015 illustrating the effect of these immaterial revisions (*in thousands*):

	As of December 31, 2015		
	As Reported	Revisions	As Revised
Current assets:			
Cash and cash equivalents	\$366,833	\$(219,491)	\$147,342
Short-term investments		219,491	219,491
Total cash, cash equivalents and short-term investments	366,833		366,833
Accounts receivable, net of allowances	69,317	_	69,317
Inventories	20,937	_	20,937
Prepaid expenses and other current assets	10,920		10,920
Total current assets	\$468,007	\$	\$468,007

Below are the line items from our consolidated statement of cash flows for the years ended December 31, 2015 and 2014 illustrating the effect of these immaterial revisions (*in thousands*):

	Year Ended December 31, 2015			Year Ended December 31, 2014		r 31, 2014
	As reported	Revision	As Revised	As reported	Revision	As Revised
Net cash provided by operating activities	\$ 104,856	<u> </u>	\$ 104,856	\$ 28,972	\$	\$ 28,972
Investing activities:						
Proceeds from the sale of property and						
equipment	75	_	75	32	_	32
Purchases of property and equipment	(135,201)	_	(135,201)	(132,098)	_	(132,098)
Acquisition of intangible assets—capitalized						
software	(17,947)	_	(17,947)	(17,465)	_	(17,465)
Acquisition of short-term investments		(369,402)	(369,402)	_	(119,924)	(119,924)
Redemption of short-term investments	_	229,852	229,852	_	39,983	39,983
Increase in restricted cash	(192)		(192)	(2,500)		(2,500)
Net cash used in investing activities	(153,265)	(139,550)	(292,815)	(152,031)	(79,941)	(231,972)
Net cash provided by financing						
activities	203,221		203,221	67,995		67,995
Effect of exchange rate changes on cash	785		785	(42)		(42)
Increase (decrease) in cash and cash equivalents	155,597	(139,550)	16,047	(55,106)	(79,941)	(135,047)
Cash and cash equivalents at beginning of period	211,236	(79,941)	131,295	266,342		266,342
Cash and cash equivalents at end of period	\$ 366,833	\$(219,491)	\$ 147,342	\$ 211,236	\$ (79,941)	\$ 131,295

**Significant Risks and Uncertainties**—Our operations are subject to certain risks and uncertainties, including without limitation those associated with continuing losses, fluctuations in operating results, funding expansion, strategic alliances, capacity constraints, managing rapid growth and expansion, relationships with customers, suppliers and distributors, financing arrangement terms that may restrict operations, regulatory issues, competition, the economy, technology trends and evolving industry standards.

Cash, Cash Equivalents and Short-Term Investments—We consider cash and cash equivalents to be short-term, highly liquid investments that have the following characteristics: readily convertible to known amounts of cash, so near their maturities that there is insignificant risk of changes in value due to any changes in market interest rates, and having maturities of three months or less when purchased. We continually monitor positions with, and the credit quality of, the financial institutions with which we invest. The carrying amounts reported in the balance sheets for cash and cash equivalents approximate the fair market value of these assets.

We consider short-term investments to be investments with maturities of twelve months or less (but greater than three months). Currently all our short-term investments are comprised of U.S. Treasury bills, which we intend to hold to maturity.

Certain cash amounts are restricted as to use and are classified outside of cash and cash equivalents. See Note 6, "Long-term Debt and Other Liabilities," for further details.

Concentrations of Credit Risk—Financial instruments that potentially subject us to a concentration of credit risk consist principally of cash and cash equivalents, short-term investments and accounts receivable. All cash and cash equivalents are invested with creditworthy financial institutions. We perform ongoing credit evaluations and generally do not require collateral to support receivables. Our short-term investments are all comprised of U.S. Treasury bills.

See Note 10, "Business Segments and Major Customers," for further details.

**Income Tax**—We use an asset and liability-based approach in accounting for income taxes. Deferred income tax assets and liabilities are recorded based on the differences between the financial statement and tax bases of assets and liabilities, applying enacted statutory tax rates in effect for the year in which the tax differences are expected to reverse. Valuation allowances are provided against deferred tax assets which are not likely to be realized. On a regular basis, management evaluates the recoverability of deferred tax assets and the need for a valuation allowance. We also consider the existence of any uncertain tax positions and, as necessary, provide a reserve for any uncertain tax positions at each reporting date.

See Note 13, "Income Tax," for further details.

**Inventories**—Inventories consist primarily of telecommunications systems and parts, and are recorded at the lower of cost (average cost) or market. We evaluate the need for write-downs associated with obsolete, slow-moving and nonsalable inventory by reviewing net realizable inventory values on a periodic basis.

See Note 4, "Composition of Certain Balance Sheet Accounts," for further details.

**Property and Equipment and Depreciation**—Property and equipment, including leasehold improvements, are stated at historical cost, less accumulated depreciation. Network asset inventory and construction in progress, which include materials, transmission and related equipment, and interest and other costs relating to the construction and development of our network, are not depreciated until they are put into service. Network equipment consists of switching equipment, antennas, base transceiver stations, site preparation costs, and other related equipment used in the operation of our network. Airborne equipment consists of routers, modems, radomes, antennas and related equipment, and accessories installed or to be installed on aircraft. Depreciation expense totaled \$84.1 million, \$69.4 million and \$53.4 million for the years ended December 31, 2016, 2015 and

2014, respectively. Depreciation of property and equipment is computed using the straight-line method over the estimated useful lives for owned assets, which are as follows:

Office equipment, furniture, fixtures and other	3-7 years
Leasehold improvements	3-13 years
Airborne equipment	7 years
Network equipment	5-25 years

See Note 4, "Composition of Certain Balance Sheet Accounts," for further details.

Improvements to leased property are amortized over the shorter of the useful life of the improvement or the term of the related lease. Repairs and maintenance costs are expensed as incurred.

Due to advances in technology and changes in agreements with our airline partners, with respect to upgrading equipment, we periodically reassess the useful lives of our property and equipment. Such reassessment has resulted in the useful life of specific assets being adjusted to a shorter period than originally estimated, resulting in an increase in annual depreciation expense for those assets.

Goodwill and Other Intangible Assets—Goodwill and other intangible assets with indefinite lives are not amortized, but are reviewed for impairment at least annually or whenever events or circumstances indicate the carrying value of the asset may not be recoverable. Our FCC Licenses (as defined in Note 5, "Intangible Assets") are our only indefinite-lived intangible assets. We perform our annual impairment tests of goodwill and our FCC Licenses during the fourth quarter of each fiscal year. We assess qualitative factors to determine the likelihood of impairment. Our qualitative analysis includes, but is not limited to, assessing the changes in macroeconomic conditions, regulatory environment, industry and market conditions, financial performance versus budget and any other events or circumstances specific to goodwill and the FCC Licenses. If it is more likely than not that the fair value of goodwill and the FCC Licenses is greater than the carrying value, no further testing is required. Otherwise, we will apply the quantitative impairment test method.

Our quantitative impairment testing of the FCC Licenses uses the Greenfield method, an income-based approach. When performing this quantitative impairment testing, we estimate the fair value of the goodwill and FCC Licenses asset balances based primarily on projected future operating results, discounted cash flows, and other assumptions. Projected future operating results and cash flows used for valuation purposes may reflect considerable improvements relative to historical periods with respect to, among other things, revenue growth and operating margins. Although we believe our projected future operating results and cash flows and related estimates regarding fair values are based on reasonable assumptions, projected operating results and cash flows may not always be achieved. The failure to achieve one or more of our assumptions regarding projected operating results and cash flows in the near term or long term could reduce the estimated fair value below carrying value and result in the recognition of an impairment charge. The results of our annual goodwill and indefinite-lived intangible asset impairment assessments for 2016, 2015 and 2014 indicated no impairment.

Intangible assets that are deemed to have a finite life are amortized over their useful lives as follows:

Software	3-8 years
OEM and dealer relationships	10 years
Service customer relationships	5-7 years
Other intangible assets	4-12 years

See Note 5, "Intangible Assets," for further details.

**Long-Lived Assets**—We review our long-lived assets to determine potential impairment whenever events indicate that the carrying amount of such assets may not be recoverable. We do this by comparing the carrying

value of the long-lived assets with the estimated future undiscounted cash flows expected to result from the use of the assets, including cash flows from disposition. If we determine an impairment exists, the asset is written down to estimated fair value. There were no impairments of long-lived assets in 2016, 2015 and 2014.

Arrangements with Commercial Airlines—Pursuant to contractual agreements with our airline partners, we place our equipment on commercial aircraft operated by the airlines for the purpose of delivering our service to passengers on the aircraft. Depending on the agreement, we may be responsible for the costs of installing and/ or deinstalling the equipment. Under one type of connectivity agreement we maintain legal title to our equipment; however, under a second, more prevalent type of connectivity agreement some of our airline partners make an upfront payment and take legal title to such equipment. The majority of the equipment transactions involve the transfer of legal title but have not met sales recognition for accounting purposes because the risks and rewards of ownership are not fully transferred due to our continuing involvement with the equipment, the length of the term of our agreements with the airlines and restrictions in the agreements regarding the airlines' use of the equipment. We account for these equipment transactions as operating leases of space for our equipment on the aircraft. The assets are recorded as airborne equipment on our balance sheets, as noted in the Property and Equipment and Depreciation section above. Any upfront equipment payments are accounted for as lease incentives and recorded as deferred airborne lease incentives on our balance sheets and are recognized as a reduction of the cost of service revenue on a straight-line basis over the term of the agreement with the airline.

Additionally, equipment transactions under one form of agreement, which we have used on a limited basis but expect to use more in the future, qualify for sale treatment due to the specific provisions of the agreement.

In the majority of our agreements with commercial airlines, we are required to pay the airline a percentage of the service revenues generated from transactions with the airline's passengers. Such payments are essentially contingent rental payments and are recorded at the same time as the related passenger service revenue and classified as cost of service revenue in the consolidated statements of operations. Certain airlines are also entitled under their contracts to reimbursement by us for certain costs, which are deemed additional rental payments and classified as cost of service revenue in our consolidated statements of operations.

See Note 14, "Leases," for further details.

**Revenue Recognition**—Service revenue for CA-NA and CA-ROW primarily consists of point-of-sale transactions with airline passengers, which are recognized as the services are provided and billed to customers, typically by credit or debit card. The card processors charge a transaction fee for each card transaction, and such transaction processor payments are classified as cost of service revenue in the consolidated statements of operations and recorded at the same time as the related passenger service revenue.

CA-NA's product offerings also include an annual subscription product and an unlimited monthly access option. Under the annual subscription product, revenue is recognized evenly throughout the year, regardless of how many times the customer accesses the network. Under the unlimited monthly access option, revenue is recognized throughout the month starting on the date of purchase, regardless of how many times the customer accesses the network. All deferred revenue amounts related to the annual subscription, multi-packs and unlimited monthly access options are classified as a current liability in our consolidated balance sheets.

CA-NA and CA-ROW also derive service revenue under arrangements with various third parties who sponsor free or discounted access to our service. The sponsorship arrangements vary with respect to duration and the airlines included. For sponsorship arrangements that occur across more than a single calendar month, revenue is deferred and recognized evenly throughout the sponsorship term. Other sources of CA-NA and CA-ROW revenue includes fees paid by third parties to advertise on or to enable e-commerce transactions through our airborne portal. For advertising or e-commerce arrangements that occur across more than a single calendar month, revenue is deferred and recognized evenly throughout the term of the arrangement.

CA-NA and CA-ROW also derive revenue from Connected Aircraft Services, or CAS. Under these arrangements, fixed-fee revenue (contractual allowance of megabytes or "MB") may be deferred and recognized evenly over the year of service and a per-MB usage (overage) charge is recognized in the month it was consumed.

We recognize revenue for equipment sales when the following conditions have been satisfied: the equipment has been shipped to the customer, title and risk of loss and control have transferred to the customer, we have no future obligations for installation or maintenance service, the price is fixed or determinable, collectability is reasonably assured and, for the CA-NA and CA-ROW businesses, program launch has occurred. Additionally, when connectivity equipment and services are not separable, the equipment revenue is recognized over the connectivity service term.

We have multi-element arrangements that include equipment, connectivity services, installation and various in-flight entertainment offerings. Revenue is allocated to each element based on the selling price of each element. Each element's allocated revenue is recognized when the revenue recognition criteria for that element have been met. Fair value is generally based on one of the following three methods: the price charged when each element is sold separately, commonly referred to as vendor-specific objective evidence ("VSOE"); third-party evidence of selling price; or our best estimate of selling price, if neither VSOE or third-party evidence exists. Our BA segment uses VSOE and our CA-NA segment, through certain contracts for equipment and services that are sold direct to our airline partners, uses an estimated selling price to determine the selling price of the elements pertaining to these arrangements.

Service revenue for BA generally consists of monthly recurring and usage fees, which are recognized monthly as the services are provided and billed to customers.

Additionally, CA-NA and CA-ROW charge monthly service fees to our airline partners for network monitoring and portal management services. We recognize these monthly fees as airborne lease incentives (i.e., credit to cost of service revenue) when the services are provided.

**Research and Development Costs**—Expenditures for research and development are charged to expense as incurred and totaled \$45.9 million, \$50.1 million and \$40.1 million for the years ended December 31, 2016, 2015, and 2014, respectively. Research and development costs are reported as a component of engineering, design and development expenses in our consolidated statements of operations.

**Software Development Costs**—We capitalize costs for network and non-network software developed or obtained for internal use during the application development stage. These costs include purchased software and direct costs associated with the development and configuration of internal use software that supports the operation of our service offerings. These costs are included in intangible assets, net, in our consolidated balance sheets and, when the software is placed in service, are amortized on a straight-line basis over their estimated useful lives. Costs incurred in the preliminary project and post-implementation stages, as well as maintenance and training costs, are expensed as incurred.

With respect to software sold as part of our equipment sales, we capitalize software development costs once technological feasibility has been established. Capitalized software costs are amortized on a product-by-product basis, based on the greater of the ratio that current gross revenues for a product bear to the total of current and anticipated future gross revenues for that product or the straight-line method over the remaining estimated economic life of the product.

**Warranty**—We provide warranties on parts and labor related to our products. Our warranty terms range from two to five years. Warranty reserves are established for costs that are estimated to be incurred after the sale, delivery and installation of the products under warranty. The warranty reserves are determined based on known

product failures, historical experience and other available evidence, and are included in accrued liabilities in our consolidated balance sheets. See Note 4, "Composition of Certain Balance Sheet Accounts," for the details of the changes in our warranty reserve.

Asset Retirement Obligations—We have certain asset retirement obligations related to contractual commitments to remove our network equipment and other assets from leased cell sites upon termination of the site lease and to remove equipment from aircraft when the service contracts terminate. The asset retirement obligations are classified as a noncurrent liability in our consolidated balance sheets.

See Note 4, "Composition of Certain Balance Sheet Accounts," for the details of the changes in our asset retirement obligations.

**Fair Value of Financial Instruments**—We group financial assets and financial liabilities measured at fair value into three levels of hierarchy based on the markets in which the assets and liabilities are traded and the reliability of the assumptions used to determine fair value.

See Note 9, "Fair Value of Financial Assets and Liabilities," for further information.

**Derivatives**—In March 2015, we entered into a prepaid forward transaction in which we purchased 7.2 million shares of our common stock for approximately \$140 million, with an expected settlement date on or around March 1, 2020. Because the transaction is indexed to our own stock and classified within stockholders' equity, we do not account for the prepaid forwards as a derivative instrument in accordance with ASC 815, *Derivatives and Hedging*.

See Note 6, "Long-Term Debt and Other Liabilities," Note 8, "Common Stock and Preferred Stock," and Note 9, "Fair Value of Financial Assets and Liabilities," for further information.

Convertible Notes—Proceeds received from the issuance of Convertible Notes (as defined in Note 6, "Long-Term Debt and Other Liabilities") are initially allocated between a liability component (long-term debt) and an equity component (additional paid-in capital), within the consolidated balance sheet. The fair value of the liability component is measured using rates determined for similar debt instruments without a conversion feature. The carrying amount of the equity component, representing the conversion option, is determined by deducting the fair value of the liability component from the aggregate face value of Convertible Notes.

See Note 6, "Long-Term Debt and Other Liabilities," for further information.

**Net Loss Per Share**—We calculate basic and diluted net loss per share using the weighted-average number of common shares outstanding during the period.

See Note 3, "Net Loss Per Share," for further information.

**Stock-Based Compensation Expense**—Compensation cost is measured and recognized at fair value for all stock-based payments, including stock options. For time-based vesting stock options, we estimate fair value using the Black-Scholes option-pricing model, which requires assumptions, such as expected volatility, risk-free interest rate, expected life, and dividends. Restricted stock units ("RSUs") and restricted stock are measured based on the fair market value of the underlying stock on the date of grant. For awards with a market condition (which we have used on a limited extent), we estimated fair value using the Monte Carlo Simulation model, which requires assumptions, such as volatility, risk-free interest rate, expected life and dividends. Our stock-based compensation expense is recognized over the applicable vesting period, and is included in the same operating expense line items in the consolidated statements of operations as the base cash compensation paid to the underlying employees. We adopted ASU 2016-09, *Improvements to Employee Share-Based Payment Accounting* ("ASU 2016-09"), in December 2016 and ceased recognizing stock-based compensation net of forfeitures and instead recognize forfeitures as they occur.

See Note 11, "Stock-Based Compensation," for further discussion.

**Leases**—In addition to our arrangements with commercial airlines which we account for as leases as noted above, we also lease certain facilities, equipment, cell tower space, and base station capacity. We review each lease agreement to determine if it qualifies as an operating or capital lease.

For leases that contain predetermined fixed escalations of the minimum rent, we recognize the related rent expense on a straight-line basis over the term of the lease. We record any difference between the straight-line rent amounts and amounts payable under the lease as deferred rent, in either accrued liabilities or as a separate line within noncurrent liabilities, as appropriate, in our consolidated balance sheets.

For leases that qualify as a capital lease, we record a capital lease asset and a capital lease obligation at the beginning of the lease term at an amount equal to the present value of minimum lease payments during the term of the lease, excluding that portion of the payments that represent executory costs. The capital lease asset is depreciated on a straight-line method over the shorter of its estimated useful life or lease term.

See Note 14, "Leases," for further information.

Advertising Costs—Costs for advertising are expensed as incurred.

**Debt Issuance Costs**—We defer loan origination fees and financing costs related to our various debt offerings as deferred financing costs. Additionally, we defer fees paid directly to the lenders related to amendments with our various debt offerings as deferred financing costs. We amortize these costs over the term of the underlying debt obligation using the effective interest method, and include them in interest expense in the consolidated statement of operations. The fees incurred but not paid directly to the lenders in connection with amendments are expensed as incurred to interest expense. Deferred financing costs associated with future debt issuances are written off in the period during which we determine that the debt will no longer be issued.

See Note 6, "Long-Term Debt and Other Liabilities" for further information.

**Comprehensive Loss**—Comprehensive loss for the years ended December 31, 2016, 2015 and 2014 is net loss plus unrealized losses on foreign currency translation adjustments.

## Recently Issued Accounting Pronouncements—

In May 2014, the Financial Accounting Standards Board ("FASB") issued Accounting Standards Update ("ASU") 2014-09, Revenue From Contracts With Customers ("ASU 2014-09"). This pronouncement outlines a single comprehensive model to use in accounting for revenue arising from contracts with customers and supersedes most current revenue recognition guidance. The core principle of ASU 2014-09 is that an entity recognizes revenue to depict the transfer of promised goods or services to customers in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services. Additionally, the FASB issued several amendments to the standard, including clarification on accounting for licenses of intellectual property and identifying performance obligations. This guidance is effective for annual reporting periods beginning after December 15, 2017, including interim periods within the annual reporting periods. Early adoption of the guidance is permitted for annual reporting periods beginning after December 15, 2016, including interim reporting periods within the annual reporting periods. We will adopt this guidance as of January 1, 2018 and we expect to apply this standard using the full retrospective method. During 2016, we established a project team responsible for assessment and implementation of this guidance. While we are continuing to evaluate the impact of the adoption of this guidance on our consolidated financial statements, based on our analysis to date we currently believe that the measurement and timing of recognition of revenue from certain of our commercial aviation and business aviation customers will be impacted. Certain of our commercial airline and business aviation contracts provide service revenue that varies based on usage by passengers and our airline partners. The

adoption of this guidance will require consideration as to whether service revenue under such contracts is considered an optional purchase of goods or services, or is considered variable consideration. Additionally, we are continuing to assess the treatment of costs to obtain or fulfill a contract with a customer, including costs to obtain STC's and sales commissions that may require capitalization and amortization over the anticipated service period. Further, our revenue may be affected by up-front activation fees and penalties estimated at the inception of each arrangement. We are still assessing the impact of these changes to our consolidated financial statements.

In August 2014, the FASB issued ASU 2014-15, *Disclosure of Uncertainties about an Entity's Ability to Continue as a Going Concern* ("ASU 2014-15"). This pronouncement provides additional guidance surrounding the disclosure of going concern uncertainties in the financial statements and requires that management perform interim and annual assessments of an entity's ability to continue as a going concern for twelve months from the date the financial statements are issued. We adopted this guidance as of December 31, 2016, which did not result in additional disclosures.

In March 2016, the FASB issued ASU 2016-02, *Leases* ("ASU 2016-02"), which introduces a lessee model that records most leases on the balance sheet. ASU 2016-02 also aligns certain underlying principles of the new lessor model with those in Accounting Standards Codification ("ASC") 606, *Revenue from Contracts with Customers* ("ASC 606"), the FASB's new revenue recognition standard. Furthermore, ASU 2016-02 eliminates the required use of bright-line tests used in current GAAP for determining lease classification. It also requires lessors to provide additional transparency into the exposure to the changes in value of their residual assets and how they manage that exposure. ASU 2016-02 is effective for annual reporting periods beginning after December 15, 2018, including interim periods within those annual reporting periods. We will adopt this as guidance as of January 1, 2019 and we are currently evaluating the impact of the adoption of this guidance on our consolidated financial statements.

In March 2016, the FASB issued ASU 2016-04, *Recognition of Breakage for Certain Prepaid Stored-Value Products* ("ASU 2016-04"), which amends the guidance on extinguishing financial liabilities for certain prepaid stored-value products by requiring that entities that sell prepaid stored-value products recognize breakage proportionally as the prepaid stored-value product is being redeemed rather than immediately upon sale of the product. If an entity is unable to estimate breakage, the amount would be recognized when the likelihood becomes remote that the holder will exercise the remaining rights. Entities are required to reassess their estimates of breakage each reporting period. Any change in this estimate would be accounted for as a change in an accounting estimate. An entity that recognizes breakage is required to disclose the methodology used to recognize breakage and significant judgments made in applying the breakage methodology. ASU 2016-04 is effective for fiscal years beginning after December 15, 2017, including interim periods within those fiscal years and early adoption is permitted. We can apply ASU 2016-04 by using either a modified retrospective transition approach or a full retrospective transition approach. We will adopt this as guidance as of January 1, 2018 and we are currently evaluating the impact of the adoption of this guidance on our consolidated financial statements.

In March 2016, the FASB issued ASU 2016-09, which simplifies several aspects of the accounting for employee share-based payment transactions for both public and nonpublic entities, including the accounting for income taxes, forfeitures and statutory tax withholding requirements, as well as classification in the statement of cash flows. We adopted ASU 2016-09 during the fourth quarter of 2016, which did not have a material impact of the on our consolidated financial statements.

In August 2016, the FASB issued ASU 2016-15, Classification of Certain Cash Receipts and Cash Payments ("ASU 2016-15"), which amends ASC 230, Statement of Cash Flows, the FASB's standards for reporting cash flows in general-purpose financial statements. The amendments address the diversity in practice related to the classification of certain cash receipts and payments including debt prepayment or debt extinguishment costs. We will adopt this guidance as of January 1, 2018 and we expect to apply this standard using the full retrospective method. We do not believe adoption of this guidance will have a material effect on our cash flows as we have historically reported debt prepayment and debt extinguishment costs in a manner consistent with ASU 2016-15.

In October 2016, the FASB issued ASU 2016-16, *Intra-Entity Transfers of Assets Other Than Inventory* ("ASU 2016-16"), which removes the prohibition in ASC 740, *Income Taxes*, against the immediate recognition of the current and deferred income tax effects of intra-entity transfers of assets other than inventory. This is intended to reduce the complexity of GAAP and diversity in practice related to the tax consequences of certain types of intra-entity asset transfers, particularly those involving intellectual property. ASU 2016-16 is effective for annual reporting periods beginning after December 15, 2017, including interim periods within those annual reporting periods. We will adopt this guidance as of January 1, 2018 and we are currently evaluating the impact of the adoption of this guidance on our consolidated financial statements.

In November 2016, the FASB issued ASU 2016-18, *Restricted Cash—A Consensus of the FASB Emerging Issues Task Force*, ("ASU 2016-18"), which amends ASC 230, *Statement of Cash Flows*, to clarify guidance on the classification and presentation of restricted cash in the statement of cash flows. ASU 2016-18 is effective for annual reporting periods beginning after December 15, 2017, including interim periods within those annual reporting periods. We will adopt this guidance as of January 1, 2108 and we are currently evaluating the impact of the adoption of this guidance on our consolidated financial statements.

#### 3. Net Loss Per Share

Basic and diluted net loss per share have been calculated using the weighted-average number of common shares outstanding for the period.

The shares of common stock effectively repurchased in connection with the Forward Transactions (as defined and described in Note 6, "Long-Term Debt and Other Liabilities") are considered participating securities requiring the two-class method to calculate basic and diluted earnings per share. Net earnings in future periods will be allocated between common shares and participating securities. In periods of a net loss, the shares associated with the Forward Transactions will not receive an allocation of losses, as the counterparties to the Forward Transactions are not required to fund losses. Additionally, the calculation of weighted average shares outstanding as of December 31, 2016 and 2015 excludes approximately 7.2 million shares that will be repurchased as a result of the Forward Transactions.

As a result of the net loss for each of the years ended December 31, 2016, 2015 and 2014 for the periods where such shares or securities were outstanding, all of the outstanding shares of common stock underlying stock options, ACM Units, deferred stock units and restricted stock units were excluded from the computation of diluted shares outstanding because they were anti-dilutive.

The following table sets forth the computation of basic and diluted earnings per share for the years ended December 31, 2016, 2015 and 2014; however, because of the undistributed losses, the shares associated with the Forward Transactions are excluded from the computation of basic earnings per share as undistributed losses are not allocated to these shares (*in thousands, except per share amounts*):

	2016	2015	2014
Net loss	\$(124,505)	\$(107,613)	\$(84,538)
Less: Participation rights of the Forward Transactions			
Undistributed losses	<u>\$(124,505)</u>	<u>\$(107,613)</u>	<u>\$(84,538)</u>
Weighted-average common shares outstanding-basic and diluted	78,915	79,701	85,147
Net loss attributable to common stock per share-basic and diluted	\$ (1.58)	\$ (1.35)	\$ (0.99)

For the Years Ended December 31,

# 4. Composition of Certain Balance Sheet Accounts

Inventories as of December 31, 2016 and 2015, all of which were included within the BA segment, were as follows (*in thousands*):

	December 31,		
	2016	2015	
Work-in-process component parts	\$39,150	\$13,866	
Finished goods	11,116	7,071	
Total inventory	\$50,266	\$20,937	
Total inventory	\$50,266	\$20,9	

Property and equipment as of December 31, 2016 and 2015 were as follows (in thousands):

	December 31,		
	2016	2015	
Office equipment, furniture, fixtures and other	\$ 49,529	\$ 43,447	
Leasehold improvements	42,143	42,318	
Airborne equipment	557,196	414,381	
Network equipment	168,121	156,890	
	816,989	657,036	
Accumulated depreciation	(297,179)	(222,546)	
Property and equipment, net	\$ 519,810	\$ 434,490	

Accrued liabilities as of December 31, 2016 and 2015 consist of the following (in thousands):

December 31,		
2016	2015	
\$ 21,008	\$23,668	
22,442	17,503	
14,307	11,387	
40,436	4,611	
33,862	31,521	
\$132,055	\$88,690	
	\$ 21,008 22,442 14,307 40,436 33,862	

Other non-current liabilities as of December 31, 2016 and 2015 consist of the following (in thousands):

	December 31,		
	2016	2015	
Deferred rent	\$36,538	\$36,656	
Deferred revenue	38,976	20,758	
Asset retirement obligations	8,527	7,847	
Other	6,627	3,589	
Total other non-current liabilities	\$90,668	\$68,850	

Changes in our warranty reserve for the years ended December 31, 2016, 2015 and 2014 consist of the following (*in thousands*):

Warranty Reserve
\$ 880
519
(314)
1,085
1,882
(1,133)
1,834
1,535
(793)
\$ 2,576

Changes in our non-current asset retirement obligations for the years ended December 31, 2016 and 2015 consist of the following (*in thousands*):

Accet

	Retirement Obligation
Balance—January 1, 2015	\$6,153
Liabilities incurred (1)	1,181
Liabilities settled	(156)
Accretion expense	712
Foreign exchange rate adjustments	(43)
Balance—December 31, 2015	7,847
Liabilities incurred (2)	11
Liabilities settled	(174)
Accretion expense	835
Foreign exchange rate adjustments	8
Balance—December 31, 2016	<u>\$8,527</u>

<sup>(1)</sup> Includes \$0.3 million related to a change in estimate in the expected cash flows for our estimated liabilities.

## 5. Intangible Assets

Our intangible assets are comprised of indefinite- and finite-lived intangible assets. We own the rights to both 3MHz of ATG spectrum in the nationwide 800 MHz Commercial Air-Ground Radiotelephone band (the "3 MHz FCC License"), which is used in the operation of our ATG network, and the license for 1 MHz of ATG spectrum in the nationwide 800MHz Commercial Air-Ground Radiotelephone band ("1 MHz FCC License") acquired in the Airfone Acquisition. Together we refer to the 3 MHz FCC License and the 1 MHz FCC License as the "FCC Licenses". While the FCC Licenses were issued with 10-year terms, such licenses are subject to renewal by the FCC, and renewals of licenses held by others have occurred routinely and at nominal cost. Moreover, we have determined that there are currently no legal, regulatory, contractual, competitive, economic, or other factors that limit the useful life of the FCC Licenses. As a result, the FCC Licenses are treated as indefinite-lived intangible assets which we do not amortize. We reevaluate the useful life of the FCC Licenses each year to determine whether events and circumstances continue to support an indefinite useful life. Our annual impairment assessment of the FCC Licenses for 2016, 2015, and 2014 indicated no impairment.

<sup>(2)</sup> Includes \$0.5 million related to a change in estimate in the expected cash flows for our estimated liabilities.

Our software relates to the development of internal use software which is used to run our network and support our service offerings. Software also includes software embedded in the equipment that we sell to our customers within the BA segment.

Our goodwill balance, all of which related to our BA segment, was \$0.6 million as of December 31, 2016 and 2015.

Our intangible assets, other than goodwill, as of December 31, 2016 and 2015 were as follows (*in thousands, except for weighted average remaining useful life*):

	Weighted Average	As of December 31, 2016		As of	December 31,	2015	
	Remaining Useful Life (in years)	Gross Carrying Amount	Accumulated Amortization	Net Carrying Amount	Gross Carrying Amount	Accumulated Amortization	Net Carrying Amount
Amortized intangible assets:							
Software	2.4	\$118,836	\$(70,127)	\$48,709	\$ 90,925	\$(50,760)	\$40,165
OEM and dealer relationships		6,724	(6,667)	57	6,724	(5,995)	729
Service customer relationships	3.3	8,081	(4,773)	3,308	8,081	(3,757)	4,324
Other intangible assets	1.9	1,500	(682)	818	1,500	(178)	1,322
Total amortized intangible							
assets		135,141	(82,249)	52,892	107,230	(60,690)	46,540
Unamortized intangible assets:							
FCC Licenses		32,283		32,283	32,283		32,283
<b>Total intangible assets</b>		<u>\$167,424</u>	<u>\$(82,249)</u>	<u>\$85,175</u>	<u>\$139,513</u>	<u>\$(60,690)</u>	<u>\$78,823</u>

Amortization expense for the years ended December 31, 2016, 2015 and 2014 was \$21.6 million, \$17.6 million and \$11.0 million, respectively.

Amortization expense for each of the next five years and thereafter is estimated to be as follows (*in thousands*):

Years ending December 31,	Amortization Expense
2017	\$21,830
2018	\$15,467
2019	\$ 9,070
2020	\$ 2,049
2021	\$ 1,328
Thereafter	\$ 3,148

Actual future amortization expense could differ from the estimated amount as the result of future investments and other factors.

### 6. Long-Term Debt and Other Liabilities

Long-term debt as of December 31, 2016 and December 31, 2015 was as follows (in thousands):

	December 31, 2016	December 31, 2015
Senior Secured Notes	\$525,000	\$ —
Convertible Notes	292,024	274,528
Amended and Restated Senior Term Facility		301,503
Total debt	817,024	576,031
Less current portion of long-term debt	_	(18,835)
Less deferred financing costs	(16,309)	(14,623)
Total long-term debt	\$800,715	\$542,573

Senior Secured Notes—On June 14, 2016 (the "Issue Date"), Gogo Intermediate Holdings LLC ("GIH") (a wholly owned subsidiary of Gogo Inc.) and Gogo Finance Co. Inc. (a wholly owned subsidiary of GIH) (the "Co-Issuer" and, together with GIH, the "Issuers"), issued \$525 million aggregate principal amount of 12.500% senior secured notes due 2022 (the "Senior Secured Notes") under an Indenture, dated as of June 14, 2016 (the "Indenture"), among the Issuers, us, as guarantor, certain subsidiaries of GIH, as guarantors (the "Subsidiary Guarantors" and, together with us, the "Guarantors"), and U.S. Bank National Association, as trustee (in such capacity, the "Trustee") and as collateral agent (in such capacity, the "Collateral Agent"). On December 31, 2016 the outstanding principal balance of the Senior Secured Notes was \$525.0 million.

On January 3, 2017, the Issuers issued \$65 million aggregate principal amount of additional Senior Secured Notes due 2022 (the "Additional Notes"). The Additional Notes were issued at a price equal to 108% of their face value resulting in gross proceeds of \$70.2 million. The Additional Notes have the same terms as the original Senior Secured Notes (as noted below), except with respect to the issue date and issue price and are treated as a single series for all purposes under the Indenture and the security documents that govern the Additional Notes and the original Senior Secured Notes.

Interest on the Senior Secured Notes will accrue at the rate of 12.500% per annum and will be payable semi-annually in arrears on July 1 and January 1, commencing on January 1, 2017 (other than the Additional Notes, for which interest payments commence on July 1, 2017). The Senior Secured Notes mature on July 1, 2022.

We used a portion of the net proceeds from the issuance of the Senior Secured Notes to repay all indebtedness outstanding under the Amended and Restated Senior Term Facility (as defined below), which we prepaid at par plus 3.0% of the principal amount of the loans prepaid in June 2016 (see below for additional details). We intend to use the remaining net proceeds, including the net proceeds from the Additional Notes, for working capital and other general corporate purposes.

We paid approximately \$11.4 million of loan origination fees and financing costs related to the issuance of the Senior Secured Notes, which has been accounted for as deferred financing costs. The deferred financing costs on our consolidated balance sheet are being amortized over the contractual term of the Senior Secured Notes using the effective interest method. Total amortization expense was \$1.0 million for the year ended December 31, 2016. As of December 31, 2016, the balance of unamortized deferred financing costs related to the Senior Secured Notes was \$10.4 million and is included as a reduction to long-term debt in our consolidated balance sheet. See Note 7, "Interest Costs" for additional information.

The Senior Secured Notes are the senior secured indebtedness of the Issuers and are:

effectively senior to all of the Issuers' existing and future senior unsecured indebtedness and the
Issuers' indebtedness secured on a junior priority basis by the same collateral securing the Senior
Secured Notes, if any, in each case to the extent of the value of the collateral securing the Senior
Secured Notes;

- effectively senior in right of payment to all of the Issuers' future indebtedness that is subordinated in right of payment to the Senior Secured Notes;
- effectively equal in right of payment with the Issuers' existing and future (i) unsecured indebtedness that is not subordinated in right of payment to the Senior Secured Notes and (ii) indebtedness secured on a junior priority basis by the same collateral securing the Senior Secured Notes, if any, in each case to the extent of any insufficiency in the collateral securing the Senior Secured Notes;
- structurally senior to all of our existing and future indebtedness, including our Convertible Notes (as
  defined below); and
- structurally subordinated to all of the indebtedness and other liabilities of any non-Guarantors (other than the Issuers).

The Senior Secured Notes are guaranteed, on a senior secured basis, by us and all of GIH's existing and future domestic restricted subsidiaries (other than the Co-Issuer), subject to certain exceptions. The Issuers' obligations under the Senior Secured Notes are not guaranteed by Gogo International Holdings, LLC, a subsidiary of ours that holds no material assets other than equity interests of our foreign subsidiaries. Each guarantee is a senior secured obligation of such Guarantor and is:

- effectively senior to all of such Guarantor's existing and future senior unsecured indebtedness and such Guarantor's indebtedness secured on a junior priority basis by the same collateral, if any, securing the guarantee of such Guarantor, in each case to the extent of the value of the collateral securing such guarantee;
- effectively senior in right of payment to all of such Guarantor's future indebtedness that is subordinated in right of payment to such Guarantor's guarantee;
- effectively equal in right of payment with all of such Guarantor's existing and future (i) unsecured indebtedness that is not subordinated in right of payment to such Guarantor's guarantee, and
   (ii) indebtedness secured on a junior priority basis by the same collateral, if any, securing the guarantee of such Guarantor, in each case to the extent of any insufficiency in the collateral securing such guarantee; and
- structurally subordinated to all indebtedness and other liabilities of any non-Guarantor subsidiary of such Guarantor (excluding, in the case of our guarantee, the Issuers).

The Senior Secured Notes and the related guarantees are secured by first-priority liens, subject to permitted liens, on substantially all of the Issuers' and the Guarantors' assets, except for certain excluded assets, including pledged equity interests of the Issuers and all of our existing and future domestic restricted subsidiaries guaranteeing the Senior Secured Notes.

The security interests in certain collateral may be released without the consent of holders of the Senior Secured Notes if such collateral is disposed of in a transaction that complies with the Indenture and related security agreements. In addition, under certain circumstances, we and the Guarantors have the right to transfer certain intellectual property assets that on the Issue Date constitute collateral securing the Senior Secured Notes or the guarantees to a restricted subsidiary organized under the laws of Switzerland, resulting in the release of such collateral without consent of the holders of the Senior Secured Notes.

On or after July 1, 2019, the Issuers may, at their option, at any time or from time to time, redeem any of the Senior Secured Notes in whole or in part. The Senior Secured Notes will be redeemable at the following redemption prices (expressed in percentages of principal amount), plus accrued and unpaid interest, if any, to (but not including) the redemption date (subject to the right of holders of record on the relevant regular record date that are on or prior to the redemption date to receive interest due on an interest payment date), if redeemed during the twelve-month period commencing on July 1 of the following years:

Year	Redemption Price
2019	106.250%
2020	103.125%
2021 and thereafter	100.000%

In addition, at any time prior to July 1, 2019, the Issuers may redeem up to 35% of the aggregate principal amount of the Senior Secured Notes with the proceeds of certain equity offerings at a redemption price of 112.500% of their principal amount, plus accrued and unpaid interest, if any, to (but not including) the date of redemption; provided, however, that Senior Secured Notes representing at least 65% of the principal amount of the Senior Secured Notes remain outstanding immediately after each such redemption.

The Issuers may redeem the Senior Secured Notes, in whole or in part, at any time prior to July 1, 2019, at a redemption price equal to 100% of the principal amount of the Senior Secured Notes redeemed plus the makewhole premium set forth in the Indenture as of, and accrued and unpaid interest, if any, to (but not including) the applicable redemption date.

The Indenture contains covenants that, among other things, limit the ability of the Issuers and the Subsidiary Guarantors and, in certain circumstances, our ability, to: incur additional indebtedness; pay dividends, redeem stock or make other distributions; make investments; create restrictions on the ability of our restricted subsidiaries to pay dividends to the Issuers or make other intercompany transfers; create liens; transfer or sell assets; merge or consolidate; and enter into certain transactions with the Issuers' affiliates, including us. Most of these covenants will cease to apply if, and for as long as, the Senior Secured Notes have investment grade ratings from both Moody's Investment Services, Inc. and Standard & Poor's.

If we or the Issuers undergo specific types of change of control prior to July 1, 2022, GIH is required to make an offer to repurchase for cash all of the Senior Secured Notes at a repurchase price equal to 101% of the principal amount thereof, plus accrued and unpaid interest, if any, to (but not including) the payment date.

The Indenture provides for events of default, which, if any of them occur, would permit or require the principal, premium, if any, and interest on all the then outstanding Senior Secured Notes issued under the Indenture to be due and payable immediately. As of December 31, 2016, no event of default had occurred.

Convertible Notes—On March 3, 2015, we issued \$340.0 million aggregate principal amount of 3.75% Convertible Senior Notes due 2020 (the "Convertible Notes") in a private offering to qualified institutional buyers, pursuant to Rule 144A under the Securities Act. We granted an option to the initial purchasers to purchase up to an additional \$60.0 million aggregate principal amount of Convertible Notes to cover overallotments, of which \$21.9 million was subsequently exercised during March 2015, resulting in a total issuance of \$361.9 million aggregate principal amount of Convertible Notes. The Convertible Notes mature on March 1, 2020, unless earlier repurchased or converted into shares of our common stock under certain circumstances described below. Upon maturity, we have the option to settle our obligation through cash, shares of common stock, or a combination of cash and shares of common stock. We pay interest on the Convertible Notes semi-annually in arrears on March 1 and September 1 of each year. Interest payments began on September 1, 2015.

The \$361.9 million of proceeds received from the issuance of the Convertible Notes was initially allocated between long-term debt (the liability component) at \$261.9 million, and additional paid-in-capital (the equity

component) at \$100.0 million, within the consolidated balance sheet. The fair value of the liability component was measured using rates determined for similar debt instruments without a conversion feature. The carrying amount of the equity component, representing the conversion option, was determined by deducting the fair value of the liability component from the aggregate face value of the Convertible Notes. If we or the note holders elect not to settle the debt through conversion, we must settle the Convertible Notes at face value. Therefore, the liability component will be accreted up to the face value of the Convertible Notes, which will result in additional non-cash interest expense being recognized within the consolidated statements of operations through the Convertible Notes maturity date (see Note 7, "Interest Costs" for additional information). The effective interest rate on the Convertible Notes, including accretion of the notes to par and debt issuance cost amortization, was approximately 11.5%. The equity component will not be remeasured as long as it continues to meet the conditions for equity classification.

As of December 31, 2016 and 2015, the outstanding principal on the Convertible Notes was \$361.9 million, the unamortized debt discount was \$69.9 million and \$87.4 million, respectively, and the net carrying amount of the liability component was \$292.0 million and \$274.5 million, respectively.

We incurred approximately \$10.4 million of issuance costs related to the issuance of the Convertible Notes of which \$7.5 million and \$2.9 million were recorded to deferred financing costs and additional paid-in capital, respectively, in proportion to the allocation of the proceeds of the Convertible Notes. The \$7.5 million recorded as deferred financing costs on our consolidated balance sheet is being amortized over the term of the Convertible Notes using the effective interest method. Total amortization expense of the deferred financing costs was \$1.4 million and \$1.0 million, respectively, for the years ended December 31, 2016 and 2015. Amortization expense is included in interest expense in the consolidated statements of operations. As of December 31, 2016 and 2015, the balance of unamortized deferred financing costs related to the Convertible Notes was \$5.1 million and \$6.5 million, respectively, and is included as a reduction to long-term debt in our consolidated balance sheets. See Note 7, "Interest Costs" for additional information.

The Convertible Notes had an initial conversion rate of 41.9274 common shares per \$1,000 principal amount of Convertible Notes, which is equivalent to an initial conversion price of approximately \$23.85 per share of our common stock. Upon conversion, we currently expect to deliver cash up to the principal amount of the Convertible Notes then outstanding. With respect to any conversion value in excess of the principal amount, we currently expect to deliver shares of our common stock. We may elect to deliver cash in lieu of all or a portion of such shares. The shares of common stock subject to conversion are excluded from diluted earnings per share calculations under the if-converted method as their impact is anti-dilutive.

Holders may convert the Convertible Notes, at their option, in multiples of \$1,000 principal amount at any time prior to December 1, 2019, but only in the following circumstances:

- during any fiscal quarter beginning after the fiscal quarter ended June 30, 2015, if the last reported sale price of our common stock for at least 20 trading days (whether or not consecutive) during the last 30 consecutive trading days of the immediately preceding fiscal quarter is greater than or equal to 130% of the conversion price of the Convertible Notes on each applicable trading day;
- during the five business day period following any five consecutive trading day period in which the
  trading price for the Convertible Notes is less than 98% of the product of the last reported sale price of
  our common stock and the conversion rate for the Convertible Notes on each such trading day; or
- upon the occurrence of specified corporate events.

None of the above events allowing for conversion prior to December 1, 2019 occurred during the year ended December 31, 2016. Regardless of whether any of the foregoing circumstances occurs, a holder may convert its Convertible Notes, in multiples of \$1,000 principal amount, at any time on or after December 1, 2019 until maturity.

In addition, if we undergo a fundamental change (as defined in the indenture governing the Convertible Notes), holders may, subject to certain conditions, require us to repurchase their Convertible Notes for cash at a price equal to 100% of the principal amount of the Convertible Notes to be purchased, plus any accrued and unpaid interest. In addition, if specific corporate events occur prior to the maturity date, we will increase the conversion rate for a holder who elects to convert its Convertible Notes in connection with such a corporate event in certain circumstances.

In connection with the issuance of the Convertible Notes, we paid approximately \$140 million to enter into prepaid forward stock repurchase transactions (the "Forward Transactions") with certain financial institutions (the "Forward Counterparties"), pursuant to which we purchased approximately 7.2 million shares of common stock for settlement on or around the March 1, 2020 maturity date for the Convertible Notes, subject to the ability of each Forward Counterparty to elect to settle all or a portion of its Forward Transactions early. As a result of the Forward Transactions, total shareholders' equity within our consolidated balance sheet was reduced by approximately \$140 million. Approximately 7.2 million shares of common stock that will be effectively repurchased through the Forward Transactions are treated as retired shares for basic and diluted EPS purposes although they remain legally outstanding.

Amended and Restated Senior Term Facility—On July 30, 2014, GIH, Gogo Business Aviation LLC, f/k/ a Aircell Business Aviation Services LLC ("GBA"), and Gogo LLC, as borrowers (collectively, the "Borrowers"), entered into an Amendment and Restatement Agreement (the "Amendment") to the Credit Agreement dated as of June 21, 2012 and amended on April 4, 2013 (the "Amended Senior Term Facility") among the Borrowers, the lenders named therein, and Morgan Stanley Senior Funding, Inc., as Administrative Agent and Collateral Agent. We refer to the Amendment and the Amended Senior Term Facility collectively as the "Amended and Restated Senior Term Facility."

Prior to the Amendment, under the Amended Senior Term Facility we borrowed an aggregate principal amount of \$248.0 million (the "Tranche B-1 Loans"). Pursuant to the Amendment, we borrowed an aggregate additional principal amount of \$75.0 million (the "Tranche B-2 Loans" and, together with the Tranche B-1 Loans, the "Loans").

The interest rates applicable to the Tranche B-1 Loans were based on a fluctuating rate of interest measured by reference, at GBA's option, to either (i) a London inter-bank offered rate adjusted for statutory reserve requirements ("LIBOR") (subject to a 1.50% floor) plus an applicable margin of 9.75% per annum, or (ii) an alternate base rate ("Base Rate") (subject to a 2.50% floor) plus an applicable margin of 8.75% per annum. The interest rates applicable to the Tranche B-2 Loans were based on a fluctuating rate of interest measured by reference, at GBA's option, to either (i) LIBOR (subject to a 1.00% floor) plus an applicable margin of 6.50% per annum, or (ii) a Base Rate (subject to a 2.00% floor) plus an applicable margin of 5.50% per annum. Immediately prior to the termination, all loans were outstanding as one month LIBOR loans, and the interest rates on the Tranche B-1 Loans and the Tranche B-2 Loans were 11.25% and 7.50%, respectively. We paid customary fees in respect of the Amended and Restated Senior Term Facility.

The Tranche B-2 Loans were secured by the same collateral and guaranteed by the same guarantors as the Tranche B-1 Loans. The call premiums, mandatory prepayments, covenants, events of default and other terms applicable to the Tranche B-2 Loans were also generally the same as the corresponding terms applicable to the Tranche B-1 Loans under the Amended and Restated Senior Term Facility.

On June 14, 2016 the outstanding principal balance of \$287.7 million, together with accrued and unpaid interest, was paid in full, and the Amended and Restated Senior Term Facility was terminated in accordance with its terms on such date (subject to the survival of provisions expressly stated therein to survive the termination thereof). Additionally, we paid the voluntary prepayment premium of 3.0% or \$8.6 million and wrote off all of the remaining unamortized deferred financing costs of \$6.8 million. Both of these items are included in loss on extinguishment of debt in our consolidated financial statements. As of December 31, 2015, \$301.5 million was outstanding under the Amended and Restated Senior Term Facility.

We paid \$22.2 million of loan origination fees and financing costs related to the Amended and Restated Senior Term Facility, all but \$4.1 million of which were accounted for as deferred financing costs. Total amortization expense of the deferred financing costs was \$1.4 million, \$3.1 million and \$3.2 million, respectively, for the years ended December 31, 2016, 2015 and 2014. Amortization expense is included in interest expense in the consolidated statements of operations. As noted above, deferred financing costs related to the Amended and Restated Senior Term Facility were written off as of June 14, 2016. As of December 31, 2015, the balance of unamortized deferred financing costs related to the Amended and Restated Senior Term Facility was \$8.2 million and was included as a reduction to long-term debt in our consolidated balance sheet. See Note 7, "Interest Costs" for additional information.

Alaska Financing—On November 2, 2010, we entered into a \$4.1 million standby credit facility agreement (the "Alaska Facility") with Alaska Airlines, Inc. to finance the construction of ATG network sites in Alaska. The Alaska Facility had a six-year term and an interest rate of 10% per annum, compounded and payable quarterly. In April 2015, we paid in full and terminated the Alaska Facility.

**Restricted Cash**—Our restricted cash balances were \$7.9 million and \$7.5 million as of December 31, 2016 and 2015, respectively, which were primarily made up of letters of credit. Certain of the letters of credit require us to maintain restricted cash accounts in a similar amount, and are issued for the benefit of the landlords at our current office locations in Chicago, IL; Bensenville, IL and Broomfield, CO.

#### 7. Interest Costs

We capitalize a portion of our interest on funds borrowed during the active construction period of major capital projects. Capitalized interest is added to the cost of the underlying assets and amortized over the useful lives of the assets.

The following is a summary of our interest costs for the years ended December 31, 2016, 2015 and 2014 (in thousands):

	For the Years Ended December 31,		
	2016	2015	2014
Interest costs charged to expense	\$62,348	\$42,165	\$28,477
Amortization of deferred financing costs	3,803	4,169	3,173
Accretion of Convertible Notes	17,496	12,555	_
Non lender fees (1)			1,088
Interest expense	83,647	58,889	32,738
Interest costs capitalized to property and equipment	205	205	578
Interest costs capitalized to software	1,300	1,274	1,284
Total interest costs	\$85,152	\$60,368	\$34,600

<sup>(1)</sup> Primarily consists of fees paid to legal counsel and underwriters in connection with the amendments to the Amended and Restated Senior Term Facility.

#### 8. Common Stock and Preferred Stock

Common Stock—We have one class of common stock outstanding as of December 31, 2016 and 2015. Our common stock is junior to our preferred stock, if and when issued.

Our Third Amended and Restated Certificate of Incorporation authorizes a total of 500,000,000 shares of common stock with a par value of \$0.0001 per share.

Our Third Amended and Restated Certificate of Incorporation authorizes 100,000,000 shares of new preferred stock with a par value of \$0.01 per share. No shares of this new preferred stock have been issued. The preferred stock may be issued, from time to time, in one or more series as authorized by the Board of Directors, which has the authority to designate the terms of any series of preferred stock issued, including, without limitation, the number of shares to be included in such series of preferred stock, any dividend, redemption, conversion rights or voting powers and the designations, preferences and relative participating, optional or other special rights.

#### 9. Fair Value of Financial Assets and Liabilities

A three-tier fair value hierarchy has been established which prioritizes the inputs used in measuring fair value. These tiers include:

- Level 1—defined as observable inputs such as quoted prices in active markets;
- Level 2—defined as observable inputs other than Level 1 prices such as quoted prices for similar assets or liabilities, quoted prices in markets that are not active, or inputs that are observable or can be corroborated by observable market data for substantially the full term of the assets or liabilities; and
- Level 3—defined as unobservable inputs in which little or no market data exists, therefore requiring an entity to develop its own assumptions.

# Long-Term Debt:

Our financial assets and liabilities that are disclosed but not measured at fair value include the Senior Secured Notes, the Convertible Notes and the Amended and Restated Senior Term Facility (when outstanding), which are reflected on the consolidated balance sheet at cost. The fair value measurements are classified as Level 2 within the fair value hierarchy since they are based on quoted market prices of our instruments in markets that are not active. We estimated the fair value of the Senior Secured Notes, Convertible Notes and Amended and Restated Senior Term Facility (when outstanding) by calculating the upfront cash payment a market participant would require to assume these obligations. The upfront cash payments used in the calculations of fair value on our December 31, 2016 consolidated balance sheet, excluding any issuance costs, is the amount that a market participant would be able to lend at December 31, 2016 to an entity with a credit rating similar to ours and achieve sufficient cash inflows to cover the scheduled cash outflows under the Senior Secured Notes and the Convertible Notes. The calculated fair value of our Convertible Notes is highly correlated to our stock price and as a result significant changes to our stock price could have a significant impact on the calculated fair value of our Convertible Notes.

The fair value and carrying value of long-term debt as of December 31, 2016 and 2015 was as follows (*in thousands*):

	December 31, 2016		December	31, 2015
	Fair Value (1)	Carrying Value (2)	Fair Value (1)	Carrying Value (2)
Senior Secured Notes	\$572,000	\$525,000	\$ —	\$ —
Convertible Notes	275,000	292,024	352,000	274,528
Amended and Restated Senior Term Facility		_	299,000	301,503

<sup>(1)</sup> Fair value amounts are rounded to the nearest million.

We have held-to-maturity financial instruments where carrying value approximated fair value. There were no fair value adjustments to these financial instruments during the years ended December 31, 2016, 2015 and 2014.

<sup>(2)</sup> Carrying value of the Convertible Notes excludes unamortized debt discount of \$69.9 million and \$87.4 million, respectively, as of December 31, 2016 and 2015. See Note 6, "Long-Term Debt and Other Liabilities," for further information.

### 10. Business Segments and Major Customers

We operate our business through three operating segments: Commercial Aviation North America, or "CA-NA", Commercial Aviation Rest of World, or "CA-ROW" and Business Aviation, or "BA".

*CA-NA Segment:* Our CA-NA segment provides in-flight connectivity and wireless digital entertainment solutions to commercial airline passengers flying routes that generally begin and end within North America, which for this purpose includes the United States, Canada and Mexico.

CA-ROW Segment: Our CA-ROW business provides in-flight connectivity and wireless digital entertainment solutions to passengers flying on foreign-based commercial airlines and flights outside of North America for North American based commercial airlines. The routes included in our CA-ROW segment are those that begin and/or end outside of North America (as defined above) for which our international service is provided.

BA Segment: Our BA business provides equipment for in-flight connectivity along with voice and data services to the business aviation market. BA services include Gogo Biz, our in-flight broadband service that utilizes both our ATG network and our ATG spectrum, Passenger Entertainment, our in-flight entertainment service, and satellite-based voice and data services through strategic alliances with satellite companies. Customers include business aircraft manufacturers, owners, and operators, as well as government and military entities.

The accounting policies of the operating segments are the same as those described in Note 2, "Summary of Significant Accounting Policies". Intercompany transactions between segments are excluded as they are not included in management's performance review of the segments. We currently do not generate a material amount of foreign revenue. We do not segregate assets between segments for internal reporting. Therefore, asset-related information has not been presented. We do not disclose assets outside of the United States as we do not believe these assets are material as of December 31, 2016 and 2015. For our airborne assets, we consider only those assets installed in aircraft associated with international commercial airline partners to be owned outside of the United States.

Management evaluates performance and allocates resources to each segment based on segment profit (loss), which is calculated internally as net income (loss) attributable to common stock before interest expense, interest income, income taxes, depreciation and amortization, and certain non-cash charges (including amortization of deferred airborne lease incentives, stock-based compensation expense, adjustment to deferred financing costs and loss on extinguishment of debt). Segment profit (loss) is a measure of performance reported to the chief operating decision maker for purposes of making decisions about allocating resources to the segments and evaluating segment performance. In addition, segment profit (loss) is included herein in conformity with ASC 280-10, Segment Reporting. Management believes that segment profit (loss) provides useful information for analyzing and evaluating the underlying operating results of each segment. However, segment profit (loss) should not be considered in isolation or as a substitute for net income (loss) attributable to common stock or other measures of financial performance prepared in accordance with GAAP. Additionally, our computation of segment profit (loss) may not be comparable to other similarly titled measures computed by other companies.

Information regarding our reportable segments is as follows (in thousands):

	For the Year Ended December 31, 2016			
	CA-NA	CA-ROW	BA	Total
Service revenue	\$357,250	\$ 24,198	\$132,845	\$514,293
Equipment revenue	14,273	1,180	66,804	82,257
Total revenue	\$371,523	\$ 25,378	\$199,649	\$596,550
Segment profit (loss)	\$ 71,870	\$(87,637)	\$ 82,874	\$ 67,107
	For	the Year Ended	December 31,	2015
	CA-NA	CA-ROW	BA	Total
Service revenue	\$308,360	\$ 11,563	\$100,052	\$419,975
Equipment revenue	2,302	1	78,610	80,913
Total revenue	\$310,662	\$ 11,564	\$178,662	\$500,888
Segment profit (loss)	\$ 41,891	<u>\$(76,445)</u>	<u>\$ 71,884</u>	\$ 37,330
	For the Year Ended December 31, 2014			
	CA-NA	CA-ROW	BA	Total
Service revenue	\$248,625	\$ 2,129	\$ 71,993	\$322,747
Equipment revenue	2,128	13	83,603	85,744
Total revenue	\$250,753	\$ 2,142	\$155,596	\$408,491
Segment profit (loss)	\$ 25,953	\$(78,126)	\$ 63,002	\$ 10,829

A reconciliation of segment profit (loss) to the relevant consolidated amounts is as follows (in thousands):

	For the Years Ended December 31,			
	2016	2015	2014	
CA-NA segment profit	\$ 71,870	\$ 41,891	\$ 25,953	
CA-ROW segment loss	(87,637)	(76,445)	(78,126)	
BA segment profit	82,874	71,884	63,002	
Total segment profit	67,107	37,330	10,829	
Interest income	1,635	181	61	
Interest expense	(83,647)	(58,889)	(32,738)	
Depreciation and amortization	(105,642)	(87,036)	(64,451)	
Amortization of deferred airborne lease incentives (1)	29,519	20,163	12,769	
Stock compensation expense	(17,621)	(15,299)	(9,816)	
Adjustment of deferred financing fees	792	(2,251)	_	
Loss on extinguishment of debt	(15,406)	_	_	
Other income (expense)	72	(574)	(9)	
Loss before income taxes	<u>\$(123,191)</u>	\$(106,375)	<u>\$(83,355)</u>	

<sup>(1)</sup> Amortization of deferred airborne lease incentive only relates to our CA-NA and CA-ROW segments. See Note 14, "Leases" for further information.

**Major Customers and Airline Partnerships**—During the years ended December 31, 2016, 2015 and 2014, no customer accounted for more than 10% of our consolidated revenue. One airline partner accounted for approximately 18% and 33%, respectively, of consolidated accounts receivable as of December 31, 2016 and 2015.

Revenue earned through Delta Air Lines and American Airlines (including the former US Airways) accounted for approximately 50%, 50% and 48%, respectively, of consolidated revenue for the years ended December 31, 2016, 2015 and 2014.

## 11. Stock-Based Compensation

As of December 31, 2016, we maintained three stock-based employee compensation plans: the Gogo Inc. 2016 Omnibus Incentive Plan (the "2016 Omnibus Plan"), the Gogo Inc. 2013 Omnibus Incentive Plan (the "2013 Omnibus Plan"), and The Aircell Holdings Inc. Stock Option Plan (the "2010 Plan"), collectively referred to as the "Stock Plans". Our Stock Plans provide for the grant of both equity and cash awards, including non-qualified stock options, incentive stock options, stock appreciation rights, performance awards (shares and units), restricted stock, restricted stock units ("RSUs"), deferred share units ("DSUs") and other stock-based awards and dividend equivalents to eligible employees, directors and consultants, as determined by the Compensation Committee of our Board of Directors.

Under the Stock Plans, 20,006,570 shares of common stock were reserved for issuance. As of December 31, 2016, 5,885,574 shares remained available for grant under our Stock Plans.

The contractual life of granted options is 10 years. All options that are unvested as of the date on which a recipient's employment terminates, as well as vested options that are not exercised within a prescribed period following termination, are forfeited and become available for future grants. Options granted to date include options that a) vest 20% upon grant with the remainder vesting in equal annual increments over a four-year period, b) vest over a four-year period with 25% vesting at the end of each year or c) vest on the date of grant for options granted to directors. Beginning in 2013 we granted RSUs that vest in equal annual increments over a four-year period. Vested RSUs will be settled, at the discretion of the Compensation Committee, in shares of our common stock or in cash equal to the value of the applicable number of shares of our common stock on the vesting date. We also granted directors DSUs that were vested at grant. DSUs will be settled in shares of our common stock 90 days after the director ceases to serve as a director. Beginning in 2014 we granted restricted stock, which vests in equal annual increments over a four-year period. These shares are deemed issued as of the date of grant, but not outstanding until they vest. We intend to settle RSU, DSU and restricted stock awards in stock and have the shares available to do so. In June 2016, the Compensation Committee approved grants of both non-market based awards and market based awards. The contractual term and time-based vesting provisions for the non-market based awards are consistent with prior grants as noted above. The market based awards vest based on achieving one or more predetermined market conditions and completion of the same time-based vesting requirements applicable to the non-market based awards.

The following is a summary of our stock-based compensation expense included in the consolidated statements of operations for the years December 31, 2016, 2015 and 2014 (in thousands):

	2016	2015	2014
Cost of service revenue	\$ 1,499	\$ 1,161	\$ 673
Cost of equipment revenue	117	86	31
Engineering, design and development	3,046	2,584	1,669
Sales and marketing	4,962	4,107	1,618
General and administrative	7,997	7,361	5,825
Total stock-based compensation expense	\$17,621	\$15,299	\$9,816

A summary of stock option activity for the year ended December 31, 2016, is as follows:

	Number of Options	Weighted Average Exercise Price Per Share	Weighted Average Remaining Contractual Life	Aggregate Intrinsic Value (in thousands)
Options outstanding—January 1, 2016	7,236,539	\$16.23	7.07	\$17,210
Granted	2,138,435	\$ 8.67		
Exercised	(12,150)	\$ 9.08		
Forfeited	(157,853)	\$14.48		
Expired	(70,529)	\$16.89		
Options outstanding—December 31, 2016	9,134,442	\$14.50	6.81	\$ 1,789
Options exercisable—December 31, 2016	5,237,705	\$14.76	5.46	\$ 312

There were no stock options exercised prior to 2013. As of December 31, 2016, total unrecognized compensation costs related to unvested stock options were approximately \$17 million which is expected to be recognized over a weighted average period of approximately 2.6 years. The total grant date fair value of stock options vested in 2016, 2015 and 2014 was approximately \$9.0 million, \$8.0 million and \$6.0 million, respectively.

We estimate the fair value of stock options using the Black-Scholes option-pricing model. Weighted average assumptions used and weighted average grant date fair value of stock options granted for the years ended December 31, 2016, 2015, and 2014, were as follows:

	2016	2015	2014
Approximate risk-free interest rate	1.3%	1.8%	1.9%
Average expected life (years)	6.12	6.17	6.20
Dividend yield	N/A	N/A	N/A
Volatility	45.3%	33.1%	43.5%
Weighted average grant date fair value of common stock underlying options granted	\$8.72	\$20.65	\$17.67
Weighted average grant date fair value of stock options granted	\$3.88	\$ 7.39	\$ 7.88

The risk-free interest rate assumptions were based on the U.S. Treasury yield curve for the term that mirrored the expected term in effect at the time of grant. The expected life of our stock options was determined based upon a simplified assumption that the stock options will be exercised evenly from vesting to expiration, as we do not have sufficient historical exercise data to provide a reasonable basis upon which to estimate the expected life. The dividend yield was based on expected dividends at the time of grant. We have not been a public company long enough to calculate volatility based exclusively on our own common stock. Therefore, the expected volatility is calculated as of each grant date based on a weighting of our own common stock and reported data for a peer group of publicly traded companies for which historical information is available.

The following table summarizes the activities for our unvested RSUs and DSUs for the year ended December 31, 2016:

	Number of Underlying Shares	Average Grant Date Fair Value
Unvested—January 1, 2016	974,989	\$19.55
Granted	1,007,567	\$ 8.07
Vested	(351,239)	\$17.26
Forfeited/canceled	(134,269)	\$14.77
Unvested—December 31, 2016	1,497,048	\$12.81

Weighted

As of December 31, 2016, there was approximately \$16 million of unrecognized compensation cost related to unvested employee RSUs. This amount is expected to be recognized over a weighted-average period of approximately 2.7 years. The total grant date fair value of RSUs and DSUs vested in 2016 was approximately \$6 million.

The following table summarizes the activity for our restricted stock for the year ended December 31, 2016:

	Number of Underlying Shares	Weighted Average Grant Date Fair Value
Unvested—January 1, 2016	213,585	\$19.00
Granted	127,200	\$ 8.89
Vested	(64,113)	\$18.78
Forfeited/canceled	(42,700)	\$15.19
Unvested—December 31, 2016	233,972	\$14.26

As of December 31, 2016, there was approximately \$2.5 million of unrecognized compensation cost related to unvested employee restricted stock. This amount is expected to be recognized over a weighted-average period of approximately 2.3 years.

**ESPP**—In June 2013 the Board of Directors and stockholders approved the Employee Stock Purchase Plan ("ESPP"), which became effective on June 26, 2013. The ESPP allows eligible employees to purchase a limited number of shares of common stock during pre-specified offering periods at a discount established by the Compensation Committee not to exceed 15% of the fair market value of the common stock at the beginning or end of the offering period (whichever is lower). Under the ESPP, 424,594 shares were reserved for issuance and 143,085 shares of common stock were issued during the year ended December 31, 2016.

## 12. Employee Retirement and Postretirement Benefits

**401(k) Plan**—Under our 401(k) plan, all employees who are eligible to participate are entitled to make tax-deferred contributions, subject to Internal Revenue Service limitations. We match 100% of the employee's first 4% of contributions made, subject to annual limitations. Our matching contributions were \$4.1 million, \$3.5 million, and \$2.5 million for the years ended December 31, 2016, 2015 and 2014, respectively.

### 13. Income Tax

For financial reporting purposes, loss before income taxes included the following components for the years ended December 31, 2016, 2015, and 2014 (*in thousands*):

	For the Years Ended December 31,		
	2016	2015	2014
United States	\$(108,363)	\$ (97,398)	\$(78,075)
Foreign	(14,828)	(8,977)	(5,280)
Loss before income taxes	\$(123,191)	\$(106,375)	\$(83,355)

Significant components of the provision for income taxes for the years ended December 31, 2016, 2015, and 2014, are as follows (*in thousands*):

	For the Years Ended December 31,		
	2016	2015	2014
Current:			
Federal	\$ —	\$ —	\$ —
State	451	396	355
Foreign	24	15	
	475	411	355
Deferred:			
Federal	764	764	764
State	75	63	64
	839	827	828
Total	\$1,314	\$1,238	\$1,183

The provision for income taxes differs from income taxes computed at the federal statutory tax rates for the years ended December 31, 2016, 2015, and 2014 as a result of the following items:

	For the Years Ended December 31,		
	2016	2015	2014
Federal statutory rate	35.0%	35.0%	35.0%
Effect of:			
Change in valuation allowance	(38.5)	(37.1)	(37.9)
State income taxes-net of federal tax benefit	3.8	2.4	2.3
Other	(1.4)	(1.5)	(0.8)
Effective tax rate	(1.1)%	(1.2)%	(1.4)%

Components of the net deferred income tax asset as of December 31, 2016 and 2015 are as follows (*in thousands*):

	December 31, 2016	December 31, 2015
Deferred income tax assets:		
Compensation accruals	\$ 5,944	\$ 6,891
Stock options	15,480	11,260
Inventory	390	330
Warranty reserves	990	695
Deferred rent	14,976	14,808
Deferred revenue	65,391	49,867
Federal net operating loss (NOL)	125,257	111,893
State NOL	10,660	9,031
UNICAP adjustment	6,742	3,792
Finite-lived intangible assets	15,225	16,498
Other	3,924	2,444
Total deferred income tax assets	264,979	227,509
Deferred income tax liabilities:		
Fixed assets	(41,331)	(45,150)
Indefinite-lived intangible assets	(8,264)	(7,425)
Convertible Notes discount	(26,134)	(32,187)
Other	(264)	(226)
Total deferred income tax liabilities	(75,993)	(84,988)
Total deferred income tax	188,986	142,521
Valuation allowance	(197,250)	(149,946)
Net deferred income tax liability	\$ (8,264)	<u>\$ (7,425)</u>

We assess the realizability of the deferred tax assets by considering whether it is more likely than not that some portion or all of the deferred tax assets would not be realized through the generation of future taxable income. We generated net losses in fiscal years 2016, 2015, and 2014, which means we are in a domestic three-year cumulative loss position. As a result of this and other assessments in fiscal 2016, we concluded that a full valuation allowance is required for all deferred tax assets and liabilities except for deferred tax liabilities associated with indefinite-lived intangible assets.

As of December 31, 2016, the federal net operating loss ("NOL") carryforward amount was approximately \$347 million and the state NOL carryforward amount was approximately \$228 million. The federal NOLs begin to expire in 2031. The state NOLs expire in various tax years and began to expire in 2016.

Utilization of our NOL and tax credit carryforwards may be subject to substantial annual limitations due to the ownership change limitations provided by the Internal Revenue Code and similar state provisions. Such annual limitations could result in the expiration of the NOL and tax credit carryforwards before their utilization. The events that may cause ownership changes include, but are not limited to, a cumulative stock ownership change of greater than 50% over a three-year period.

We are subject to taxation in the United States, various states, Canada, Switzerland, Japan, Mexico, Brazil, Singapore, the United Kingdom, Hong Kong and Australia. With few exceptions, as of December 31, 2016, we are no longer subject to U.S. federal, state, local or foreign examinations by tax authorities for years before 2013.

As of December 31, 2016, 2015 and 2014, we did not have any unrecognized tax benefits.

We record penalties and interest relating to uncertain tax positions in the income tax provision line item in the consolidated statement of operations. No penalties or interest related to uncertain tax positions were recorded for the years ended December 31, 2016, 2015 or 2014. As of December 31, 2016 and 2015, we did not have a liability recorded for interest or potential penalties.

We do not expect there will be a change in the unrecognized tax benefits within the next 12 months.

#### 14. Leases

**Arrangements with Commercial Airlines**—Pursuant to contractual agreements with our airline partners, we place our equipment on commercial aircraft operated by the airlines for the purpose of delivering our service to passengers on the aircraft. Depending on the agreement, we may be responsible for the costs of installing and/ or deinstalling the equipment. Under one type of connectivity agreement we maintain legal title to our equipment; however, under a second, more prevalent type of connectivity agreement some of our airline partners make an upfront payment and take legal title to such equipment. The majority of the equipment transactions involve the transfer of legal title but have not met sales recognition for accounting purposes because the risks and rewards of ownership are not fully transferred due to our continuing involvement with the equipment, the length of the term of our agreements with the airlines, and restrictions in the agreements regarding the airlines' use of the equipment. We account for these equipment transactions as operating leases of space for our equipment on the aircraft. The assets are recorded as airborne equipment on our consolidated balance sheets, as noted in Note 4, "Composition of Certain Balance Sheet Accounts." Any upfront equipment payments are accounted for as lease incentives and recorded as deferred airborne lease incentives on our consolidated balance sheets and are recognized as a reduction of the cost of service revenue on a straight-line basis over the term of the agreement with the airline. We recognized \$29.5 million, \$20.2 million and \$12.8 million for the years ended December 31, 2016, 2015 and 2014, respectively, as a reduction to our cost of service revenue in our consolidated statements of operations. As of December 31, 2016, deferred airborne lease incentives of \$36.3 million and \$135.9 million are included in current and non-current liabilities, respectively, in our consolidated balance sheet. As of December 31, 2015, deferred airborne lease incentives of \$21.7 million and \$121.7 million are included in current and non-current liabilities, respectively, in our consolidated balance sheet.

The revenue share paid to our airline partners represent operating lease payments and are deemed to be contingent rental payments, as the payments due to each airline are based on a percentage of our CA-NA and CA-ROW service revenue generated from that airline's passengers, which is unknown until realized. Therefore, we cannot estimate the lease payments due to an airline at the commencement of our contract with such airline. Rental expense related to the arrangements with commercial airlines included in cost of service revenue is primarily comprised of these revenue share payments offset by the amortization of the deferred airborne lease incentives discussed above. Such rental expenses totaled a net charge of \$41.6 million, \$40.6 million and \$40.3 million, respectively, for the years ended December 31, 2016, 2015 and 2014.

One contract with one of our airline partners requires us to provide our airline partner with cash rebates of \$1.8 million in June 2017 and June 2018.

Leases and Cell Site Contracts—We have lease agreements relating to certain facilities and equipment, which are considered operating leases. Rent expense for such operating leases was \$11.8 million, \$15.3 million and \$10.8 million, respectively, for the years ended December 31, 2016, 2015 and 2014. Additionally, we have operating leases with wireless service providers for tower space and base station capacity on a volume usage basis ("cell site leases"), some of which provide for minimum annual payments. Our cell site leases generally provide for an initial noncancelable term with various renewal options. Total cell site rental expense was \$9.4 million, \$9.4 million and \$8.7 million, respectively, for the years ended December 31, 2016, 2015 and 2014.

Annual future minimum obligations for operating leases for each of the next five years and thereafter, other than the arrangements we have with our commercial airline partners, as of December 31 2016, are as follows (*in thousands*):

Years ending December 31,	Operating Leases
2017	\$19,903
2018	\$17,234
2019	\$16,130
2020	\$14,273
2021	\$14,005
Thereafter	\$94,605

**Equipment Leases**—We lease certain computer and network equipment under capital leases, for which interest has been imputed with annual interest rates ranging from approximately 7% to 11%. As of December 31, 2016, the computer equipment leases were classified as part of office equipment, furniture, and fixtures and other in our consolidated balance sheet at a gross cost of \$3.9 million. As of December 31, 2016 the network equipment leases were classified as part of network equipment in our consolidated balance sheet at a gross cost of \$7.5 million. Annual future minimum obligations under capital leases for each of the next five years and thereafter, as of December 31, 2016, are as follows (*in thousands*):

Years ending December 31,	Capital Leases
2017	\$3,274
2018	1,561
2019	458
2020	_
Thereafter	
Total minimum lease payments	5,293
Less: Amount representing interest	(500)
Present value of net minimum lease payments	\$4,793

The \$4.8 million present value of net minimum lease payments as of December 31, 2016 has a current portion of \$2.8 million included in current portion of long-term debt and capital leases and a non-current portion of \$2.0 million included in other non-current liabilities.

## 15. Commitments and Contingencies

**Contractual Commitments**—We have agreements with vendors to provide us with transponder and teleport satellite services. These agreements vary in length and amount and as of December 31, 2016 commit us to purchase transponder and teleport satellite services totaling approximately \$61.9 million in 2017, \$46.9 million in 2018, \$49.2 million in 2019, \$62.2 million in 2020, \$61.7 million in 2021 and \$284.2 million thereafter.

We have agreements with various vendors under which we have remaining commitments to purchase satellite-based systems, certifications and development services. Such commitments will become payable as we receive the equipment or certifications, or as development services are provided.

**Damages and Penalties**—We have entered into a number of agreements with our airline partners that require us to provide a credit or pay liquidated damages to our airline partners on a per aircraft, per day or per hour basis if we are delayed in delivering our equipment, unable to install our equipment on aircraft by specified

timelines or fail to comply with service level commitments. The maximum amount of future credits or payments we could be required to make under these agreements is uncertain because the amount of future credits or payments is based on certain variable inputs.

**Indemnifications and Guarantees**—In accordance with Delaware law, we indemnify our officers and directors for certain events or occurrences while the officer or director is, or was, serving at our request in such capacity. The maximum potential amount of future payments we could be required to make under this indemnification is uncertain and may be unlimited, depending upon circumstances. However, our Directors' and Officers' insurance does provide coverage for certain of these losses.

In the ordinary course of business we may occasionally enter into agreements pursuant to which we may be obligated to pay for the failure of performance of others, such as the use of corporate credit cards issued to employees. Based on historical experience, we believe that the risk of sustaining any material loss related to such guarantees is remote.

We have entered into a number of agreements, including our agreements with commercial airlines, pursuant to which we indemnify the other party for losses and expenses suffered or incurred in connection with any patent, copyright, or trademark infringement or misappropriation claim asserted by a third party with respect to our equipment or services. The maximum potential amount of future payments we could be required to make under these indemnification agreements is uncertain and is typically not limited by the terms of the agreements.

Salameno Litigation—On January 29, 2016, Charles Salameno, Maria-Angela Sanzone and John Jensen filed suit against us in the United States District Court for the Eastern District of New York, on behalf of a putative class of national purchasers and a subclass of New York purchasers of our connectivity service, alleging that we violated New York and other consumer protection laws, as well as unjust enrichment, fraud and breach of contract arising from alleged false statements in our marketing materials and alleged data security issues arising from our network design and certain network practices. The suit seeks unspecified damages. On May 23, 2016, we filed motions to compel arbitration and dismiss the suit, moving in the alternative to transfer venue and/or dismiss the suit for failure to state a claim. The Court held a hearing on June 30, 2016 where we argued the motions to dismiss and on July 7, 2016 the Court issued its opinion granting our motion to compel arbitration. On August 1, 2016, the Plaintiffs filed a motion asking the Court to reconsider its decision to compel arbitration. On September 15, 2016, the Court denied Plaintiffs' motion for reconsideration. On October 14, 2016, Plaintiffs filed a Notice of Appeal with the U.S. Court of Appeals for the Second Circuit. Plaintiffs' withdrew their appeal with prejudice on November 4, 2016, concluding the Salameno class action. Plaintiffs' have the right to pursue their claims individually in arbitration.

## 16. Canadian ATG Spectrum License

On July 17, 2012, Industry Canada issued to our Canadian subsidiary a subordinate license that allows us to use the Canadian ATG spectrum of which SkySurf Canada Communications Inc. ("SkySurf") is the primary licensee. On July 24, 2012 we entered into a subordinate license agreement (the "License Agreement") with SkySurf and on August 14, 2012 the agreement commenced. The License Agreement provides for our exclusive rights to use SkySurf's ATG spectrum licenses in Canada. The License Agreement has an initial term of ten years commencing on August 14, 2012 and, provided that the primary spectrum license agreement issued by Industry Canada to SkySurf remains in effect, is renewable at our option for an additional ten-year term following the initial expiration and thereafter for a further five-year term. We made a one-time payment of C\$3.3 million, which was equivalent to approximately U.S. \$3.3 million ("one-time payment"). The renewal of the primary spectrum license will depend upon the satisfaction by Gogo and SkySurf of certain conditions set forth in the license, including, without limitation, a network build-out requirement. The term of the License Agreement, including the initial ten-year term and any renewals, is contingent on the effectiveness and renewal of the primary spectrum license issued by Industry Canada to SkySurf on June 30, 2009, which expires on June 29, 2019. We pay SkySurf C\$0.1 million, which is equivalent to U.S. \$0.1 million, monthly during the initial

ten-year term of the License Agreement. Additionally, we make variable monthly payments based on the number of cell sites in Canada and the number of Canadian-domiciled commercial aircraft on which we provide our service.

As the License Agreement is for our exclusive use of a license, which is considered a right to use an intangible asset and thus not property, plant, or equipment, the agreement is not considered a lease for accounting purposes. As such, we recorded the SkySurf one-time payment as an asset in our consolidated balance sheet at the time of payment. As of December 31, 2016 and 2015 the one-time payment had balances of \$0.1 million and \$0.1 million included in prepaid expenses and other current assets, respectively, and \$1.9 million and \$1.9 million included in other non-current assets, respectively, in our consolidated balance sheet. The one-time payment is being amortized on a straight-line basis over the estimated term of the agreement of 25-years, which includes estimated renewal periods.

Amortization expense for the one-time payment for each of the next five years and thereafter is estimated to be as follows (*in thousands*):

Years ending December 31,	Canadian ATG Spectrum Amortization
2017	\$ 97
2018	\$ 97
2019	\$ 97
2020	\$ 97
2021	\$ 97
Thereafter	\$1,505

Amortization expense totaled \$0.1 million for the years ended December 31, 2016, 2015 and 2014.

The monthly payments are expensed as incurred and totaled approximately \$1.2 million, \$1.1 million and \$1.1 million for the years ended December 31, 2016, 2015 and 2014, respectively.

## 17. Quarterly Data (Unaudited)

Summarized quarterly financial information is as follows for each quarterly period for the years ended December 31, 2016 and 2015 (*in thousands, except per share amounts*):

	For	the Three Moi	nth Periods En	ided
	Mar 31, 2016	June 30, 2016	Sep 30, 2016	Dec 31, 2016
Total revenue	\$141,746	\$147,539	\$147,267	\$159,998
Operating loss	(8,592)	(7,096)	(8,774)	(2,175)
Net loss	(24,106)	(40,194)	(33,273)	(26,932)
Net loss to attributable to common stock	(24,106)	(40,194)	(33,273)	(26,932)
Net loss attributable to common stock per share—basic and				
diluted	\$ (0.31)	\$ (0.51)	\$ (0.42)	\$ (0.34)
Weighted average number of shares—basic and diluted	78,738	78,849	79,003	79,067
	For	the Three Moi	nth Periods En	nded
	Mar 31,	June 30,	Son 20	Dec 31,
	2015	2015	Sep 30, 2015	2015
Total revenue				
Total revenue Operating loss	2015	2015	2015	2015
	\$115,511	\$121,191	\$126,407	2015 \$137,779
Operating loss	2015 \$115,511 (9,790)	\$121,191 (8,568)	\$126,407 (11,563)	2015 \$137,779 (14,921)
Operating loss Net loss Net loss to attributable to common stock Net loss attributable to common stock per share—basic and	2015 \$115,511 (9,790) (20,092) (20,092)	2015 \$121,191 (8,568) (24,772) (24,772)	\$126,407 (11,563) (28,870)	\$137,779 (14,921) (33,879)
Operating loss Net loss Net loss to attributable to common stock	2015 \$115,511 (9,790) (20,092)	2015 \$121,191 (8,568) (24,772) (24,772)	\$126,407 (11,563) (28,870)	2015 \$137,779 (14,921) (33,879) (33,879)

## 18. Condensed Financial Information of Registrant

The following presents the condensed financial information of our parent company on a standalone basis.

Gogo Inc.
Condensed Balance Sheets
(in thousands)

	December 31, 2016	December 31, 2015
Assets:		
Cash and cash equivalents	\$ 1,071	\$ 71,889
Short-term investments	213,905	179,593
Prepaid expenses and other current assets	567	_
Investments and advances with subsidiaries	44,288	95,076
Total assets	\$259,831	\$346,558
Liabilities and Stockholders' equity:		
Total current liabilities	\$ 4,996	\$ 4,862
Long-term debt	286,964	268,076
Other non-current liabilities	8,264	7,425
Total liabilities	300,224	280,363
Total stockholders' equity (deficit)	_(40,393)	66,195
Total liabilities and stockholders' equity	\$259,831	\$346,558

Gogo Inc.
Condensed Statements of Operations and Comprehensive Loss

(in thousands)

	For the Years Ended December 31,		
	2016	2015	2014
Interest income	\$ (978)	\$ (158)	\$ (46)
Interest expense	32,461	24,609	
Total other (income) expense	31,483	24,451	(46)
Income (loss) before income taxes	(31,483)	(24,451)	46
Income tax provision	1,276	1,238	1,183
Equity losses of subsidiaries	91,746	81,924	83,401
Net loss	(124,505)	(107,613)	(84,538)
Comprehensive loss	\$(124,480)	\$(108,601)	\$(85,313)

Gogo Inc. Condensed Statements of Cash Flows

(in thousands)

	For the Years Ended December 31,		
	2016	2015	2014
Net loss	\$(124,505)	\$(107,613)	\$ (84,538)
Accretion of debt discount	17,496	12,555	_
Amortization of deferred financing costs	1,392	1,044	_
Subsidiary equity losses	91,746	81,924	83,401
Other operating activities	520	5,371	925
Net cash used in operating activities	(13,351)	(6,719)	(212)
Acquisition of short-term investments	(213,905)	(329,503)	(79,941)
Redemption of short-term investments	179,593	189,868	39,983
Investments and advances with subsidiaries	(23,312)	(71,964)	(62,832)
Purchases of restricted cash	(114)		
Net cash used in investing activities	(57,738)	(211,599)	(102,790)
Financing activities:			
Proceeds from issuance of convertible notes	_	361,940	
Forward transactions		(140,000)	
Other financing activities	271	(5,724)	3,065
Net cash provided by financing activities		216,216	3,065
Decrease in cash and cash equivalents		(2,102)	(99,937)
Cash and cash equivalents at the beginning of period		73,991	173,928
Cash and cash equivalents at the end of period		\$ 71,889	\$ 73,991

#### 19. Subsequent Events

On January 3, 2017, the Issuers issued \$65 million aggregate principal amount of additional Senior Secured Notes due 2022 (the "Additional Notes"). The Additional Notes were issued at a price equal to 108% of their face value resulting in gross proceeds of \$70.2 million. We intend to use the net proceeds from the issuance of the Additional Notes for working capital and other general corporate purposes. The Additional Notes have the same terms as the original Senior Secured Notes, except with respect to the issue date and issue price and are

treated as a single series for all purposes under the Indenture and the security documents that govern the Additional Notes and the original Senior Secured Notes. We paid approximately \$2.0 million of loan origination fees and financing costs related to the issuance of the Additional Notes, which has been accounted for as deferred financing costs. The deferred financing costs will be amortized over the contractual term of the Senior Secured Notes using the effective interest method.

On February 24, 2017, Gogo LLC, an indirect wholly-owned subsidiary of Gogo Inc., entered into a Unified In-Flight Connectivity Hardware, Services and Maintenance Agreement with American Airlines, which replaces and supersedes the Third Amended and Restated In Flight Connectivity Services Agreement between American Airlines and Gogo LLC, the In Flight Connectivity Services Agreement between American Airlines and Gogo LLC, the Amended and Restated In Flight Connectivity Services Agreement between US Airways and Gogo LLC and the Letter Agreement between Gogo LLC and American Airlines.

# Item 9. Changes in and Disagreements With Accountants on Accounting and Financial Disclosure None.

#### Item 9A. Control and Procedures

#### (a) Evaluation of Disclosure Controls and Procedures

Management, with the participation of our Chief Executive Officer and the Chief Financial Officer, evaluated the effectiveness of the design and operation of the Company's disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) of the Securities Exchange Act of 1934, as amended) as of December 31, 2016 that are designed to provide reasonable assurance that information required to be disclosed in this report is recorded, processed, summarized and reported within required time periods. Based upon this evaluation, our Chief Executive Officer and the Chief Financial Officer have concluded that our disclosure controls and procedures were effective as of December 31, 2016.

#### (b) Management's Annual Report on Internal Control Over Financial Reporting

The management of Gogo Inc. is responsible for establishing and maintaining adequate internal control over financial reporting as defined in Rules 13a—15(f) and 15d—15(f) under the Securities Exchange Act of 1934. Gogo's internal control over financial reporting is designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation and fair presentation of its published financial statements in accordance with accounting principles generally accepted in the United States of America.

The management of Gogo, with the participation of the Company's Chief Executive Officer and Chief Financial Officer, have assessed the effectiveness of Gogo's internal control over financial reporting as of December 31, 2016 based on the criteria set forth in Internal Control-Integrated Framework (2013 Framework) issued by the Committee of Sponsoring Organizations of the Treadway Commission. Based on our assessment, the Company's management concluded that our internal control over financial reporting was effective as of December 31, 2016.

Deloitte & Touche LLP, the Company's independent registered public accounting firm, has issued an attestation report on our internal control over financial reporting as of December 31, 2016, which report is included on Page 135 of this Form 10-K under the caption entitled "Report of Independent Registered Public Accounting Firm."

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of the effectiveness to future periods are subject to risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

#### (c) Changes in Internal Control over Financial Reporting

There have been no material changes to our internal control over financial reporting in connection with the evaluation required by Rules 13a-15(f) and 15d-15(f) under the Exchange Act during the most recent fiscal quarter that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

#### Item 9B. Other Information

On February 24, 2017, Gogo LLC, an indirect wholly-owned subsidiary of Gogo Inc., entered into a Unified In-Flight Connectivity Hardware, Services and Maintenance Agreement with American Airlines, which replaces and supersedes the Third Amended and Restated In Flight Connectivity Services Agreement between American Airlines and Gogo LLC, the In Flight Connectivity Services Agreement between American Airlines and Gogo LLC, the Amended and Restated In Flight Connectivity Services Agreement between US Airways and Gogo LLC and the Letter Agreement between Gogo LLC and American Airlines. For further information on the Unified Agreement, see Item 1, "Business—Contracts with Airline Partners."

#### REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors and Stockholders of Gogo Inc. Chicago, Illinois

We have audited the internal control over financial reporting of Gogo Inc. and subsidiaries (the "Company") as of December 31, 2016, based on criteria established in Internal Control—Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission. The Company's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying Management's Annual Report on Internal Control Over Financial Reporting. Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit.

We conducted our audit in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, testing and evaluating the design and operating effectiveness of internal control based on the assessed risk, and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

A company's internal control over financial reporting is a process designed by, or under the supervision of, the company's principal executive and principal financial officers, or persons performing similar functions, and effected by the company's board of directors, management, and other personnel to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of the inherent limitations of internal control over financial reporting, including the possibility of collusion or improper management override of controls, material misstatements due to error or fraud may not be prevented or detected on a timely basis. Also, projections of any evaluation of the effectiveness of the internal control over financial reporting to future periods are subject to the risk that the controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

In our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2016, based on the criteria established in Internal Control—Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the consolidated financial statements as of and for the year ended December 31, 2016 of the Company and our report dated February 27, 2017 expressed an unqualified opinion on those financial statements.

/s/ Deloitte & Touche LLP

Chicago, Illinois February 27, 2017

#### Part III

#### Item 10. Directors, Executive Officers and Corporate Governance

The information required by this item is incorporated by reference to our Proxy Statement for the 2017 Annual Meeting of Stockholders to be filed with the Securities and Exchange Commission ("SEC") within 120 days of the fiscal year ended December 31, 2016.

#### **Item 11. Executive Compensation**

The information required by this item is incorporated by reference to our Proxy Statement for the 2017 Annual Meeting of Stockholders to be filed with the SEC within 120 days of the fiscal year ended December 31, 2016.

# Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters

Information appearing under the caption "Security Ownership of Certain Beneficial Owners and Management" in our Proxy Statement for the 2017 Annual Meeting of Stockholders to be filed with the SEC within 120 days of the fiscal year ended December 31, 2016 is incorporated herein by reference.

The following table sets forth the number of shares of our common stock reserved for issuance under our equity compensation plans as of the end of 2016:

Plan Category	Number of securities to be issued upon exercise of outstanding options, warrants and rights (#)	Weighted average exercise price of outstanding options, warrants and rights (\$)	Number of securities remaining available for future issuance under equity compensation plans (excluding securities reflected in column (a)(#)
	(a)	<b>(b)</b>	(c)
Equity compensation plans approved by security holders	10,783,511(1)	14.50(2)	6,067,881(3)
Equity compensation plans not approved by security holders	N/A	N/A	N/A
Total	10,783,511	14.50	6,067,881

<sup>(1)</sup> Represents the number of shares associated with options, Restricted Stock Units and Deferred Share Units outstanding as of December 31, 2016.

## Item 13. Certain Relationships and Related Transactions, and Director Independence

The information required by this item is incorporated by reference to our Proxy Statement for the 2017 Annual Meeting of Stockholders to be filed with the SEC within 120 days of the fiscal year ended December 31, 2016.

#### Item 14. Principal Accounting Fees and Services

The information required by this item is incorporated by reference to our Proxy Statement for the 2017 Annual Meeting of Stockholders to be filed with the SEC within 120 days of the fiscal year ended December 31, 2016.

<sup>(2)</sup> Represents the weighted average exercise price of 9,134,442 the options disclosed in column (a).

<sup>(3)</sup> Represents the number of shares remaining available for future issuance under our Stock Option Plan, 2016 Omnibus Incentive Plan and 2013 Omnibus Incentive Plan and Employee Stock Purchase Plan. Of this number, only 4,062,740 shares are available for issuance with respect to Restricted Stock Units, Deferred Share Units and other awards based on the full value of stock (rather than an increase in value) under our 2016 Omnibus Incentive Plan and 2013 Omnibus Incentive Plan.

#### Part IV

## Item 15. Exhibits, Financial Statement Schedules

We have filed the following documents as part of this Form 10-K:

#### 1. Consolidated Financial Statements:

	Page No.
Report of Independent Registered Public Accounting Firm	94
Consolidated Balance Sheets	95
Consolidated Statements of Operations	96
Consolidated Statements of Comprehensive Loss	97
Consolidated Statements of Cash Flows	98
Consolidated Statements of Stockholders' Equity (Deficit)	99
Notes to Consolidated Financial Statements	100

#### 2. Financial Statement Schedules:

All schedules have been omitted because they are not required, not applicable, not present in amounts sufficient to require submission of the schedule, or the required information is otherwise included.

#### 3. Exhibits

See the Exhibit Index immediately following the signature page of this Annual Report on Form 10-K.

#### **SIGNATURES**

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, Gogo Inc. (the registrant) has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized, on February 27, 2017.

Gogo Inc.

By: /s/ Michael J. Small

Name: Michael J. Small

Title: President and Chief Executive Officer (Principal Executive Officer)

#### POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints Norman Smagley and Marguerite M. Elias, and each of them, his true and lawful attorneys-in-fact and agents, with full power to act separately and full power of substitution and resubstitution, for him and in his name, place and stead, in any and all capacities, to sign any and all amendments to this Annual Report on Form 10-K, and to file the same, with all exhibits thereto, and all other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorney-in-facts and agents, and each of them, full power and authority to do and perform each and every act and thing requisite and necessary to be done in and about the premises, as fully to all intents and purposes as they or he might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents or either of them or his or their substitute or substitutes may lawfully do or cause to be done by virtue hereof.

This Power of Attorney shall not revoke any powers of attorney previously executed by the undersigned. This Power of Attorney shall not be revoked by any subsequent power of attorney that the undersigned may execute, unless such subsequent power of attorney specifically provides that it revokes this Power of Attorney by referring to the date of the undersigned's execution of this Power of Attorney. For the avoidance of doubt, whenever two or more powers of attorney granting the powers specified herein are valid, the agents appointed on each shall act separately unless otherwise specified.

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of Gogo Inc. and in the capacities on the dates indicated, on February 27, 2017.

Signature	<u>Title</u>
/s/ Michael J. Small Michael J. Small	President and Chief Executive Officer and Director (Principal Executive Officer)
/s/ Norman Smagley Norman Smagley	Executive Vice President and Chief Financial Officer (Principal Financial Officer)
/s/ Michael P. Bayer Michael P. Bayer	Senior Vice President, Controller and Chief Accounting Officer (Principal Accounting Officer)
/s/ Ronald T. LeMay Ronald T. LeMay	Chairman of the Board
/s/ Robert L. Crandall Robert Crandall	Director
/s/ Hugh W. Jones Hugh W. Jones	Director
/s/ Michele Coleman Mayes Michele Coleman Mayes	Director
/s/ Robert H. Mundheim Robert H. Mundheim	Director
/s/ Christopher D. Payne Christopher D. Payne	Director
/s/ Oakleigh Thorne Oakleigh Thorne	Director
/s/ Charles C. Townsend Charles C. Townsend	Director
/s/ Harris N. Williams Harris N. Williams	Director

Exhibit Number	Description of Exhibits
3.1	Third Amended and Restated Certificate of Incorporation (incorporated by reference to Exhibit 3.1 to Form 10-Q filed on August 7, 2013 (File No. 001-35975))
3.2	Amended and Restated Bylaws (incorporated by reference to Exhibit 3.2 to Form 10-Q filed on August 7, 2013 (File No. 001-35975))
4.1	Form of Common Stock Certificate (incorporated by reference to Exhibit 4.1 to Gogo Inc. Registration Statement on Form S-1 (File No. 333-178727))
4.2	Registration Rights Agreement, dated as of December 31, 2009, by and between AC Holdco Inc. and the Class A Holders, the Ripplewood Investors, the Thorne Investors and the other investors named therein (incorporated by reference to Exhibit 4.5 to Gogo Inc. Registration Statement on Form S-1 (File No. 333-178727))
4.3	Indenture, dated as of March 9, 2015, by and between Gogo Inc. and U.S. Bank National Association (incorporated by reference to Exhibit 4.1 to Form 8-K filed on March 9, 2015 (File No. 001-35975))
4.4	Global 3.75% Convertible Senior Note due 2020, dated March 9, 2015 (incorporated by reference to Exhibit 4.2 to Form 8-K filed on March 9, 2015 (File No. 001-35975))
4.5	Indenture, dated as of June 14, 2016, between Gogo Intermediate Holdings LLC, Gogo Finance Co. Inc., Gogo Inc., the Subsidiary Guarantors party thereto and U.S. Bank National Association, as trustee and collateral agent (incorporated by reference to Exhibit 4.1 to Form 8-K filed on June 14, 2016 (File No. 001-35975))
4.6	Form of 12.500% Senior Secured Note due 2022 (incorporated by reference to Exhibit 4.2 to Form 8-K filed on June 14, 2016 (File No. 001-35975))
10.1.1	Amended and Restated In-Flight Connectivity Services Agreement, dated as of April 7, 2011, by and between Delta Air Lines, Inc. and Aircell LLC (incorporated by reference to Exhibit 10.1.1 to Gogo Inc. Registration Statement on Form S-1 (File No. 333-178727))
10.1.2	Amendment No. 1 to the Amended and Restated In-Flight Connectivity Services Agreement, dated as of September 27, 2011, by and between Delta Air Lines Inc. and Gogo LLC (f/k/a Aircell LLC) (incorporated by reference to Exhibit 10.1.2 to Gogo Inc. Registration Statement on Form S-1 (File No. 333-178727))
10.1.3	International In-Flight Connectivity Services Agreement, dated as of March 20, 2013, by and between Delta Air Lines Inc. and Gogo LLC (incorporated by reference to Exhibit 10.1.3 to Gogo Inc. Registration Statement on Form S-1 (File No. 333-178727))
10.1.4	Third Amended and Restated In-Flight Connectivity Services Agreement, dated as of September 13, 2012, by and between American Airlines, Inc. and Gogo LLC (incorporated by reference to Exhibit 10.1.4 to Gogo Inc. Registration Statement on Form S-1 (File No. 333-178727))
10.1.5	Amendment No. 1 to the Third Amended and Restated In-Flight Connectivity Services Agreement, dated as of September 13, 2012, by and between American Airlines, Inc. and Gogo LLC (incorporated by reference to Exhibit 10.1.5 to Gogo Inc. Registration Statement on Form S-1 (File No. 333-178727))
10.1.6	In-Flight Connectivity Services Agreement, dated as of September 14, 2012, by and between American Airlines, Inc. and Gogo LLC (incorporated by reference to Exhibit 10.1.6 to Gogo Inc. Registration Statement on Form S-1 (File No. 333-178727))

Exhibit Number	Description of Exhibits
10.1.7	Development, Test, and Deployment Products Standard Terms and Conditions, dated as of September 26, 2007, by and between Qualcomm Incorporated and Aircell LLC (incorporated by reference to Exhibit 10.1.13 to Gogo Inc. Registration Statement on Form S-1 (File No. 333-178727))
10.1.8	Master Supply and Services Agreement, dated as of August 17, 2011, by and between ZTE USA, Inc. and Gogo LLC (incorporated by reference to Exhibit 10.1.17 to Gogo Inc. Registration Statement on Form S-1 (File No. 333-178727))
10.1.9	Product Development and Manufacturing Agreement, dated as of October 3, 2011, by and between XipLink, Inc. and Gogo LLC (incorporated by reference to Exhibit 10.1.41 to Gogo Inc. Registration Statement on Form S-1 (File No. 333-178727))
10.1.10	Single Licensee Software Escrow Agreement, dated as of February 2, 2013, by and between XipLink, Inc. and Gogo LLC (incorporated by reference to Exhibit 10.1.42 to Gogo Inc. Registration Statement on Form S-1 (File No. 333-178727))
10.1.11	Amendment No. 1 to the Product Development and Manufacturing Agreement, dated as of October 3, 2011, by and between XipLink, Inc. and Gogo LLC (incorporated by reference to Exhibit 10.1.43 to Gogo Inc. Registration Statement on Form S-1 (File No. 333-178727))
10.1.12	Amendment No. 2 to the Product Development and Manufacturing Agreement, dated as of October 3, 2011, by and between XipLink, Inc. and Gogo LLC (incorporated by reference to Exhibit 10.1.44 to Gogo Inc. Registration Statement on Form S-1 (File No. 333-178727))
10.1.13	Amendment No. 1 to the International In-Flight Connectivity Services Agreement, dated as of February 25, 2014, by and between Delta Air Lines, Inc. and Gogo LLC (incorporated by reference to Exhibit 10.1.50 to Form 10-Q filed on May 12, 2014 (File No. 001-35975))
10.1.14	Amendment No. 2 to the Amended and Restated In-Flight Connectivity Services Agreement, dated as of February 25, 2014, by and between Delta Air Lines, Inc. and Gogo LLC (f/k/a Aircell LLC) (incorporated by reference to Exhibit 10.1.51 to Form 10-Q filed on May 12, 2014 (File No. 001-35975))
10.1.15	Amendment Two to Third Amended and Restated In-Flight Connectivity Services Agreement, dated as of May 30, 2014, by and between American Airlines, Inc. and Gogo LLC (incorporated by reference to Exhibit 10.1.52 to Form 10-Q filed on August 11, 2014 (File No. 001-35975))
10.1.16	Amended and Restated Manufacturing Services and Product Supply Agreement, dated as of May 19, 2014 between Qualcomm Technologies, Inc. and Gogo LLC (incorporated by reference to Exhibit 10.1.53 to Form 10-Q filed on August 11, 2014 (File No. 001-35975))
10.1.17	Amendment No. 3, dated as of April 1, 2015, to the Amended and Restated In-Flight Connectivity Services Agreement, by and between Delta Air Lines, Inc. and Gogo LLC (f/k/a Aircell LLC) (incorporated by reference to Exhibit 10.1.45 to Form 10-Q filed on August 6, 2015 (File No. 001-35975))
10.1.18	Amendment No. 2, dated as of April 1, 2015, to the International In-Flight Connectivity Services Agreement, by and between Delta Air Lines, Inc. and Gogo LLC (incorporated by reference to Exhibit 10.1.46 to Form 10-Q filed on August 6, 2015 (File No. 001-35975))
10.1.19	2Ku In-Flight Connectivity Services Agreement, dated as of April 1, 2015, by and between Delta Air Lines, Inc. and Gogo LLC (incorporated by reference to Exhibit 10.1.47 to Form 10-Q filed on August 6, 2015 (File No. 001-35975))

Exhibit Number	Description of Exhibits
10.1.20	Product Development and Manufacturing Agreement, dated as of November 13, 2012, by and between ThinKom Solutions, Inc. and Gogo LLC (incorporated by reference to Exhibit 10.1.48 to Form 10-Q/A filed on November 9, 2015 (File No. 001-35975))
10.1.21	Product Development and Manufacturing Agreement Exhibit A, Revision 1, dated as of March 27, 2012, by and between ThinKom Solutions, Inc. and Gogo LLC (incorporated by reference to Exhibit 10.1.49 to Form 10-Q filed on August 6, 2015 (File No. 001-35975))
10.1.22	Product Development and Manufacturing Agreement Exhibit A-2, dated as of September 12, 2013, by and between ThinKom Solutions, Inc. and Gogo LLC (incorporated by reference to Exhibit 10.1.50 to Form 10-Q filed on August 6, 2015 (File No. 001-35975))
10.1.23	Product Development and Manufacturing Agreement Exhibit A-2, Revision 1, dated as of June 10, 2014, by and between ThinKom Solutions, Inc. and Gogo LLC (incorporated by reference to Exhibit 10.1.51 to Form 10-Q filed on August 6, 2015 (File No. 001-35975))
10.1.24	Amendment No. 1 to the Product Development and Manufacturing Agreement, dated as of June 10, 2014, by and between ThinKom Solutions, Inc. and Gogo LLC (incorporated by reference to Exhibit 10.1.52 to Form 10-Q filed on August 6, 2015 (File No. 001-35975))
10.1.25	Amendment No. 2 to the Product Development and Manufacturing Agreement, dated as of January 31, 2015, by and between ThinKom Solutions, Inc. and Gogo LLC (incorporated by reference to Exhibit 10.1.53 to Form 10-Q filed on August 6, 2015 (File No. 001-35975)
10.1.26	Amendment No. 3 to the Product Development and Manufacturing Agreement, dated as of May 12, 2015, by and between ThinKom Solutions, Inc. and Gogo LLC (incorporated by reference to Exhibit 10.1.54 to Form 10-Q filed on August 6, 2015 (File No. 001-35975))
10.1.27	Amendment No. 1 to the Amended and Restated Manufacturing Services and Product Supply Agreement, dated December 10, 2015, by and between Qualcomm Technologies, Inc. and Gogo LLC (incorporated by reference to Exhibit 10.1.30 to Form 10-K filed on February 25, 2016 (File No. 001-35975))
10.1.28	Amendment No. 2 to the Master Supply and Services Agreement, dated as of December 31, 2015, by and between ZTE USA, Inc. and Gogo LLC (incorporated by reference to Exhibit 10.1.31 to Form 10-K filed on February 25, 2016 (File No. 001-35975))
10.1.29	Service Order, dated as of February 18, 2016, by and between New Skies Satellites B.V. and Gogo LLC (incorporated by reference to Exhibit 10.1.31 to Form 10-Q filed on May 6, 2016 (File No. 001-35975))
10.1.30	Service Order, dated as of February 18, 2016, by and between New Skies Satellites B.V. and Gogo LLC (incorporated by reference to Exhibit 10.1.32 to Form 10-Q filed on May 6, 2016 (File No. 001-35975))
10.1.31	Agreement, dated as of March 6, 2016, by and between IntelSat Corp. and Gogo LLC (incorporated by reference to Exhibit 10.1.33 to Form 10-Q filed on May 6, 2016 (File No. 001-35975))
10.1.32	Amendment Three to the Third Amended and Restated In-Flight Services Agreement, dated as of May 20, 2016, by and between American Airlines, Inc. and Gogo LLC (incorporated by reference to Exhibit 10.1.34 to Form 10-Q filed on August 4, 2016 (File No. 001-35975))

Exhibit Number	Description of Exhibits
10.1.33	Interim Agreement Regarding In-Flight Connectivity and Entertainment Services, dated as of December 1, 2015, by and among American Airlines, Inc., US Airways, Inc. and Gogo LLC (incorporated by reference to Exhibit 10.1.35 to Form 10-Q filed on August 4, 2016 (File No. 001-35975))
10.1.34	Amended and Restated Product Development and Manufacturing Agreement, dated as of April 1, 2016, by and between ThinKom Solutions, Inc. and Gogo LLC (incorporated by reference to Exhibit 10.1.36 to Form 10-Q filed on August 4, 2016 (File No. 001-35975))
10.1.35	Term Sheet, dated as of May 27, 2016, by and between American Airlines, Inc. and Gogo LLC (incorporated by reference to Exhibit 10.1.37 to Form 10-Q filed on August 4, 2016 (File No. 001-35975))
10.1.36	Amendment No. 1 to the 2Ku In-Flight Connectivity Services Agreement, dated as of April 1, 2016, by and between Delta Air Lines, Inc. and Gogo LLC (incorporated by reference to Exhibit 10.1.38 to Form 10-Q filed on August 4, 2016 (File No. 001-35975))
10.1.37 †	Amendment No. 2 to the 2Ku In-Flight Connectivity Service Agreement, dated as of October 14, 2016 by and between Delta Air Lines, Inc. and Gogo LLC
10.1.38 †	Letter Agreement, dated December 21, 2016, by and between Gogo LLC and American Airlines, Inc.
10.1.39 †	Letter Agreement, dated September 1, 2016, by and between Gogo LLC and ThinKom Solutions Inc.
10.1.40 †	Letter Agreement, dated September 6, 2016, by and between Gogo LLC and ThinKom Solutions Inc.
10.1.41 †	Statement of Work #1, dated November 4, 2016, to the 2Ku In-Flight Services Agreement by and between Delta Air Lines, Inc. and Gogo LLC
10.1.42 †	Statement of Work #2, dated December 16, 2016, to the 2Ku In-Flight Services Agreement by and between Delta Air Lines, Inc. and Gogo LLC
10.2.1 #	Employment Agreement, by and between Aircell Holdings Inc., Aircell LLC and Michael J. Small, effective as of July 29, 2010 (incorporated by reference to Exhibit 10.2.1 to Gogo Inc. Registration Statement on Form S-1 (File No. 333-178727))
10.2.2 #	Employment Agreement, by and between Aircell LLC and Norman Smagley, effective as of September 1, 2010 (incorporated by reference to Exhibit 10.2.2 to Gogo Inc. Registration Statement on Form S-1 (File No. 333-178727))
10.2.3 #	Employment Agreement, by and between Aircell LLC and Ash ElDifrawi, effective as of October 25, 2010 (incorporated by reference to Exhibit 10.2.3 to Gogo Inc. Registration Statement on Form S-1 (File No. 333-178727))
10.2.4 #	Employment Agreement, by and between Aircell LLC and John Wade, effective as of November 10, 2008 (incorporated by reference to Exhibit 10.2.4 to Gogo Inc. Registration Statement on Form S-1 (File No. 333-178727))
10.2.5 #	Amendment No. 1 to the Employment Agreement, by and between Aircell LLC and John Wade, effective as of January 31, 2009 (incorporated by reference to Exhibit 10.2.5 to Gogo Inc. Registration Statement on Form S-1 (File No. 333-178727))

Exhibit Number	Description of Exhibits
10.2.6 #	Employment Agreement, by and between Aircell Inc. and Anand Chari, effective as of July 12, 2006 (incorporated by reference to Exhibit 10.2.6 to Amendment No. 2 to Gogo Inc. Registration Statement on Form S-1 (File No. 333-178727))
10.2.7 #	Amendment No. 1 to the Employment Agreement, by and between Aircell Inc. and Anand Chari, effective as of January 1, 2009 (incorporated by reference to Exhibit 10.2.7 to Amendment No. 2 to Gogo Inc. Registration Statement on Form S-1 (File No. 333-178727))
10.2.8 #	Change in Control Severance Agreement, dated as of March 6, 2013, by and between Gogo Inc. and Michael J. Small (incorporated by reference to Exhibit 10.2.9 to Gogo Inc. Registration Statement on Form S-1 (File No. 333-178727))
10.2.9 #	Form of Change in Control Severance Agreement, for officers other than Michael J. Small (incorporated by reference to Exhibit 10.2.10 to Gogo Inc. Registration Statement on Form S-1 (File No. 333-178727))
10.2.10#	Amendment No. 2 to the Employment Agreement, between Gogo LLC (f/k/a Aircell LLC) and Anand Chari, effective as of April 1, 2015 (incorporated by reference to Exhibit 10.2.10 to Form 10-Q filed on August 6, 2015 (File No. 001-35975))
10.2.11#	Amendment No. 2 to the Employment Agreement, between Gogo LLC (f/k/a Aircell LLC) and John Wade, effective as of April 1, 2015 (incorporated by reference to Exhibit 10.2.11 to Form 10-Q filed on August 6, 2015 (File No. 001-35975))
10.2.12 #†	Transition Agreement and General Release, dated December 22, 2016, entered into by and between Gogo LLC and Norman Smagley
10.2.13 #†	Transition Agreement and General Release, dated December 21, 2016, entered into by and between Gogo LLC and Ash ElDifrawi
10.3.1 #	Aircell Holdings Inc. Stock Option Plan (incorporated by reference to Exhibit 10.3.1 to Gogo Inc. Registration Statement on Form S-1 (File No. 333-178727))
10.3.2 #	Amendment No. 1 to the Aircell Holdings Inc. Stock Option Plan, effective as of June 2, 2010 (incorporated by reference to Exhibit 10.3.2 to Gogo Inc. Registration Statement on Form S-1 (File No. 333-178727))
10.3.3 #	Amendment No. 2 to the Aircell Holdings Inc. Stock Option Plan, dated as of December 14, 2011 (incorporated by reference to Exhibit 10.3.3 to Gogo Inc. Registration Statement on Form S-1 (File No. 333-178727))
10.3.4 #	Amendment No. 3 to the Aircell Holdings Inc. Stock Option Plan, effective as of May 31, 2013 (incorporated by reference to Exhibit 10.3.4 to Gogo Inc. Registration Statement on Form S-1 (File No. 333-178727))
10.3.5 #	Form of Stock Option Agreement for Aircell Holdings Inc. Stock Option Plan (incorporated by reference to Exhibit 10.3.5 to Gogo Inc. Registration Statement on Form S-1 (File No. 333-178727))
10.3.6 #	Form of Stock Option Agreement for Aircell Holdings Inc. Stock Option Plan (for June 2013 grants) (incorporated by reference to Exhibit 10.3.6 to Gogo Inc. Registration Statement on Form S-1 (File No. 333-178727))
10.4.1 #	Gogo Inc. Omnibus Incentive Plan (incorporated by reference to Exhibit 10.5 to Gogo Inc. Registration Statement on Form S-1 (File No. 333-178727))

Exhibit Number	Description of Exhibits
10.4.2 #	Form of Stock Option Agreement for Gogo Inc. Omnibus Incentive Plan (incorporated by reference to Exhibit 10.5.2 to Form 10-K filed on March 14, 2014 (File No. 001-35975))
10.4.3 #	Form of Restricted Stock Unit Agreement for Gogo Inc. Omnibus Incentive Plan (incorporated by reference to Exhibit 10.4.3 to Form 10-K filed on February 27, 2015 (File No. 001-35975))
10.4.4 #	Form of Restricted Stock Agreement for Gogo Inc. Omnibus Incentive Plan (incorporated by reference to Exhibit 10.4.4 to Form 10-K filed on February 27, 2015 (File No. 001-35975))
10.4.5 #	Gogo Inc. 2016 Omnibus Incentive Plan (incorporated by reference to Exhibit 10.4.5 to Form 10-Q filed on August 4, 2016 (File No. 001-35975))
10.4.6 #	Form of Stock Option Agreement for Gogo Inc. 2016 Omnibus Incentive Plan (incorporated by reference to Exhibit 10.4.6 to Form 10-Q filed on August 4, 2016 (File No. 001-35975))
10.4.7 #	Form of Performance Stock Option Agreement for Gogo Inc. 2016 Omnibus Incentive Plan (incorporated by reference to Exhibit 10.4.7 to Form 10-Q filed on August 4, 2016 (File No. 001-35975))
10.4.8 #	Form of Restricted Stock Unit Agreement for Gogo Inc. 2016 Omnibus Incentive Plan (incorporated by reference to Exhibit 10.4.8 to Form 10-Q filed on August 4, 2016 (File No. 001-35975))
10.4.9 #	Form of Performance Restricted Stock Unit Agreement for Gogo Inc. 2016 Omnibus Incentive Plan (incorporated by reference to Exhibit 10.4.9 to Form 10-Q filed on August 4, 2016 (File No. 001-35975))
10.5.1 #	Gogo Inc. Annual Incentive Plan (as amended as of April 14, 2016) (incorporated by reference to Exhibit 10.4.10 to Form 10-Q filed on August 4, 2016 (File No. 001-35975))
10.6 #	Gogo Inc. Section 409A Specified Employee Policy (incorporated by reference to Exhibit 10.7 to Gogo Inc. Registration Statement on Form S-1 (File No. 333-178727))
10.7.1 #	Form of Indemnification Agreement entered into between Gogo Inc. and each of its Directors (incorporated by reference to Exhibit 10.8.1 to Gogo Inc. Registration Statement on Form S-1 (File No. 333-178727))
10.7.2 #	Form of Indemnification Agreement entered into between Gogo Inc. and each of its Officers (incorporated by reference to Exhibit 10.8.2 to Gogo Inc. Registration Statement on Form S-1 (File No. 333-178727))
10.8.1	Guarantee and Collateral Agreement, dated as of June 21, 2012, by and between Aircell Business Aviation Services LLC, Gogo LLC and Gogo Intermediate Holdings LLC, and Morgan Stanley Senior Funding, Inc., as Collateral Agent (incorporated by reference to Exhibit 10.9.3 to Gogo Inc. Registration Statement on Form S-1 (File No. 333-178727))
10.8.2	Amendment and Restatement Agreement, dated as of July 30, 2014, among Gogo Intermediate Holdings LLC, Aircell Business Aviation Services LLC and Gogo LLC, as Borrowers, the several lenders from time to time parties thereto, and Morgan Stanley Senior Funding, Inc., as Administrative Agent and Collateral Agent (incorporated by reference to Exhibit 10.9.4 to Form 8-K filed on August 1, 2014 (File No. 001-35975))
10.8.3	Collateral Agreement, dated as of June 14, 2016, among Gogo Intermediate Holdings LLC, Gogo Finance Co. Inc., Gogo Inc., the Subsidiary Guarantors and U.S. National Bank Association, as trustee and collateral agent (incorporated by reference to Exhibit 10.1 to Form 8-K filed on June 14, 2016 (File No. 001-35975))

Exhibit Number	Description of Exhibits
10.8.4	Collateral Agency Agreement, dated as of June 14, 2016, among Gogo Intermediate Holdings LLC, Gogo Finance Co. Inc., Gogo Inc., the Subsidiary Guarantors and U.S. National Bank Association, as trustee and collateral agent (incorporated by reference to Exhibit 10.2 to Form 8-K filed on June 14, 2016 (File No. 001-35975))
10.8.5	Patent Security Agreement, dated as of June 14, 2016, by Gogo LLC, in favor of U.S. Bank National Association, as collateral agent (incorporated by reference to Exhibit 10.3 to Form 8-K filed on June 14, 2016 (File No. 001-35975))
10.8.6	Trademark Security Agreement, dated as of June 14, 2016, by Gogo LLC, in favor of U.S. Bank National Association, as collateral agent (incorporated by reference to Exhibit 10.4 to Form 8-K filed on June 14, 2016 (File No. 001-35975))
10.8.7	Copyright Security Agreement, dated as of June 14, 2016, by Gogo LLC, in favor of U.S. Bank National Association, as collateral agent (incorporated by reference to Exhibit 10.5 to Form 8-K filed on June 14, 2016 (File No. 001-35975))
10.8.8	Trademark Security Agreement, dated as of June 14, 2016, by Gogo Business Aviation LLC, in favor of U.S. Bank National Association, as collateral agent (incorporated by reference to Exhibit 10.6 to Form 8-K filed on June 14, 2016 (File No. 001-35975))
10.9.1 #	Director Compensation Policy, adopted June 16, 2015 (incorporated by reference to Exhibit 10.9.1 to Form 10-Q/A filed on February 25, 2016 (File No. 001-35975))
10.9.2 #	Form of Director Deferred Share Unit Agreement for Gogo Inc. Omnibus Incentive Plan (incorporated by reference to Exhibit 10.10.2 to Form 10-K filed on March 14, 2014 (File No. 001-35975))
10.9.3 #	Form of Director Stock Option Agreement for Gogo Inc. Omnibus Incentive Plan (incorporated by reference to Exhibit 10.10.3 to Form 10-K filed on March 14, 2014 (File No. 001-35975))
10.10.1	Purchase Agreement, dated March 3, 2015, by and among Gogo Inc., J.P. Morgan Securities LLC and Merrill Lynch, Pierce, Fenner & Smith Incorporated (incorporated by reference to Exhibit 10.1 to Form 8-K filed on March 9, 2015 (File No. 001-35975))
10.10.2	Forward Stock Purchase Confirmation, dated as of March 3, 2015, by and between Gogo Inc. and JPMorgan Chase Bank, National Association, London Branch (incorporated by reference to Exhibit 10.2 to Form 8-K filed on March 9, 2015 (File No. 001-35975))
10.10.3	Forward Stock Purchase Confirmation, dated as of March 3, 2015, by and between Gogo Inc. and Merrill Lynch International, acting through its agent, Merrill Lynch, Pierce, Fenner & Smith Incorporated (incorporated by reference to Exhibit 10.3 to Form 8-K filed on March 9, 2015 (File No. 001-35975))
21.1	List of Subsidiaries
23.1	Consent of Independent Registered Public Accounting Firm—Deloitte & Touche LLP
24.1	Power of Attorney (included on signature page)
31.1	Certification of Chief Executive Officer pursuant to Exchange Act Rules 13a-14(a) and 15d-14(a), as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
31.2	Certification of Chief Financial Officer pursuant to Exchange Act Rules 13a-14(a) and 15d-14(a), as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002

Exhibit Number	Description of Exhibits
32.1*	Certification of the Chief Executive Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002
32.2*	Certification of the Chief Financial Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002
101.INS	XBRL Instance Document
101.SCH	XBRL Taxonomy Extension Schema Document
101.CAL	XBRL Taxonomy Extension Calculation Linkbase Document
101.LAB	XBRL Taxonomy Extension Labels Linkbase Document
101.PRE	XBRL Taxonomy Extension Presentation Linkbase Document
101.DEF	XBRL Taxonomy Extension Definition Linkbase Document

<sup>\*</sup> This certification accompanies the Form 10-K to which it relates, is not deemed filed with the Securities and Exchange Commission and is not to be incorporated by reference into any filing of the Registrant under the Securities Act of 1933, as amended, or the Securities Exchange Act of 1934, as amended (whether made before or after the date of the Form 10-K), irrespective of any general incorporation language contained in such filing.

<sup>#</sup> Indicates management contract or compensatory plan or arrangement

<sup>†</sup> Certain provisions of this exhibit have been omitted and separately filed with the Securities and Exchange Commission pursuant to a request for confidential treatment.

# List of Subsidiaries of Gogo Inc.

Name of Subsidiary	Jurisdiction of Organization	Ownership Percentage
AC BidCo LLC	Delaware	100%
Gogo Air International Sarl	Switzerland	100%
Gogo Air Mexico, S. de R.L. de C.V.	Mexico	100%
Gogo Air Pty. Ltd.	Australia	100%
Gogo Brasil Participações Ltda.	Brazil	100%
Gogo Brasil Telecomunicações Ltda.	Brazil	100%
Gogo Business Aviation LLC	Delaware	100%
Gogo Connectivity Ltd.	Canada	100%
Gogo Finance Co. Inc.	Delaware	100%
Gogo Godo-Kaisha	Japan	100%
Gogo Intermediate Holdings LLC	Delaware	100%
Gogo International Holdings LLC	Delaware	100%
Gogo International Limited	United Kingdom	100%
Gogo LLC	Delaware	100%
Gogo Pvt. Ltd.	Hong Kong	100%
Gogo Singapore Pte. Ltd.	Singapore	100%

#### CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in Registration Statement No. 333-210713 on Form S-3 and Registration Statement Nos. 333-189594 and 333-212072 on Form S-8 of our reports dated February 27, 2017, relating to the consolidated financial statements of Gogo Inc. and subsidiaries (the "Company"), and the effectiveness of the Company's internal control over financial reporting, appearing in this Annual Report on Form 10-K of Gogo Inc. and subsidiaries for the year ended December 31, 2016.

/s/ Deloitte & Touche LLP

Chicago, Illinois February 27, 2017

# CERTIFICATION OF CHIEF EXECUTIVE OFFICER PURSUANT TO RULE 13a-14(a) OF THE EXCHANGE ACT, AS AMENDED, AS ADOPTED PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

#### I, Michael J. Small, certify that:

- 1. I have reviewed this Annual Report on Form 10-K of Gogo Inc.;
- 2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
- 3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
- 4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rule 13a-15(f) and 15d-15(f)) for the registrant and have:
  - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
  - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
  - (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
  - (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
- 5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
  - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
  - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: February 27, 2017

/s/ Michael J. Small
Michael J. Small
President and Chief Executive Officer
(Principal Executive Officer)

# CERTIFICATION OF CHIEF FINANCIAL OFFICER PURSUANT TO RULE 13a-14(a) OF THE EXCHANGE ACT, AS AMENDED, AS ADOPTED PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

#### I, Norman Smagley, certify that:

- 1. I have reviewed this Annual Report on Form 10-K of Gogo Inc.;
- 2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
- 3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
- 4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rule 13a-15(f) and 15d-15(f)) for the registrant and have:
  - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
  - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
  - (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
  - (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
- 5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
  - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
  - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: February 27, 2017

/s/ Norman Smagley
Norman Smagley
Executive Vice President and Chief Financial Officer
(Principal Financial Officer)

## CERTIFICATION OF CHIEF EXECUTIVE OFFICER PURSUANT TO 18 U.S.C. SECTION 1350, AS ADOPTED PURSUANT TO SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

- I, Michael J. Small, President and Chief Executive Officer of Gogo Inc. (the "Company"), do hereby certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that to the best of my knowledge:
  - (1) the Annual Report on Form 10-K of the Company for the year ended December 31, 2016 (the "Report") fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
  - (2) the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company for the periods presented therein.

Date: February 27, 2017

/s/ Michael J. Small

Michael J. Small President and Chief Executive Officer (Principal Executive Officer)

## CERTIFICATION OF CHIEF FINANCIAL OFFICER PURSUANT TO 18 U.S.C. SECTION 1350, AS ADOPTED PURSUANT TO SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

I, Norman Smagley, Executive Vice President and Chief Financial Officer of Gogo Inc. (the "Company"), do hereby certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that to the best of my knowledge:

- (1) the Annual Report on Form 10-K of the Company for the year ended December 31, 2016 (the "Report") fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
- (2) the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company for the periods presented therein.

Date: February 27, 2017

/s/ Norman Smagley

Norman Smagley Executive Vice President and Chief Financial Officer (Principal Financial Officer)

# Supplemental information to Annual Report

Gogo Inc.
Adjusted EBITDA Reconciliation
In Thousands

		i weive World Strided					
	Decen	nber 31, 2016	December 31, 2015	December 31, 2014	December 31, 2013	December 31, 2012	December 31, 2011
Net loss attributable to Common Stock	\$	(124,505)	\$ (107,613)	\$ (84,538)	\$ (145,851)	\$ (95,640)	\$ (17,897)
Interest income		(1,635)	(181)	(61)	(64)	(77)	(72)
Interest Expense		83,647	58,889	32,738	29,272	8,913	280
Depreciation		105,642	87,036	64,451	55,509	36,907	32,673
Income taxes		1,314	1,238	1,183	1,107	1,036	1,053
EBITDA		64,463	39,369	13,773	(60,027)	(48,861)	16,037
Fair Value derivative adjustments		-	-	-	36,305	(9,640)	(58,740)
Preferred stock dividends		-	-	-	29,277	52,427	31,331
Accretion of preferred stock		-	-	-	5,285	10,499	10,181
Amortization of deferred airborne lease		(29,519)	(20,163)	(12,769)	(8,074)	(3,671)	(1,456)
Stock compensation expense		17,621	15,299	9,816	5,621	3,545	1,795
Adjustment of deferred financing costs		(792)	2,251	-	-	5,023	-
Loss on extinguishment of debt		15,406	-	-	-	-	-
Adjusted EBITDA	\$	67,179	\$ 36,756	\$ 10,820	\$ 8,387	\$ 9,322	\$ (852)

Twelve Months Ended

\* \* \*

Certain disclosures in this annual report include certain "forward-looking statements" within the meaning of the federal securities laws that are based largely on our current expectations and reflect various estimates and assumptions by the Company. Forward-looking statements are subject to known and unknown risks, trends and uncertainties, many of which may be beyond our control, that could cause actual results and achievements to differ materially from those expressed in such forward-looking statements. Such risks, trends and uncertainties include those described under the heading "Risk Factors" in the Company's Annual Report on Form 10-K filed with the U.S. Securities and Exchange Commission on February 27, 2017. The words "may," "might," "could" "should," "estimate," "project," "plan," "anticipate," "expect," "intend," "outlook," "seek," "designed," "assume," "implied," "believe" and similar expressions generally identify forward-looking statements. Readers are cautioned not to place undue reliance on such forward-looking statements, which are being made as of the date of this annual report. Any forward-looking information presented herein is made only as of the date of this annual report we undertake no obligation to update any forward-looking statements, whether as a result of new information, future events or otherwise.

# Board of Directors

Ronald T. LeMay Chairman of the Board Chairman and CEO of Farmlink, Inc. and MachineryLink Sharing, Inc.

**Robert L. Crandall** *Director*Former Chairman and CEO of
AMR Corporation and American Airlines

**Hugh Jones** *Director*President of Sabre Airline Solutions

Michele Coleman Mayes Director
Vice President, General Counsel and
Secretary for the New York Public Library

Robert H. Mundheim Director
Of Counsel to Shearman & Sterling LLP
Professor of Corporate Law and Finance at the
University of Arizona James E. Rogers College of Law

**Christopher Payne** *Director* COO of DoorDash, Inc.

Michael J. Small Director
President and CEO

**Oakleigh Thorne** *Director* CEO of Thorndale Farm, LLC

**Charles C. Townsend** *Director* Managing General Partner of Bluewater Wireless II, L.P.

**Harris N. Williams** *Director*Senior Managing Director of
WF Holding Company LLC

# Corporate Officers

#### Michael J. Small

President and CEO

#### Anand K. Chari

Executive Vice President and Chief Technology Officer

#### Jonathan B. Cobin

Executive Vice President and Chief Commercial Officer

#### Marguerite M. Elias

Executive Vice President, General Counsel and Secretary

#### **Norman Smagley**

Executive Vice President and Chief Financial Officer

#### John Wade

Executive Vice President and Chief Operating Officer

#### Michael Bayer

Senior Vice President and Chief Accounting Officer

#### Karen Jackson

Senior Vice President, Human Resources

# Shareholder Information:

#### Headquarters

111 N Canal St Chicago, IL 60606 USA gogoair.com

#### **Common stock listing**

Gogo common stock is listed on the NASDAQ Global Select Market under the ticker symbol "GOGO."

#### Transfer agent and registrar

#### Computershare Trust Company, N.A.

PO Box 43070 Providence RI 02940 USA

Shareholders with questions may call our transfer agent toll-free at 800.962.4284

#### **Investor relations**

Varvara Alva VP, Investor Relations and Treasurer
111 N Canal St
Chicago, IL 60606
USA
+1 312 517 6460
IR@gogoair.com

#### Financial reports

A copy of the Gogo Inc. Annual Report on Form 10-K filed with the U.S. Securities and Exchange Commission is available on our Investor Relations website at ir.gogoair.com, or via emailed request to Investor Relations at IR@gogoair.com.

#### **Annual meeting**

The 2017 Annual Meeting of Shareholders will be held at 9 am Central Time, on Wednesday June 7, 2017 at Gogo's Headquarters, located at 111 N Canal St, Chicago, IL. All shareholders are cordially invited to attend. A formal notice of meeting, proxy statement and proxy will be mailed or made available electronically to shareholders of record at the close of business on April 13, 2017.

#### Independent registered public accounting firm

#### **Deloitte & Touche LLP**

111 S Wacker Drive Chicago, IL 60606 USA

#### **Corporate governance**

At in gogoain com, shareholders can view the company's code of business conduct and ethics, code of financial ethics, and corporate governance guidelines.

Gogo Inc. 111 N Canal St Chicago, IL 60606 USA gogoair.com