



**INTERNATIONAL BUREAU
REPORT**

2014 U.S. International Circuit Capacity Data

January 2016

Cathy Hsu
Industry Economist
Telecommunications and Analysis Division

U.S. International Circuit Capacity Report

Executive Summary: This year's U.S. International Circuit Capacity Report (Circuit Capacity Report) highlights circuit capacity data submitted by U.S. facilities-based common carriers, non-common carrier satellite operators, cable landing licensees, and U.S. international carriers that owned or leased capacity on a submarine cable between the United States and any foreign point, as of December 31, 2014 ("Filing Entities").¹ The data in this Circuit Capacity Report are collected pursuant to the new Section 43.62 reporting requirements.

Notable highlights:

- The new Section 43.62 reporting requirements have substantially improved the Commission's data collection efforts from prior years by streamlining data collections and enhancing the quality of the data. Importantly, 94.6% of the total available capacity on all U.S. international submarine cables is now captured, compared to 7.1% of the same data collected under the previous reporting requirements.²
- Overall submarine cable capacity has grown around 36% per year for 2007-2014 and is expected to grow around 29% for 2014-2016.³
- As of December 31, 2014, the top eight foreign landing points (in descending order) for U.S. international submarine cables are Colombia, Japan, the United Kingdom, Panama, Brazil, Venezuela, Mexico, and Australia.⁴
- The distribution of U.S. international cable landing points varies across the Americas, Atlantic, and Pacific regions.⁵
- Of the Americas, Atlantic, and Pacific regions, the Atlantic region has the largest fraction of non-activated capacity in 2014.⁶

¹ 47 CFR § 43.62 (2015); see *Reporting Requirements for U.S. Providers of International Telecommunications Services; Amendment of Part 43 of the Commission's Rules*, IB Docket No. 04-112, Second Report and Order, 28 FCC Rcd 575, 608, para. 108, 616-17, Appendix A (2013) (*Part 43 Second Report and Order*); *Filing Manual for Section 43.62 Annual Reports*, 27-29, paras. 134-39 (IB March 2015), https://apps.fcc.gov/edocs_public/attachmatch/DOC-332732A1.pdf (*Section 43.62 Filing Manual*). Section 43.62 replaced Section 43.82 of the Commission's rules. 47 CFR § 43.82 (2014).

² See *infra* Figure 11; *2013 Section 43.82 Circuit Status Data*, Table 7-A (IB July 2015) (*2013 Section 43.82 Circuit Status Report*), https://apps.fcc.gov/edocs_public/attachmatch/DOC-334397A2.pdf.

³ See *infra* Figure 5/Table 6(A).

⁴ See *infra* Figure 7.

⁵ See *infra* Figure 6/Attachment B.

⁶ See *infra* Figure 8/Table 7. Non-activated capacity is unused capacity that is not available for immediate use. *Section 43.62 Filing Manual* at 29. Activated capacity, by contrast, consists of capacity used for providing services or facilities to customers (on either a common carrier or non-common carrier basis); capacity reserved for internal company use; capacity reserved for restoration services; and unused capacity that is available for immediate use. *Id.*

Reporting Requirements: This is the first report issued under Section 43.62 of the Commission's rules, which became effective on February 11, 2015⁷ and was adopted for the purpose of obtaining data (including data from non-common carriers) to help the Commission better assess the current state of the U.S. international telecommunications marketplace.⁸ Among other things, Section 43.62 streamlined the Commission's data collection for terrestrial and satellite circuits by requiring the submission of certain data in world totals only, rather than on a country-by-country basis. It also required non-common carrier cables and cable landing licensees to submit data by cable systems, rather than on a country-by-country basis.

For the Circuit Capacity Report, Section 43.62 and the accompanying 43.62 Filing Manual⁹ require Filing Entities to submit certain data in three separate circuit capacity filings, i.e., the (1) International Terrestrial and Satellite Circuits Report, (2) Submarine Cable Operators Report, and (3) Submarine Cable Capacity Holders Report. Below, we present data highlights from each of these filings.

Data in this Circuit Capacity Report are reported in three different units: (1) International Terrestrial and Satellite Circuits Report – in 64 kilobits per second (kbps) circuit units (for purposes of assessing regulatory fees);¹⁰ (2) Submarine Cable Operators Report – in gigabit per second (Gbps) circuit units (an industry standard used to measure capacity); and (3) Submarine Cable Capacity Holders Report – in Synchronous Transport Module level-1 (STM-1) units (commonly used unit in commercial contracts in the industry).

A list of all figures and tables included in this Circuit Capacity Report is set forth in Exhibit 1 to this document.

⁷ Federal Communications Commission, Reporting Requirements for U.S. Providers of International Telecommunications Services, 80 Fed. Reg. 7547 (Feb. 11, 2015).

⁸ See *Part 43 Second Report and Order*, 28 FCC Rcd at 576, para. 2.

⁹ 47 CFR § 43.62; *Section 43.62 Filing Manual*.

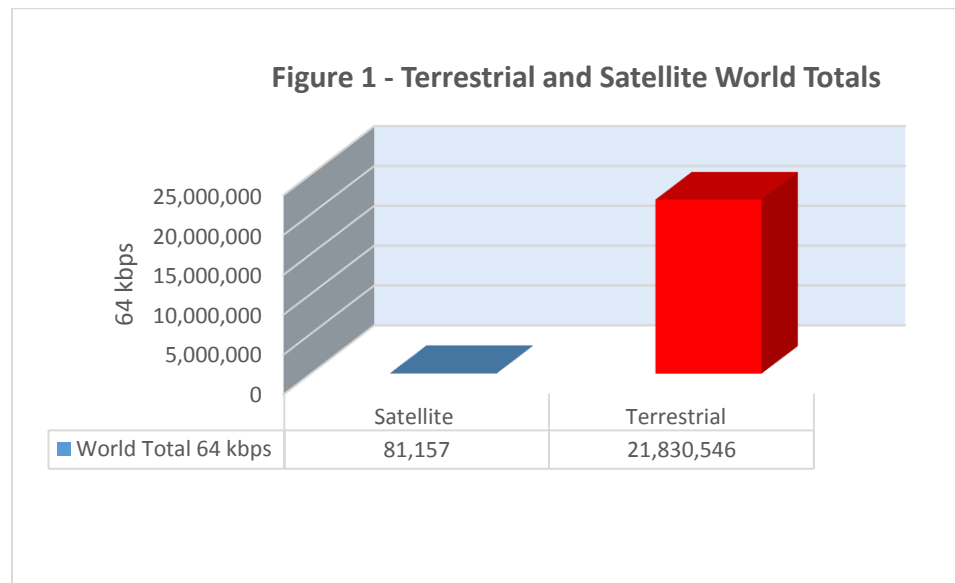
¹⁰ See 47 CFR § 1.1156.

Data Highlights

1. International Terrestrial and Satellite Circuits Reports

Each facilities-based common carrier is required to file a report showing its active common carrier terrestrial or satellite circuits between the United States and any foreign point as of December 31 of the preceding calendar year. The terrestrial and satellite circuits are reported in world-total counts of 64 kbps circuit units. In addition, non-common carrier satellite operators are required to report a world-total count of circuits used by themselves or their affiliates, or sold or leased to any customer as of December 31 of the reporting period, other than to an international common carrier authorized by the Commission to provide U.S. international common carrier services.¹¹

There were 81,157 satellite circuits and 21,830,546 terrestrial circuits as of December 31, 2014.¹² We derived **Figure 1** from the data in **Table 5**.



2. Submarine Cable Operators Reports

Submarine cable landing licensees are required to file available and planned capacity information for each cable system.¹³ Commission staff previously collected this data from carriers (that generally

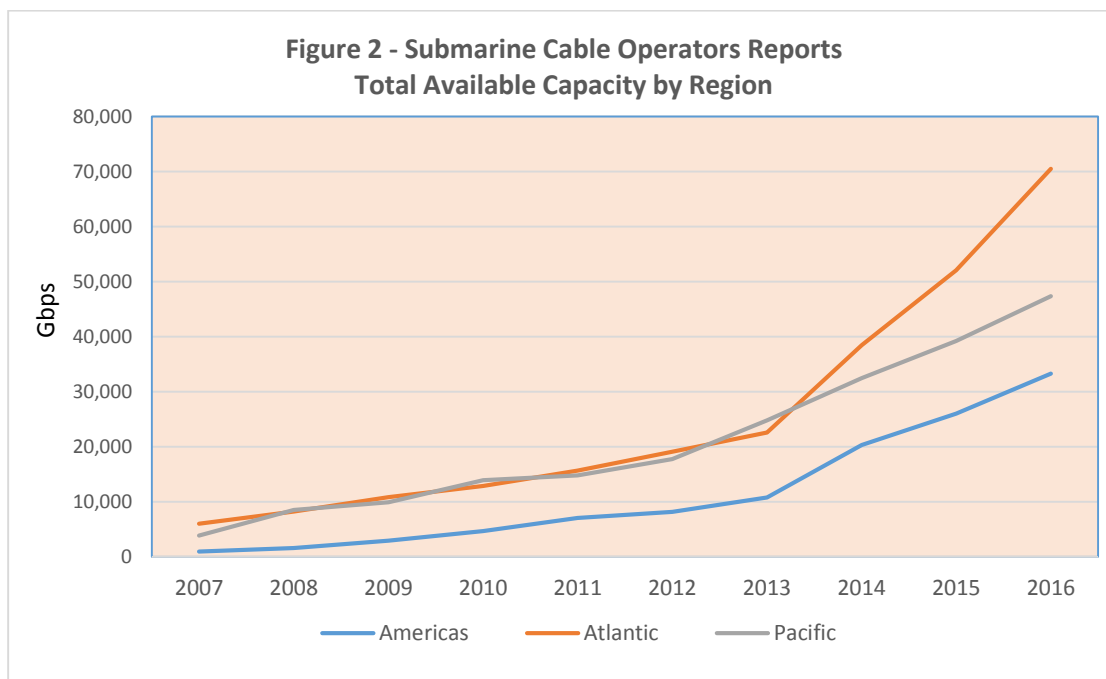
¹¹ *Section 43.62 Filing Manual* at 27, para. 135. Previously, non-common carrier satellite providers did not need to file. See 47 CFR § 43.82 (2014). These providers paid regulatory fees based on their self-reported world-total numbers.

¹² A few entities have not yet filed their International Terrestrial and Satellite Circuits Report as of the filing deadline.

¹³ For submarine cables with multiple owners, only the lead operator is required to file this report. 47 CFR § 43.62; *Section 43.62 Filing Manual* at 28, paras. 136-37.

provided the data on a voluntary basis) and released such information to the public in Table 7-A in previous 43.82 Circuit Status Reports.¹⁴ This year, **Table 6** provides information on available capacity data (year-end 2014) and planned capacity data (year-end 2016). Notably, in 2014, there were 20 cables in the Americas region, eight in the Atlantic region, and 14 in the Pacific region. In 2014, the Atlantic region accounted for 42.1% of total available capacity, followed by the Pacific region (35.6%), and the Americas region (22.3%).¹⁵

Figure 2, below, illustrates the total available capacity of U.S. international cables that have landed in the Americas, Atlantic, and Pacific regions from 2007 to 2016. The trend analysis in Figure 2 extracts 2007-2013 cable capacity data from the *2013 Section 43.82 Circuit Status Report* and compiles the information in **Table 6(A)**, which provides detailed cable-by-cable capacity trend data for 2007-2016 (with the exception of 2015).¹⁶



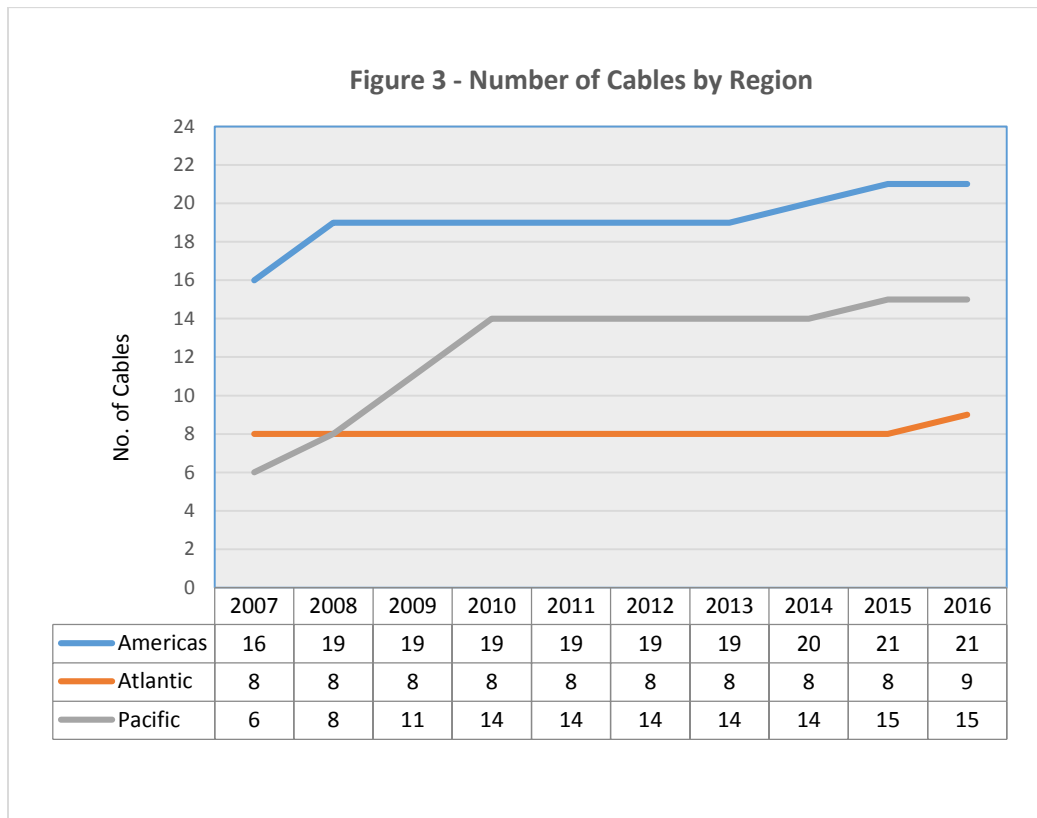
¹⁴ See, e.g., *2013 Section 43.82 Circuit Status Report*, Table 7-A. Table 7-A listed operational and planned trans-oceanic cables licensed by the Commission that provide or will provide international services to and from the United States. Table 7-A also included the reported activated and idle cable circuits as a percentage of total reported available cable system capacity for the three oceanic regions.

¹⁵ See *infra* Table 6.

¹⁶ See *infra* Table 6(A); *2013 Section 43.82 Circuit Status Report*. Section 43.62 of the Commission’s rules requires the filing of available cable capacity as of December 31 of the previous calendar year (i.e., 2014) and planned capacity two years out from the reporting date (i.e., 2016). 47 CFR 43.62; *Section 43.62 Filing Manual* at 28. Thus, there is a gap in data for 2015. In this Circuit Capacity Report, we use forecast compound growth rate data for 2014-2016 (from the 2014 filings) to interpolate 2015 data points.

Of note, the Atlantic region has the largest available capacity although no new U.S. international cables have been built in that region since 2003.¹⁷

Figure 3, derived from **Table 6(A)**, provides the number of cables in each region over time.¹⁸



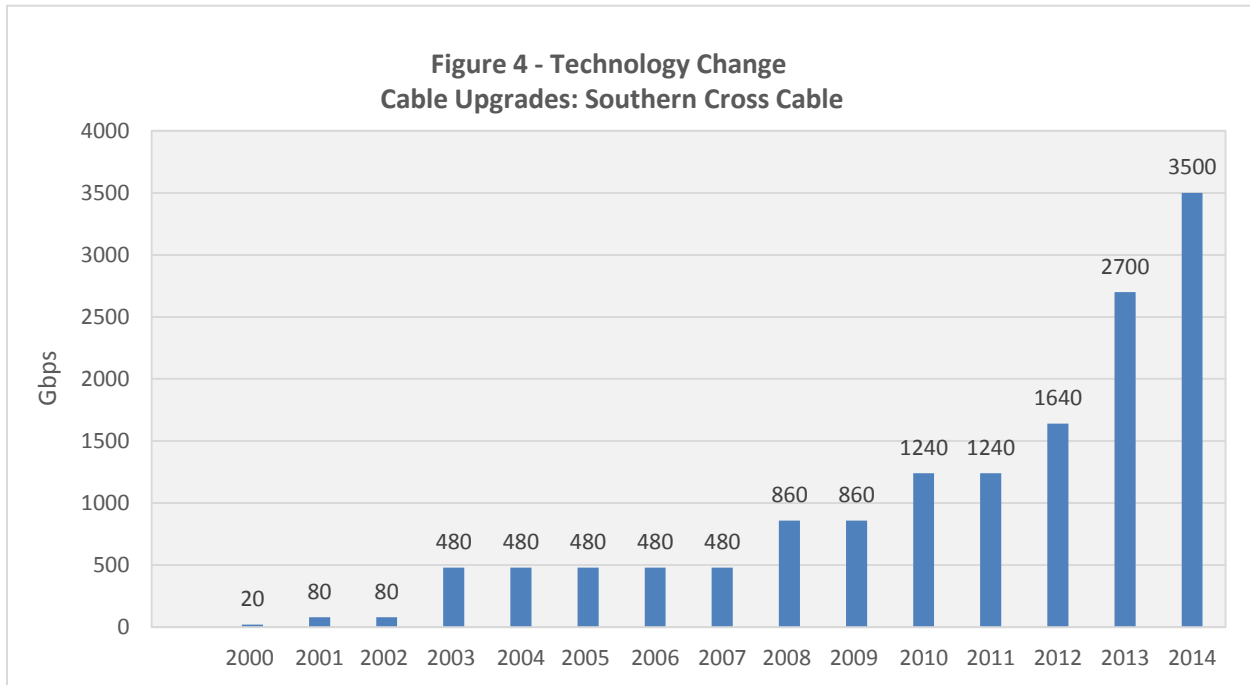
The growth in capacity in the Atlantic region even in the absence of new U.S. international cable landings since 2003 was made possible by, among other things, developments in submarine cable technology. The technology standard has evolved from 280 megabits per second (Mbps) per pair (TAT-8 cable) in the mid-1980s, to 5 Gbps (TPC-5) in the mid-1990s, to 10 Gbps in 1998. Since 1998, the 10 Gbps fiber pair has been the standard for all new cables. There are plans to deploy 40 Gbps or even 100 Gbps fiber pairs. Moreover, the use of Wavelength Division Multiplexing (WDM) technology can multiply the capacity from one pair to multiple pairs depending on the wavelength (or color) of the cable.¹⁹ Figure 4, below, provides an example.

¹⁷ 2013 Section 43.82 Circuit Status Data, Table 7-A, at 33-34.

¹⁸ See *infra* Table 6(A).

¹⁹ <https://www.techopedia.com/definition/3451/wavelength-division-multiplexing-wdm> (last visited Dec. 30, 2015); https://en.wikipedia.org/wiki/Wavelength-division_multiplexing (last visited Dec. 30, 2015).

Figure 4, derived from **Table 6(A)**, shows the capacity expansion of the Southern Cross cable since its inception in 2000.²⁰ Southern Cross has upgraded its capacity from 20 Gbps in 2000 to 3,500 Gbps in 2014.²¹ All upgrades were conducted at the cable station; no new fiber pairs were laid in the water. Southern Cross was not alone in doing this, as other cables have undergone similar upgrades.²²

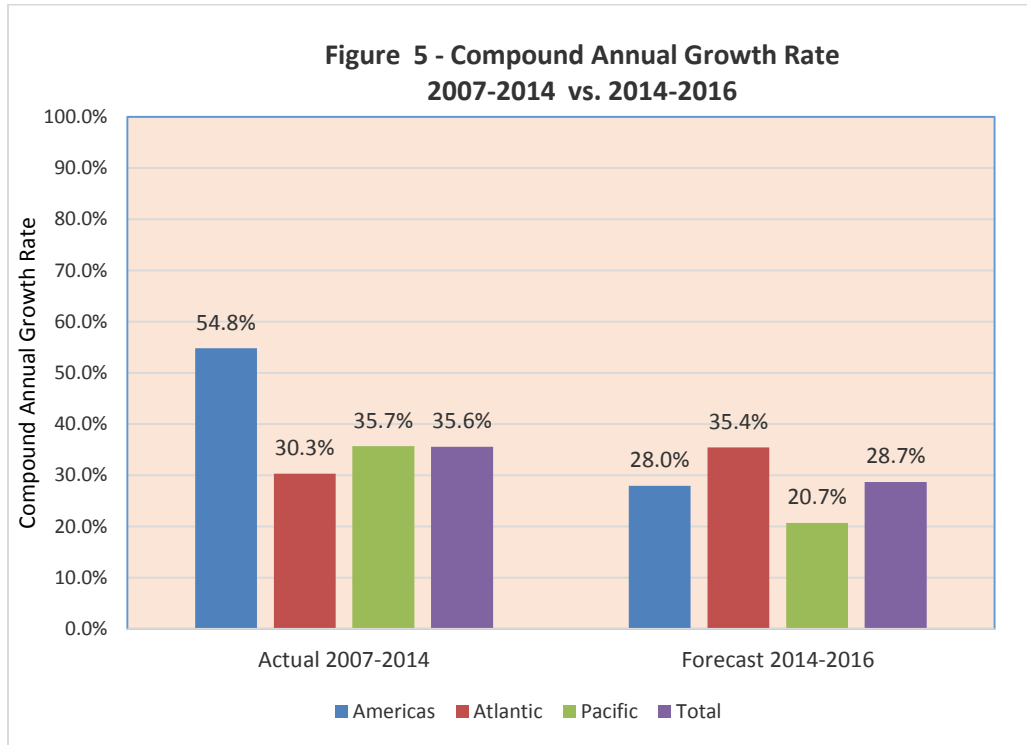


²⁰ See *infra* Table 6(A).

²¹ Southern Cross Cable Network, Current Capability, <http://www.southerncrosscables.com/home/network/overviewandmap> (last visited Dec. 30, 2015) (“The Southern Cross network capacity has undergone a number of major upgrades and expansions from the original 20Gbps in November 2000. The current expansion (Phase H) will increase total lit network capacity to 2.7 Terabits per second from December 2013, and will utilise 40Gbps and 100Gbps wavelength technology.”)

²² Lightwave, AAG Picks Ciena for Transpacific Submarine Cable Upgrade (Oct. 9, 2014), <http://www.lightwaveonline.com/articles/2014/10/aag-picks-ciena-for-transpacific-submarine-cable-upgrade.html>; Ciena, Ciena to Further Upgrade Japan-U.S. Cable Network (Jan. 19, 2015), <http://www.ciena.com/about/newsroom/press-releases/Ciena-to-Further-Upgrade-Japan-US-Cable-Network.html>.

Figure 5, derived from **Table 6(A)**, shows two periods of Compound Annual Growth Rate for 2007-2014 and 2014-2016 in the Americas, Atlantic, and Pacific regions as well as an average of the three regions.²³ This figure shows that the Atlantic region had a slightly lower growth rate than the other regions for 2007-2014. In the forecast period for 2014-2016, the Atlantic region’s growth rate is higher than the other regions.



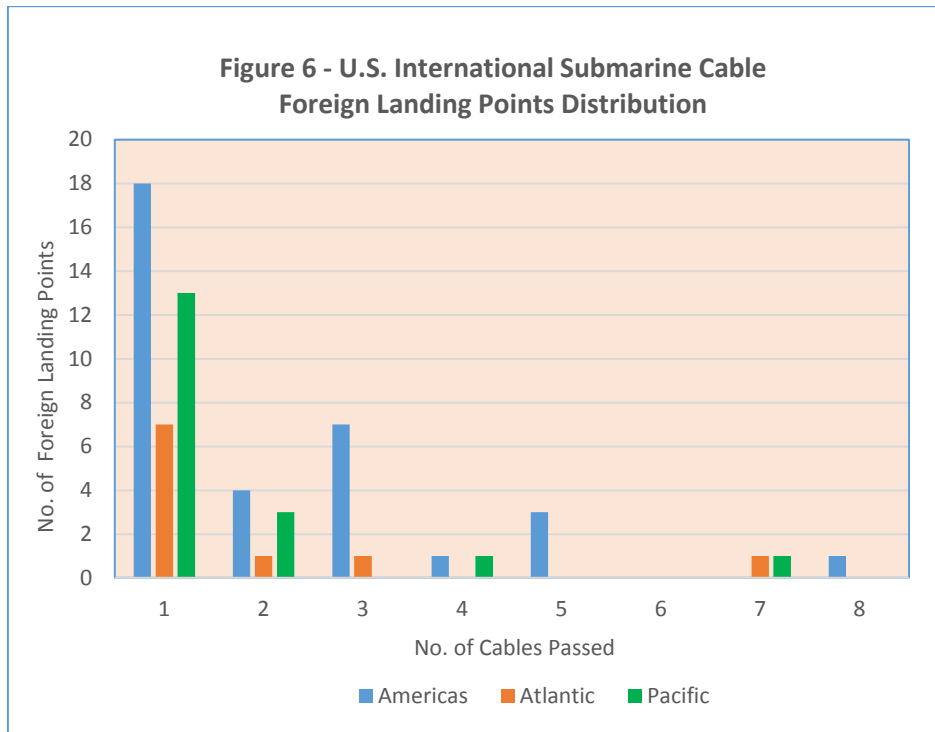
As shown in **Attachment A** to this Circuit Capacity Report, the Atlantic region has fewer foreign submarine cable landing points²⁴ than the Americas and Pacific regions.²⁵ There are 19 foreign landing points in the Atlantic region, compared to 74 landing points in the Americas and 30 in the Pacific region.

²³ See *infra* Table 6(A).

²⁴ A foreign point “refers to a foreign country or other geographic location outside the United States.” *Section 43.62 Filing Manual*, Appendix B: Definitions.

²⁵ See *infra* Attachment A.

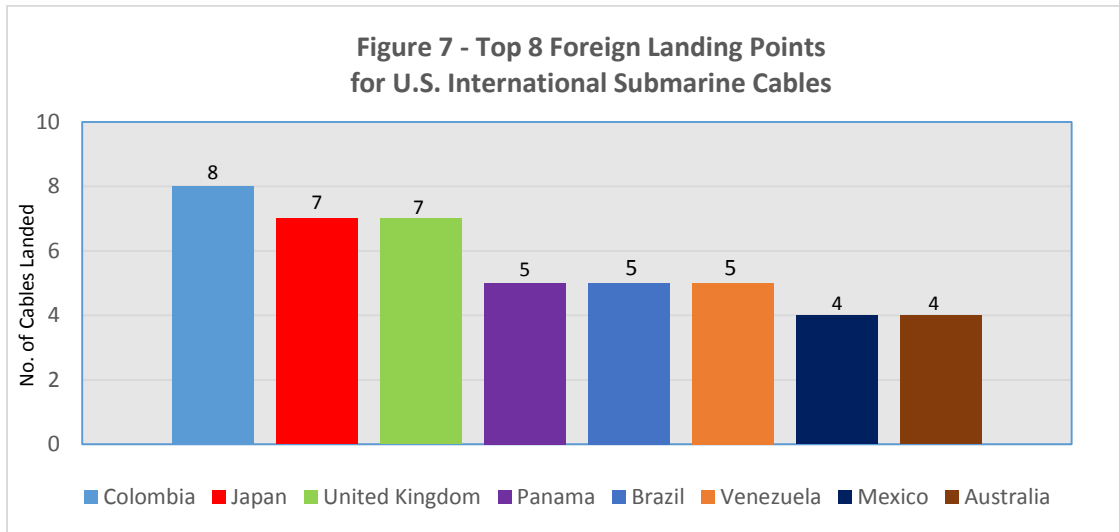
Figure 6, which is derived from **Attachment B** to this Circuit Capacity Report, presents the distribution of the number of U.S. international submarine cables that landed²⁶ among the three regions. Figure 6 groups the number of foreign landing points passed by the number of U.S. international submarine cables.²⁷ Based on the data, we find that 18 foreign landing points in the Americas region and 13 foreign landing points in the Pacific region are each passed by only one U.S. international submarine cable. Seven foreign landing points in the Atlantic region are each passed by one U.S. international submarine cable.



²⁶ For purposes of this Circuit Capacity Report, points where submarine cables connect to terrestrial facilities are referred to as “landing points,” and where submarine cables connect they are also said to “land” or “pass.” We note that submarine cables can land in multiple landing points and interconnect with terrestrial facilities at each such point.

²⁷ See *infra* Attachment B.

Figure 7 lists the top eight foreign landing points for U.S. international cables. As of December 31, 2014, the top foreign landing points were Colombia (with eight U.S. international cables); Japan and the United Kingdom (with seven each); Panama, Brazil, and Venezuela (with five each); and Mexico and Australia (with four each).²⁸



3. Submarine Cable Capacity Holders Reports

Any U.S. international carrier or cable landing licensee that owned or leased capacity on a submarine cable between the United States and any foreign point on December 31 of the reporting period is required to file capacity amounts for the following categories: (1) owned capacity; (2) net indefeasible rights-of-use (IRUs); (3) net inter-carrier leaseholds (ICLs); (4) net capacity held (i.e., the total of categories (1) through (3)); (5) activated capacity; and (6) non-activated capacity.²⁹

The submarine cable capacity holders report provides information on cable capacity in use.³⁰

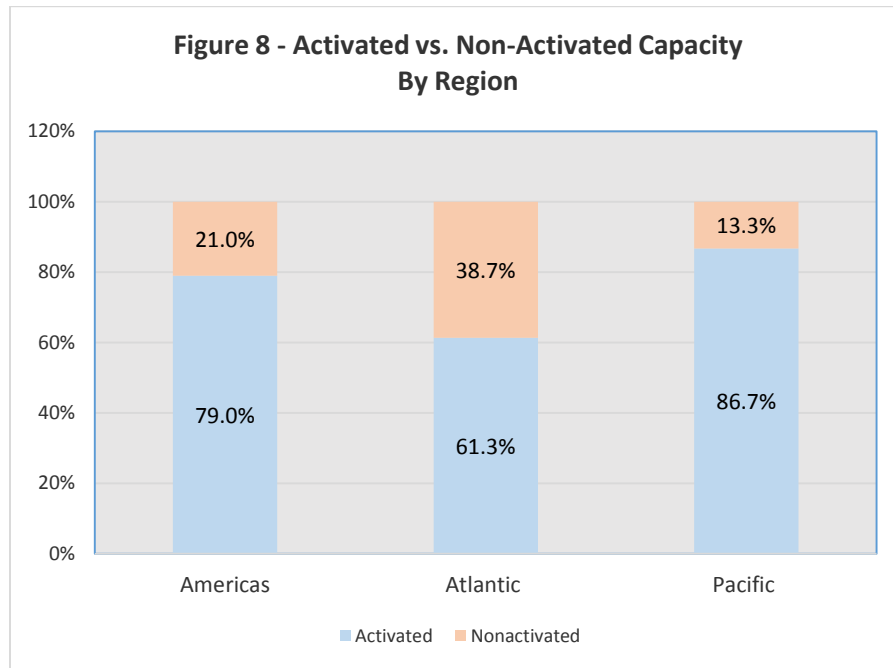
²⁸ These figures do not include any foreign-to-foreign cables from those countries. For instance, although only two U.S. international cables land in China, seven other cables also land in China, most of which are intra-Asia cables. TeleGeography, Submarine Cable Map, <http://www.submarinecablemap.com/#/country/china> (last visited Dec. 16, 2015).

²⁹ See *supra* n.6; Section 43.62 Filing Manual at 28-29, paras. 138-39.

³⁰ A few foreign carriers have not yet filed their information as of the publication of this Circuit Capacity Report.

Figure 8, derived from **Table 7**, shows the activated and the non-activated capacity data for the Americas, Atlantic, and Pacific regions.³¹

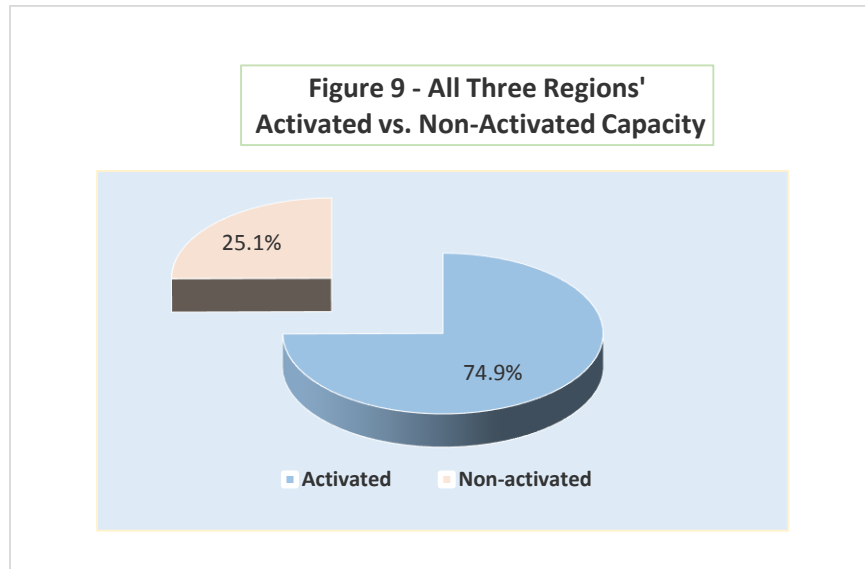
Non-activated capacity varies among regions. The Atlantic region has the largest non-activated capacity, which may correlate with the aggressive cable upgrade schedule in the region. The Pacific region, by contrast, has the lowest non-activated capacity at 13.3%, possibly demonstrating a need for new cable capacity.³²



³¹ See *infra* Table 7.

³² We note that there are a number of new U.S. international submarine cable applications for the Pacific region pending with the Commission. See IBFS File Nos. SCL-LIC-20150626-00015, SCL-LIC-20150626-00016, and SCL-LIC-20151104-00029.

Figure 9, derived from **Table 7**, shows that the cross-region combined average net capacity held was about 75% activated and 25% non-activated.³³

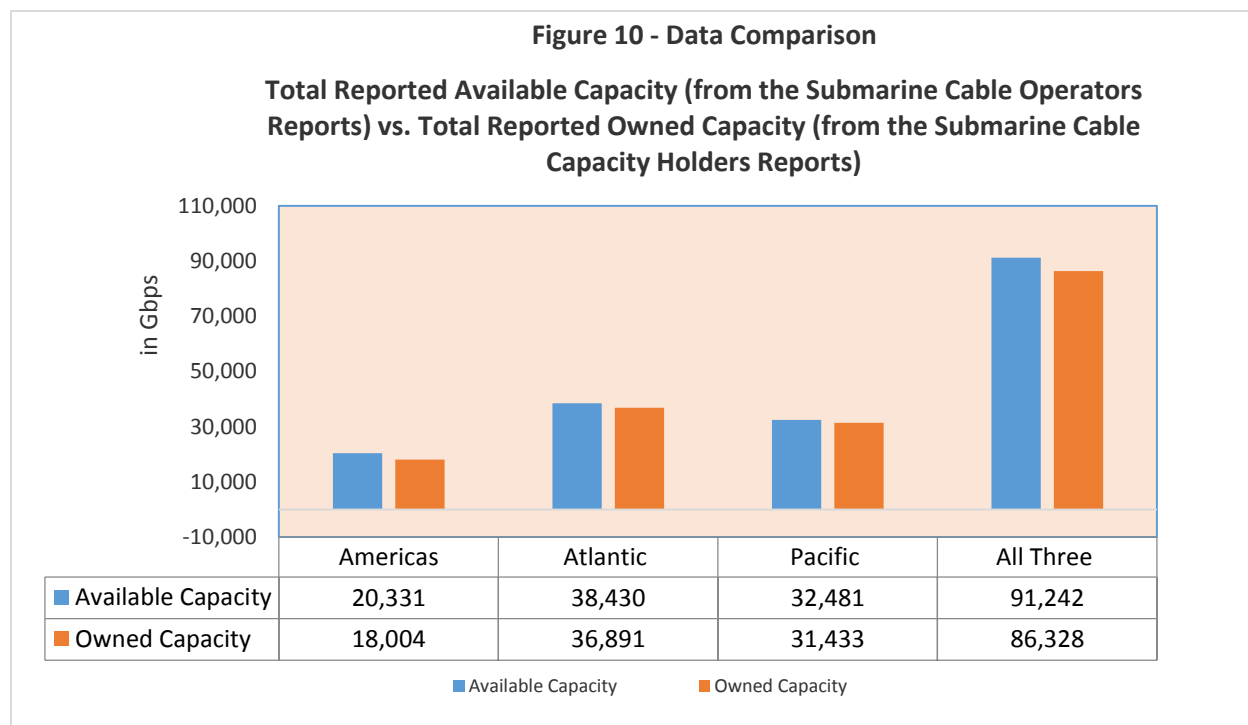


³³ See *infra* Table 7.

To assess the accuracy of reported data, we compared the total circuit capacity reported by submarine cable operators with the total circuit capacity reported by submarine cable capacity holders by region and world total.

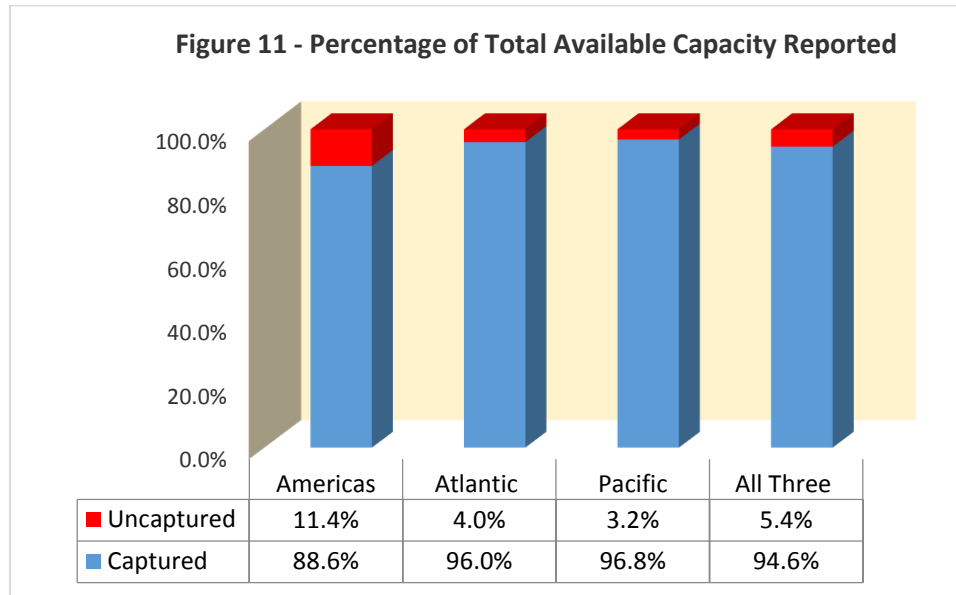
Ideally, available capacity reported by a submarine cable operator for a given cable should match the total of owned capacity reported by all submarine cable capacity holders on that cable. Thus the totals by region and world total should also match. However, there could be discrepancies between these figures because some amount of available capacity is owned by non-reporting entities, such as entities that hold capacity on a cable but are not U.S. carriers and are otherwise not required to operate as U.S. cable landing licensees.

Figure 10, derived from **Table 8**, shows that available capacity closely matches owned capacity by region and world total, although there are small discrepancies.³⁴



³⁴ See *infra* Table 7.

Figure 11, derived from **Table 8**, shows the percentage of total available submarine cable capacity reported for each region and in the aggregate.



There was more uncaptured capacity – the difference between the total reported available capacity (from the submarine cable operators reports) and the total reported owned capacity (from the submarine cable capacity holders reports) – in the Americas region than the other two regions. This is likely due to the larger number of small submarine cable owners that are not subject to our reporting requirements.³⁵ As the percentage is relatively small, the data in this Circuit Capacity Report provides useful information to the industry and to the Commission. It also improves on the data provided in earlier reports, as this Circuit Capacity Report accounts for more available capacity than previous reports – 94.6% versus 7.1%.

³⁵ See 47 CFR § 43.62.

Exhibit 1

Figures:

- Figure 1 - Terrestrial and Satellite World Totals
- Figure 2 - Submarine Cable Operators Reports – Total Available Capacity by Region
- Figure 3 - Number of Cables by Region
- Figure 4 - Technology Change – Cable Upgrades: Southern Cross Cable
- Figure 5 - Compound Annual Growth Rate 2007-2014 vs. 2014-2016
- Figure 6 - U.S. International Submarine Cable Foreign Landing Points Distribution
- Figure 7 - Top 8 Foreign Landing Points for U.S. International Submarine Cables
- Figure 8 - Activated vs. Non-Activated Capacity by Region
- Figure 9 - All Three Regions' Activated vs. Non-Activated Capacity
- Figure 10 - Data Comparison – Total Reported Available Capacity (from the Submarine Cable Operators Reports) vs. Total Reported Owned Capacity (from the Submarine Cable Capacity Holders Reports)
- Figure 11 – Percentage of Total Available Capacity Reported

Tables:

- Table 1 - lists the 84 U.S. international carriers that filed Circuit Capacity Reports, and identifies the type of report filed
- Table 2 - lists the 27 entities that filed a Terrestrial and Satellite Circuits Report
- Table 3 - lists the 30 lead operators that filed a Submarine Cable Operators Report
- Table 4 - lists the 68 entities that filed a Submarine Cable Capacity Holders Report
- Table 5 - lists the total reported terrestrial and satellite circuits (2014)
- Table 6 - lists the capacity information for 45 U.S. international submarine cables from year-end 2014 (actual) and year-end 2016 (planned)
- Table 6(A) - lists the capacity information for 45 U.S. international submarine cables from 2007-2016
- Table 7 - lists the regional summary of the Submarine Cable Capacity Holders Report, in STM-1 and Gbps units
- Table 8 - lists the Percentage of Available Submarine Cable Capacity Reported
- Attachment A - U.S. International Submarine Cables – Landing Points Sorted by Region, Cable, and Foreign Landing Point
- Attachment B - U.S. International Submarine Cables – Landing Points Sorted by Region, Foreign Landing Point, and Cable; and by Region and Foreign Landing Point

Table 1

Summary of U.S. International Carriers' 43.62 Circuit Capacity Filings

No.	Entities	Satellite Circuits Reports		Terrestrial Circuits Reports	Submarine Cable Operators Reports	Submarine Cable Capacity Holders Reports
		Common Carriers	Non-Common Carriers			
1	Allstream Fiber US, Inc.					✓
2	American Samoa Hawaii Cable, LLC				✓	✓
3	Antilles Crossing-St. Croix, Inc.				✓	✓
4	ARCOS-1 USA, Inc.				✓	✓
5	AT&T Corp.	✓		✓	✓	✓
6	Australia-Japan Cable (Guam) Limited				✓	✓
7	BCE Nexxia Voice Services Corporation			✓		
8	Bestel USA, Inc.			✓		
9	BT Americas Inc.					✓
10	Cable and Wireless Americas Systems Inc.				✓	✓
11	CABLEVISION LIGHTPATH INC			✓		
12	Cable & Wireless Network Services Limited				✓	✓
13	Caribbean Crossings Ltd.				✓	✓
14	CAT Telecom PCL					✓
15	Cedar Cable Ltd.				✓	✓
16	CenturyLink Communications, LLC			✓		✓
17	China Telecom (Americas) Corporation					✓
18	China Telecommunications Corporation					✓
19	China Unicom Americas Operations Ltd					✓
20	China United Network Communications Group Company Limited					✓
21	Chunghwa Telecom Co., Ltd.					✓
22	Chunghwa Telecom Global, Inc.			✓		✓
23	Claro Chile, S.A.					✓
24	Columbus Networks USA, Inc.				✓	✓
25	Dar Communications Corporation			✓		
26	Docomo Pacific, Inc.					✓
27	Emerald Networks Holdings Limited				✓	✓
28	France Telecom Long Distance USA, LLC					✓
29	Global Caribbean Network				✓	✓
30	Globenet Cabos Sumarinos America, Inc..				✓	✓
31	GTI Corporation					✓
32	GU Holdings Inc.				✓	✓
33	Hibernia Atlantic U.S. LLC				✓	✓
34	Inmarsat Mobile Networks, Inc.			✓		
35	Inmarsat Solutions (US) Inc.			✓		
36	Intelsat License LLC		✓			
37	IUSATEL USA, INC.			✓		
38	KDDI America, Inc.					✓
39	KT Corporation					✓
40	Latam Telecommunications, L.L.C.				✓	✓
41	Ledcor Industries (USA) Inc.				✓	
42	Level 3 Communications, LLC	✓		✓	✓	✓
43	Lighttower Fiber Networks II, LLC			✓		✓
44	Marine Cable Corporation					✓
45	New Century InfoComm Tech Co Ltd					✓
46	New Skies Satellites B.V.		✓			
47	NTT America, Inc.					✓
48	NTT Communications Corporation					✓

Table 1

Summary of U.S. International Carriers' 43.62 Circuit Capacity Filings

No.	Entities	Satellite Circuits Reports		Terrestrial Circuits Reports	Submarine Cable Operators Reports	Submarine Cable Capacity Holders Reports
		Common Carriers	Non-Common Carriers			
49	OPT Honotua Division (U.S.)				✓	✓
50	Orange Business Services U.S. Inc					✓
51	Pacific Carriage Ltd				✓	✓
52	PCCW Global, Inc.			✓		✓
53	PC Landing Corp.				✓	✓
54	Philippine Long Distance Telephone Company					✓
55	PLDT (US) Ltd.					✓
56	PPC 1 Limited				✓	✓
57	PTI Pacifica Inc.					✓
58	PT Telekomunikasi Indonesia International					✓
59	Puerto Rico Telephone Company, Inc.					✓
60	Reliance Communications, Inc.			✓		
61	Reliance Globalcom Limited				✓	✓
62	Rogers Communications Partnership					✓
63	SaskTel			✓		
64	Singapore Telecom USA, Inc.					✓
65	SMITCOMS, Inc.				✓	✓
66	Sprint Communications, Inc.	✓		✓	✓	✓
67	StarHub, Inc.					✓
68	TA Resources N.V.					✓
69	Tata Communications (America) Inc.			✓	✓	✓
70	Telecom Italia Sparkle of North America, Inc.					✓
71	Telefonica International Wholesale Services USA, Inc.				✓	✓
72	TeleGuam Holdings, LLC			✓		✓
73	Telekom Malaysia Bhd					✓
74	TeliaSonera International Carrier, Inc.					✓
75	Telmex USA, L.L.C.			✓		
76	Telstra Incorporated				✓	✓
77	TELUS Communications (U.S.) Inc.			✓		
78	Truestone, LLC				✓	✓
79	T-Systems North America, Inc.			✓		✓
80	Verizon Business Global LLC dba Verizon Business	✓		✓	✓	✓
81	VNPT					✓
82	Vodafone US Inc.			✓		
83	WaveDivision Holdings, LLC			✓		
84	Zayo Group, LLC			✓		✓
	Total Count	4	2	25	30	68

Table 2

Summary of U.S. International Carriers' 43.62 Circuit Capacity Filings

Terrestrial and Satellite Reports

No.	Entities	Satellite Circuits Reports		Terrestrial Circuits Reports
		Common Carriers	Non-Common Carriers	
1	AT&T Corp.	1		1
2	BCE Nexxia Voice Services Corporation			1
3	Bestel USA, Inc.			1
4	CABLEVISION LIGHTPATH INC			1
5	CenturyLink Communications, LLC			1
6	Chunghwa Telecom Global, Inc.			1
7	Dar Communications Corporation			1
8	Inmarsat Mobile Networks, Inc.			1
9	Inmarsat Solutions (US) Inc.			1
10	Intelsat License LLC		1	
11	IUSATEL USA, INC.			1
12	Level 3 Communications, LLC	1		1
13	Lighttower Fiber Networks II, LLC			1
14	New Skies Satellites B.V.		1	
15	PCCW Global, Inc.			1
16	Reliance Communications, Inc.			1
17	SaskTel			1
18	Sprint Communications, Inc.	1		1
19	Tata Communications (America) Inc.			1
20	TeleGuam Holdings, LLC			1
21	Telmex USA, L.L.C.			1
22	TELUS Communications (U.S.) Inc.			1
23	T-Systems North America, Inc.			1
24	Verizon Business Global LLC dba Verizon Business	1		1
25	Vodafone US Inc.			1
26	WaveDivision Holdings, LLC			1
27	Zayo Group, LLC			1
	Total Count	4	2	25

Table 3**Summary of U.S. International Carriers' 43.62 Circuit Capacity Filings****Submarine Cable Operators Reports**

No.	Entities	No. of Cable Reports
1	American Samoa Hawaii Cable, LLC	1
2	Antilles Crossing-St. Croix, Inc.	1
3	ARCOS-1 USA, Inc.	1
4	AT&T Corp.	10
5	Australia-Japan Cable (Guam) Limited	1
6	Cable & Wireless Network Services Limited	1
7	Cable and Wireless Americas Systems Inc.	1
8	Caribbean Crossings Ltd.	1
9	Cedar Cable Ltd.	1
10	Columbus Networks USA, Inc.D45	1
11	Emerald Networks Holdings Limited	1
12	Global Caribbean Network	1
13	Globenet Cabos Sumarinos America, Inc..	1
14	GU Holdings Inc.	1
15	Hibernia Atlantic U.S. LLC	1
16	Latam Telecommunications, L.L.C.	1
17	Ledcor Industries (USA) Inc.	1
18	Level 3 Communications, LLC	4
19	OPT Honotua Division (U.S.)	1
20	Pacific Carriage Ltd	1
21	PC Landing Corp.	1
22	PPC 1 Limited	1
23	Reliance Globalcom Limited	1
24	SMITCOMS, Inc.	1
25	Sprint Communications, Inc.	2
26	Tata Communications (America) Inc.	2
27	Telefonica International Wholesale Services USA, Inc.	2
28	Telstra Incorporated	1
29	Truestone, LLC	1
30	Verizon Business Global LLC dba Verizon Business	1
	Total cables	45

Table 4

**Summary of U.S. International Carriers' 43.62 Circuit Capacity Filings
Submarine Cable Capacity Holders Reports**

		Capacity Holders
No.	Entities	Filing
1	Allstream Fiber US, Inc.	1
2	American Samoa Hawaii Cable, LLC	1
3	Antilles Crossing-St. Croix, Inc.	1
4	ARCOS-1 USA, Inc.	1
5	AT&T Corp.	1
6	Australia-Japan Cable (Guam) Limited	1
7	BT Americas Inc.	1
8	Cable and Wireless Americas Systems Inc.	1
9	Cable & Wireless Network Services Limited	1
10	Caribbean Crossings Ltd.	1
11	CAT Telecom PCL	1
12	Cedar Cable Ltd.	1
13	CenturyLink Communications, LLC	1
14	China Telecom (Americas) Corporation	1
15	China Telecommunications Corporation	1
16	China Unicom Americas Operations Ltd	1
17	China United Network Communications Group Company Limited	1
18	Chunghwa Telecom Co., Ltd.	1
19	Chunghwa Telecom Global, Inc.	1
20	Claro Chile, S.A.	1
21	Columbus Networks USA, Inc.	1
22	Docomo Pacific, Inc.	1
23	Emerald Networks Holdings Limited	1
24	France Telecom Long Distance USA, LLC	1
25	Global Caribbean Network	1
26	Globenet Cabos Sumarinos America, Inc..	1
27	GTI Corporation	1
28	GU Holdings Inc.	1
29	Hibernia Atlantic U.S. LLC	1
30	KDDI America, Inc.	1
31	KT Corporation	1
32	Latam Telecommunications, L.L.C.	1
33	Level 3 Communications, LLC	1
34	Lighttower Fiber Networks II, LLC	1
35	Marine Cable Corporation	1
36	New Century InfoComm Tech Co Ltd	1
37	NTT America, Inc.	1
38	NTT Communications Corporation	1
39	OPT Honotua Division (U.S.)	1
40	Orange Business Services U.S. Inc	1
41	Pacific Carriage Ltd	1
42	PCCW Global, Inc.	1
43	PC Landing Corp.	1
44	Philippine Long Distance Telephone Company	1
45	PLDT (US) Ltd.	1
46	PPC 1 Limited	1
47	PTI Pacifica Inc.	1
48	PT Telekomunikasi Indonesia International	1
49	Puerto Rico Telephone Company, Inc.	1

Table 4

Summary of U.S. International Carriers' 43.62 Circuit Capacity Filings Submarine Cable Capacity Holders Reports

		Capacity Holders
No.	Entities	Filing
50	Reliance Globalcom Limited	1
51	Rogers Communications Partnership	1
52	Singapore Telecom USA, Inc.	1
53	SMITCOMS, Inc.	1
54	Sprint Communications, Inc.	1
55	StarHub, Inc.	1
56	TA Resources N.V.	1
57	Tata Communications (America) Inc.	1
58	Telecom Italia Sparkle of North America, Inc.	1
59	Telefonica International Wholesale Services USA, Inc.	1
60	TeleGuam Holdings, LLC	1
61	Telekom Malaysia Bhd	1
62	TeliaSonera International Carrier, Inc.	1
63	Telstra Incorporated	1
64	Truestone, LLC	1
65	T-Systems North America, Inc.	1
66	Verizon Business Global LLC dba Verizon Business	1
67	VNPT	1
68	Zayo Group, LLC	1
	Total Count	68

Table 5
Total Reported Terrestrial and Satellite Circuits - 2014
(in 64 kbps Circuits)

Transmission	World Total Circuits
Satellite	81,157
Terrestrial	21,830,546
Total Circuits:	21,911,703

Table 6
Submarine Cable Operators Reports - in Gbps

Count	Cable System	Available Capacity as of 12/31/2014	Planned Capacity as of 12/31/2016
	Americas Region		
1	America Movil Submarine Cable System (AMX1)	1,640	5,080
2	AmeriCan-1	1,163	1,196
3	Americas II	850	990
4	Antillas 1	90	90
5	Antilles Crossing	80	160
6	ARCOS-1	1,468	1,768
7	BAHAMAS II	60	60
8	Bahamas Internet Cable Network (BICS)	60	80
9	CB-1	20	20
10	CFX-1 Cable System	1,580	1,780
11	Gemini Bermuda System	160	380
12	Global Caribbean Network (GCN)	60	90
13	GlobeNet	2,400	4,600
14	Maya-1	980	1,020
15	PAC	800	1,352
16	Pacific Caribbean Cable System (PCCS)	N/A	1,900
17	Pan American Cable System	140	400
18	SAC	4,260	7,199
19	SAm-1	4,400	5,000
20	SMPR-1	10	10
21	Taino-Carb	110	110
	Total Americas Region:	20,331	33,285
	Atlantic Region		
1	Apollo Cable	6,100	9,610
2	Atlantic Crossing (AC-1)	2,350	3,289
3	Columbus III	160	160
4	Emerald Express Cable System	N/A	40
5	FLAG Atlantic-1	4,430	6,130
6	Hibernia Atlantic	14,400	38,100
7	Level 3 (Yellow Cable System/AC-2)	4,420	6,233
8	TAT-14	3,150	3,150
9	TGN-Atlantic	3,420	3,780
	Total Atlantic Region:	38,430	70,492

Table 6
Submarine Cable Operators Reports - in Gbps

Count	Cable System	Available Capacity as of 12/31/2014	Planned Capacity as of 12/31/2016
	Pacific Region		
1	American Samoa Hawaii Cable	1	1
2	Asia America Gateway (AAG)	2,180	3,940
3	Australia-Japan Cable (Guam)	1,760	3,560
4	China-U.S. Cable Network	160	160
5	GOKI	N/A	200
6	HANTRU1*	40	40
7	Honotua Cable System	20	40
8	Japan-U.S. Cable Network	5,380	6,980
9	PC-1*	2,900	2,900
10	PPC 1	700	1,200
11	Southern Cross	3,500	5,700
12	Telstra Endeavour*	900	900
13	TGN-Pacific	5,520	5,655
14	Trans-Pacific Express Cable System (TPE)	2,200	6,360
15	Unity Cable System	7,220	9,700
	Total Pacific Region:	32,481	47,336
	Total For All Regions:	91,242	151,113
	Summary - 2014		
20	Total Americas Region:	20,331	33,285
8	Total Atlantic Region:	38,430	70,492
14	Total Pacific Region:	32,481	47,336
	Total	91,242	151,113
	in %		
	Summary - 2014		
	Total Americas Region:	22.3%	22.0%
	Total Atlantic Region:	42.1%	46.6%
	Total Pacific Region:	35.6%	31.3%
	Total	100.0%	100.0%
<p>* Figures derived from Table 7-A of the 2013 Section 43.82 Circuit Status Report. Requests for confidential treatment of Submarine Cable Operators Reports pending.</p>			

**TABLE 6(A) - U.S. International Submarine Cable Capacity
(in Gbps)**

CABLES	Data Extracted from 2013 43.82 Report *										43.62 Filing	
	2007	2008	2009	2010	2011	2012	2013	2014 Est	2015 Est.	2016 Est.	Available 2014	Planned 2,016
TRANS - Atlantic (T-A) -												
Operational as of 12/31/2014 :												
Atlantic Crossing (AC-1)	635	815	1,165	1,455	1,500	1,760	2,100	2,350	2,860	3,289	2,350	3,289
Columbus III	40	40	160	160	160	160	160	160	160	160	160	160
Yellow Cable System **	320	500	900	1,780	1,780	1,860	1,750	2,210	2,710	3,117	2,210	3,117
AC-2 **	400	400	400	400	1,130	1,250	1,750	2,210	2,710	3,117	2,210	3,117
TAT-14	1,280	1,280	1,870	1,870	1,870	2,250	2,990	3,190	3,190	3,190	3,150	3,150
FLAG Atlantic - 1	1,240	1,480	1,640	2,200	2,280	2,830	3,560	4,460	5,160	6,160	4,430	6,130
Hibernia Atlantic 1	360	360	360	360	2,000	2,750	3,750	4,401	5,200	5,200	14,400	38,100
TGN- Atlantic	460	1,040	1,460	1,560	1,770	2,810	3,010	3,420	3,780	4,480	3,420	3,780
Apollo Cable	1,280	2,280	2,860	3,100	3,150	3,420	3,510	6,100	8,910	9,610	6,100	9,610
Planned as of 4/2015												
Emerald Express Cable System										40,000	N/A	40
AMERICAS -												
Operational as of 12/31/2014:												
Taino-Carib	1.9	1.9	1.9	70	70	70	110	110	110	110	110	110
Antillas 1	5.0	5.0	10.0	20	20	60	60	60	60	60	90	90
BAHAMAS II	2.5	2.5	2.5	2.5	2.5	60	60	60	60	60	60	60
Pan American Cable System	5.0	5.0	5.0	140	140	140	140	140.0	140.0	400.0	140	400
AmeriCan-1	159.3	159.3	159.3	159.3	159.3	159	159	159.3	159.3	159.3	1,163	1,196
Americas II	80.0	80.0	80.0	520.0	780.0	820	850	850.0	920.0	990.0	850	990
PAC	50.0	65.0	95.0	150.0	310.0	460	790	1,060	1,460	1,898	800	1,352
MAYA -1	65.0	145.0	145.0	145.0	145.0	145	145	1,020	1,020	1,020	980	1,020
GlobeNet	80.0	140.0	720.0	720.0	2,080.0	2,080	2,400	2,400	3,600	4,600	2,400	4,600
SAC	200.0	200.0	320.0	530.0	620.0	935	1,600	2,500	3,400	4,420	4,260	7,199
ARCOS-1	80.0	120.0	210.0	240.0	290.0	350	450	550	600	600	1,468	1,768
SAm-1	160.0	440.0	960.0	1,300.0	1,700.0	2,100	2,700	4,000	4,400	5,000	4,400	5,000
Bahamas Internet Cable Network (BICS)	12.5	12.5	12.5	22.5	22.5	20	40	50	50	50	60	80
SMPR-1	2.5	2.5	2.5	2.5	2.6	3	3	3	3	3	10	10
Global Caribbean Network (GCN)	20.0	20.0	20.0	20.0	40.0	40	40	40	40	40	60	90
Antilles Crossing	30.0	20.0	20.0	20.0	30.0	30	40	40	40	40	80	160
CFX-1 Cable System	0.0	100.0	110.0	500.0	560.0	610	1,040	1,200	1,300	1,300	1,580	1,780
Gemini Bermuda System	0.0	40.0	40.0	70.0	80.0	80	140	140	180	180	160	380
CB-1	0.0	20.0	20.0	20.0	20.0	20	20	20	20	20	20	20
America Movil Submarine Cable System (AMX-1)								40	40	40	1,640	5,080
Planned as of 4/2015												
Pacific-Caribbean Cable System (PCCS)									400	400	N/A	1,900
TRANS - PACIFIC (T-P) -												
Operational as of 12/31/2014 :												
PC-1 ***	360	960	1,030	1,430	1,800	1,800	2,900	2,900	2,900	2,900	2,900	2,900
China-U.S. Cable Network	160	160	160	160	160	160	160	160	160	160	160	160
Southern Cross	480	860	860	1,240	1,240	1,640	2,700	3,600	3,600	3,600	3,500	5,700
Japan-U.S. Cable Network	800	1,900	2,180	2,300	2,500	2,530	4,630	5,380	6,180	6,980	5,380	6,980
Australia-Japan Cable (Guam)	160	520	520	520	640	1,200	1,480	1,760	1,760	1,760	1,760	3,560
TGN - Pacific	1,880	2,760	3,140	3,140	3,140	3,660	4,350	5,050	5,655	6,350	5,520	5,655
Trans-Pacific Express Cable System (TPE)	0	1,280	1,280	1,870	1,870	2,040	2,200	2,200	4,830	6,360	2,200	6,360
Telestra Endeavour ***	0	80	80	160	300	300	600	900	900	900	900	900
Asia America Gateway Consortium (AAG)	0	0	540	540	580	1,540	1,540	2,180	3,540	3,940	2,180	3,940
PPC 1	0	0	140	140	140	140	140	140	140	140	700	1,200
American Samoa Hawaii Cable	0	0	1	1	1	1	1	1	1	1	1	1
HANTRU1 ***	0	0	0	40	40	40	40	40	40	40	40	40
Unity Cable System	0	0	0	2,380	2,380	2,700	4,020	4,420	4,420	4,420	7,220	9,700
Honotua	0	0	0	20	20	20	20	20	20	20	20	40
Planned as of 4/2015												
GOKI									200	200	N/A	200
Regional Total Capacity:												
Trans-Atlantic	6,015	8,195	10,815	12,885	15,640	19,090	22,580	28,501	34,680	78,322	38,430	70,492
Americas	954	1,579	2,934	4,652	7,072	8,182	10,787	14,442	18,002	21,390	20,331	33,285
Trans-Pacific	3,840	8,520	9,931	13,941	14,811	17,771	24,781	28,751	34,346	37,771	32,481	47,336
All Three Regions	10,809	18,294	23,680	31,478	37,523	45,043	58,148	71,694	87,028	137,483	91,242	151,113
Number of Cables:												
Trans-Atlantic	8	8	8	8	8	8	8	8	8	9		
Americas	16	19	19	19	19	19	19	20	21	21		
Trans-Pacific	6	8	11	14	14	14	14	14	15	15		
All Three Regions	30	35	38	41	41	41	41	42	44	45		

**TABLE 6(A) - U.S. International Submarine Cable Capacity
(in Gbps)**

CABLES	Data Extracted from 2013 43.82 Report *										43.62 Filing	
	2007	2008	2009	2010	2011	2012	2013	2014 Est	2015 Est.	2016 Est.	Available 2014	Planned 2,016
Growth Rate:												
Trans-Atlantic		36.2%	32.0%	19.1%	21.4%	22.1%	18.3%	26.2%	21.7%	125.8%		
Americas		65.5%	85.8%	58.6%	52.0%	15.7%	31.8%	33.9%	24.6%	18.8%		
Trans-Pacific		121.9%	16.6%	40.4%	6.2%	20.0%	39.4%	16.0%	19.5%	10.0%		
All Three Regions		69.3%	29.4%	32.9%	19.2%	20.0%	29.1%	23.3%	21.4%	58.0%		
Compounded Growth Calculation Steps:												
Trans-Atlantic	8.7020										10.5566	11.1633
Americas	6.8603										9.9199	10.4129
Trans-Pacific	8.2532										10.3884	10.7650
All Three Regions	9.2881										11.4213	11.9258
Actual Growth Rate (2007-2014)												
Trans-Atlantic	30.34%											
Americas	54.82%											
Trans-Pacific	35.67%											
All Three Regions	35.63%											
Forecast Growth Rate (2014-2016)												
Trans-Atlantic	35.44%											
Americas	27.95%											
Trans-Pacific	20.72%											
All Three Regions	28.69%											

* Cables that are no longer operational as of the date of this Report are not included in this table.

** Yellow Cable System and AC-2 are components of the same cable system owned by Level 3.

*** Figures derived from Table 7-A of the 2013 Section 43.82 Circuit Status Report. Requests for confidential treatment of Submarine Cable Operator Reports pending.

Table 7
Submarine Cable Capacity Holders Reports - 2014

Submarine Cable Capacity Holders In STM-1 Units						
Cable Region	Owned Capacity (a)	Net IRUs (b)	Net Inter-Carrier Leaseholds (c)	Net Capacity Held (d)=(a)+(b)+(c) =(e)+(f)	Activated Capacity (e)	Nonactivated Capacity (f)
Americas Region	115,225	-12,778	-25,644	76,803	60,679	16,124
Atlantic Region	236,100	-5,677	-27,188	203,235	124,569	78,666
Pacific Region	201,173	630	4,911	206,715	179,249	27,465
All Three Regions	552,498	-17,824	-47,920	486,753	364,498	122,256
Submarine Cable Capacity Holders In Gbps Units						
Conversion Ratio: 1 Gbps = 6.4 STM-1s						
Cable Region	Owned Capacity	Net Capacity Held	Activated	Non-activated	Activated %	Non-activated %
Americas	18,004	12,001	9,481	2,519	79.0%	21.0%
Atlantic	36,891	31,756	19,464	12,292	61.3%	38.7%
Pacific	31,433	32,299	28,008	4,291	86.7%	13.3%
All Three	86,328	76,055	56,953	19,102	74.9%	25.1%

**Table 8
Percentage of Total Available Capacity Reported**

	Submarine Cable Operators Report (Gbps)	Submarine Cable Capacity Holders Report (Gbps)			
Cable Region	Available Capacity	Owned Capacity	Discrepancy	Captured	Uncaptured
Americas	20,331	18,004	2,327	88.6%	11.4%
Atlantic	38,430	36,891	1,539	96.0%	4.0%
Pacific	32,481	31,433	1,048	96.8%	3.2%
All Three	91,242	86,328	4,914	94.6%	5.4%

Attachment A
U.S. International Submarine Cables - Landing Points
Sorted by Region, Cable, and Foreign Landing Point

No.	Cable Region	Cable Name	Foreign Landing Point
1	Americas Region	America Movil Submarine Cable System (AMX1)	Brazil
2	Americas Region	America Movil Submarine Cable System (AMX1)	Colombia
3	Americas Region	America Movil Submarine Cable System (AMX1)	Dominican Republic
4	Americas Region	America Movil Submarine Cable System (AMX1)	Guatemala
5	Americas Region	America Movil Submarine Cable System (AMX1)	Mexico
6	Americas Region	AmeriCan-1	Canada
7	Americas Region	Americas II	Brazil
8	Americas Region	Americas II	Curacao
9	Americas Region	Americas II	French Guiana
10	Americas Region	Americas II	Martinique
11	Americas Region	Americas II	Trinidad
12	Americas Region	Americas II	Venezuela
13	Americas Region	Antillas 1	Dominican Republic
14	Americas Region	Antilles Crossing	Barbados
15	Americas Region	Antilles Crossing	Saint Lucia
16	Americas Region	ARCOS-1	Bahamas
17	Americas Region	ARCOS-1	Belize
18	Americas Region	ARCOS-1	Colombia
19	Americas Region	ARCOS-1	Costa Rica
20	Americas Region	ARCOS-1	Curacao
21	Americas Region	ARCOS-1	Dominican Republic
22	Americas Region	ARCOS-1	Guatemala
23	Americas Region	ARCOS-1	Honduras
24	Americas Region	ARCOS-1	Mexico
25	Americas Region	ARCOS-1	Nicaragua
26	Americas Region	ARCOS-1	Panama
27	Americas Region	ARCOS-1	Turks and Caicos Islands
28	Americas Region	ARCOS-1	Venezuela
29	Americas Region	BAHAMAS II	Bahamas
30	Americas Region	Bahamas Internet Cable Network (BICS)	Bahamas
31	Americas Region	CB-1	Bermuda
32	Americas Region	CFX-1 Cable System	Colombia
33	Americas Region	CFX-1 Cable System	Jamaica
34	Americas Region	Gemini Bermuda System	Bermuda
35	Americas Region	Global Caribbean Network (GCN)	Guadeloupe
36	Americas Region	Global Caribbean Network (GCN)	Saint Barthelemy
37	Americas Region	Global Caribbean Network (GCN)	Saint Martin
38	Americas Region	GlobeNet	Bermuda
39	Americas Region	GlobeNet	Brazil
40	Americas Region	GlobeNet	Colombia
41	Americas Region	GlobeNet	Venezuela
42	Americas Region	Maya-1	Cayman Islands
43	Americas Region	Maya-1	Colombia
44	Americas Region	Maya-1	Costa Rica
45	Americas Region	Maya-1	Honduras
46	Americas Region	Maya-1	Mexico
47	Americas Region	Maya-1	Panama
48	Americas Region	PAC	Costa Rica
49	Americas Region	PAC	Mexico
50	Americas Region	PAC	Panama
51	Americas Region	PAC	Venezuela
52	Americas Region	Pan American Cable System	Aruba
53	Americas Region	Pan American Cable System	Chile
54	Americas Region	Pan American Cable System	Colombia
55	Americas Region	Pan American Cable System	Ecuador
56	Americas Region	Pan American Cable System	Panama
57	Americas Region	Pan American Cable System	Peru
58	Americas Region	Pan American Cable System	Venezuela
59	Americas Region	SAC	Argentina

Attachment A
U.S. International Submarine Cables - Landing Points
Sorted by Region, Cable, and Foreign Landing Point

No.	Cable Region	Cable Name	Foreign Landing Point
60	Americas Region	SAC	Brazil
61	Americas Region	SAC	Chile
62	Americas Region	SAC	Colombia
63	Americas Region	SAC	Panama
64	Americas Region	SAC	Peru
65	Americas Region	SAm-1	Argentina
66	Americas Region	SAm-1	Brazil
67	Americas Region	SAm-1	Chile
68	Americas Region	SAm-1	Colombia
69	Americas Region	SAm-1	Ecuador
70	Americas Region	SAm-1	Guatemala
71	Americas Region	SAm-1	Peru
72	Americas Region	SMPR-1	Netherlands Antilles
73	Americas Region	SMPR-1	Sint Maarten
74	Americas Region	Taino-Carb	Virgin Islands, British.
1	Atlantic Region	Apollo Cable	France
2	Atlantic Region	Apollo Cable	United Kingdom
3	Atlantic Region	Atlantic Crossing (AC-1)	Germany
4	Atlantic Region	Atlantic Crossing (AC-1)	United Kingdom
5	Atlantic Region	Columbus III	Italy
6	Atlantic Region	Columbus III	Portugal
7	Atlantic Region	Columbus III	Spain
8	Atlantic Region	FLAG Atlantic-1	France
9	Atlantic Region	FLAG Atlantic-1	United Kingdom
10	Atlantic Region	Hibernia Atlantic	Canada
11	Atlantic Region	Hibernia Atlantic	Ireland
12	Atlantic Region	Hibernia Atlantic	United Kingdom
13	Atlantic Region	Level 3	United Kingdom
14	Atlantic Region	TAT-14	Denmark
15	Atlantic Region	TAT-14	France
16	Atlantic Region	TAT-14	Germany
17	Atlantic Region	TAT-14	Netherlands
18	Atlantic Region	TAT-14	United Kingdom
19	Atlantic Region	TGN-Atlantic	United Kingdom
1	Pacific Region	American Samoa Hawaii Cable	American Samoa
2	Pacific Region	American Samoa Hawaii Cable	Samoa
3	Pacific Region	Asia America Gateway (AAG)	Brunei
4	Pacific Region	Asia America Gateway (AAG)	Hong Kong
5	Pacific Region	Asia America Gateway (AAG)	Malaysia
6	Pacific Region	Asia America Gateway (AAG)	Philippines
7	Pacific Region	Asia America Gateway (AAG)	Singapore
8	Pacific Region	Asia America Gateway (AAG)	Thailand
9	Pacific Region	Asia America Gateway (AAG)	Vietnam
10	Pacific Region	Australia-Japan Cable (Guam)	Australia
11	Pacific Region	Australia-Japan Cable (Guam)	Japan
12	Pacific Region	China-U.S. Cable Network	China
13	Pacific Region	China-U.S. Cable Network	Japan
14	Pacific Region	China-U.S. Cable Network	Korea, South
15	Pacific Region	China-U.S. Cable Network	Taiwan
16	Pacific Region	Honotua Cable System	French Polynesia
17	Pacific Region	Japan-U.S. Cable Network	Japan
18	Pacific Region	PC-1	Japan
19	Pacific Region	PPC 1	Australia
20	Pacific Region	PPC 1	Papua New Guinea
21	Pacific Region	Southern Cross	Australia
22	Pacific Region	Southern Cross	Fiji
23	Pacific Region	Southern Cross	New Zealand

Attachment A
U.S. International Submarine Cables - Landing Points
Sorted by Region, Cable, and Foreign Landing Point

No.	Cable Region	Cable Name	Foreign Landing Point
24	Pacific Region	Telstra Endeavor	Australia
25	Pacific Region	TGN-Pacific	Japan
26	Pacific Region	Trans-Pacific Express Cable System (TPE)	China
27	Pacific Region	Trans-Pacific Express Cable System (TPE)	Japan
28	Pacific Region	Trans-Pacific Express Cable System (TPE)	Korea, South
29	Pacific Region	Trans-Pacific Express Cable System (TPE)	Taiwan
30	Pacific Region	Unity Cable System	Japan
123	All Three Region Landing		
	Points		
Source: 2013 Section 43.82 Circuit Status Data. Table 7-B, at 35-36.			

Attachment B
U.S. International Submarine Cables - Landing Points
Sorted by Region, Foreign Landing Point, and Cable

No.	Cable Region	Cable Name	Foreign Landing Point
1	Americas Region	SAC	Argentina
2	Americas Region	SAm-1	Argentina
3	Americas Region	Pan American Cable System	Aruba
4	Americas Region	ARCOS-1	Bahamas
5	Americas Region	BAHAMAS II	Bahamas
6	Americas Region	Bahamas Internet Cable Network (BICS)	Bahamas
7	Americas Region	Antilles Crossing	Barbados
8	Americas Region	ARCOS-1	Belize
9	Americas Region	CB-1	Bermuda
10	Americas Region	Gemini Bermuda System	Bermuda
11	Americas Region	GlobeNet	Bermuda
12	Americas Region	America Movil Submarine Cable System (AMX1)	Brazil
13	Americas Region	Americas II	Brazil
14	Americas Region	GlobeNet	Brazil
15	Americas Region	SAC	Brazil
16	Americas Region	SAm-1	Brazil
17	Americas Region	AmeriCan-1	Canada
18	Americas Region	Maya-1	Cayman Islands
19	Americas Region	Pan American Cable System	Chile
20	Americas Region	SAC	Chile
21	Americas Region	SAm-1	Chile
22	Americas Region	America Movil Submarine Cable System (AMX1)	Colombia
23	Americas Region	ARCOS-1	Colombia
24	Americas Region	CFX-1 Cable System	Colombia
25	Americas Region	GlobeNet	Colombia
26	Americas Region	Maya-1	Colombia
27	Americas Region	Pan American Cable System	Colombia
28	Americas Region	SAC	Colombia
29	Americas Region	SAm-1	Colombia
30	Americas Region	ARCOS-1	Costa Rica
31	Americas Region	Maya-1	Costa Rica
32	Americas Region	PAC	Costa Rica
33	Americas Region	Americas II	Curacao
34	Americas Region	ARCOS-1	Curacao
35	Americas Region	America Movil Submarine Cable System (AMX1)	Dominican Republic
36	Americas Region	Antillas 1	Dominican Republic
37	Americas Region	ARCOS-1	Dominican Republic
38	Americas Region	Pan American Cable System	Ecuador
39	Americas Region	SAm-1	Ecuador
40	Americas Region	Americas II	French Guiana
41	Americas Region	Global Caribbean Network (GCN)	Guadeloupe
42	Americas Region	America Movil Submarine Cable System (AMX1)	Guatemala
43	Americas Region	ARCOS-1	Guatemala
44	Americas Region	SAm-1	Guatemala
45	Americas Region	ARCOS-1	Honduras
46	Americas Region	Maya-1	Honduras
47	Americas Region	CFX-1 Cable System	Jamaica
48	Americas Region	Americas II	Martinique
49	Americas Region	America Movil Submarine Cable System (AMX1)	Mexico
50	Americas Region	ARCOS-1	Mexico
51	Americas Region	Maya-1	Mexico
52	Americas Region	PAC	Mexico
53	Americas Region	SMPR-1	Netherlands Antilles
54	Americas Region	ARCOS-1	Nicaragua
55	Americas Region	ARCOS-1	Panama

Attachment B
U.S. International Submarine Cables - Landing Points
Sorted by Region, Foreign Landing Point, and Cable

No.	Cable Region	Cable Name	Foreign Landing Point
56	Americas Region	Maya-1	Panama
57	Americas Region	PAC	Panama
58	Americas Region	Pan American Cable System	Panama
59	Americas Region	SAC	Panama
60	Americas Region	Pan American Cable System	Peru
61	Americas Region	SAC	Peru
62	Americas Region	SAm-1	Peru
63	Americas Region	Global Caribbean Network (GCN)	Saint Barthelemy
64	Americas Region	Antilles Crossing	Saint Lucia
65	Americas Region	Global Caribbean Network (GCN)	Saint Martin
66	Americas Region	SMPR-1	Sint Maarten
67	Americas Region	Americas II	Trinidad
68	Americas Region	ARCOS-1	Turks and Caicos Islands
69	Americas Region	Americas II	Venezuela
70	Americas Region	ARCOS-1	Venezuela
71	Americas Region	GlobeNet	Venezuela
72	Americas Region	PAC	Venezuela
73	Americas Region	Pan American Cable System	Venezuela
74	Americas Region	Taino-Carb	Virgin Islands, British.
1	Atlantic Region	Hibernia Atlantic	Canada
2	Atlantic Region	TAT-14	Denmark
3	Atlantic Region	Apollo Cable	France
4	Atlantic Region	FLAG Atlantic-1	France
5	Atlantic Region	TAT-14	France
6	Atlantic Region	Atlantic Crossing (AC-1)	Germany
7	Atlantic Region	TAT-14	Germany
8	Atlantic Region	Hibernia Atlantic	Ireland
9	Atlantic Region	Columbus III	Italy
10	Atlantic Region	TAT-14	Netherlands
11	Atlantic Region	Columbus III	Portugal
12	Atlantic Region	Columbus III	Spain
13	Atlantic Region	Apollo Cable	United Kingdom
14	Atlantic Region	Atlantic Crossing (AC-1)	United Kingdom
15	Atlantic Region	FLAG Atlantic-1	United Kingdom
16	Atlantic Region	Hibernia Atlantic	United Kingdom
17	Atlantic Region	Level 3	United Kingdom
18	Atlantic Region	TAT-14	United Kingdom
19	Atlantic Region	TGN-Atlantic	United Kingdom
1	Pacific Region	American Samoa Hawaii Cable	American Samoa
2	Pacific Region	Australia-Japan Cable (Guam)	Australia
3	Pacific Region	PPC 1	Australia
4	Pacific Region	Southern Cross	Australia
5	Pacific Region	Telstra Endeavor	Australia
6	Pacific Region	Asia America Gateway (AAG)	Brunei
7	Pacific Region	China-U.S. Cable Network	China
8	Pacific Region	Trans-Pacific Express Cable System (TPE)	China
9	Pacific Region	Southern Cross	Fiji
10	Pacific Region	Honotua Cable System	French Polynesia
11	Pacific Region	Asia America Gateway (AAG)	Hong Kong
12	Pacific Region	Australia-Japan Cable (Guam)	Japan
13	Pacific Region	China-U.S. Cable Network	Japan
14	Pacific Region	Japan-U.S. Cable Network	Japan
15	Pacific Region	PC-1	Japan

Attachment B
U.S. International Submarine Cables - Landing Points
Sorted by Region, Foreign Landing Point, and Cable

No.	Cable Region	Cable Name	Foreign Landing Point
16	Pacific Region	TGN-Pacific	Japan
17	Pacific Region	Trans-Pacific Express Cable System (TPE)	Japan
18	Pacific Region	Unity Cable System	Japan
19	Pacific Region	China-U.S. Cable Network	Korea, South
20	Pacific Region	Trans-Pacific Express Cable System (TPE)	Korea, South
21	Pacific Region	Asia America Gateway (AAG)	Malaysia
22	Pacific Region	Southern Cross	New Zealand
23	Pacific Region	PPC 1	Papua New Guinea
24	Pacific Region	Asia America Gateway (AAG)	Philippines
25	Pacific Region	American Samoa Hawaii Cable	Samoa
26	Pacific Region	Asia America Gateway (AAG)	Singapore
27	Pacific Region	China-U.S. Cable Network	Taiwan
28	Pacific Region	Trans-Pacific Express Cable System (TPE)	Taiwan
29	Pacific Region	Asia America Gateway (AAG)	Thailand
30	Pacific Region	Asia America Gateway (AAG)	Vietnam
123	All Three Region Landing Points		
Source: 2013 Section 43.82 Circuit Status Data. Table 7-B, at 35-36.			

Attachment B
U.S. International Submarine Cables - Landing Points
Summary of Landing Points by Region and Foreign Landing Point

		Cable Region	No. of Cable Passed (NCP)	Landing Point
1		Americas Region	8	Colombia
1		Americas Region	5	Brazil
2		Americas Region	5	Panama
3		Americas Region	5	Venezuela
1		Americas Region	4	Mexico
1		Americas Region	3	Bahamas
2		Americas Region	3	Bermuda
3		Americas Region	3	Chile
4		Americas Region	3	Costa Rica
5		Americas Region	3	Dominican Republic
6		Americas Region	3	Guatemala
7		Americas Region	3	Peru
1		Americas Region	2	Argentina
2		Americas Region	2	Curacao
3		Americas Region	2	Ecuador
4		Americas Region	2	Honduras
1		Americas Region	1	Aruba
2		Americas Region	1	Barbados
3		Americas Region	1	Belize
4		Americas Region	1	Canada
5		Americas Region	1	Cayman Islands
6		Americas Region	1	French Guiana
7		Americas Region	1	Guadeloupe
8		Americas Region	1	Jamaica
9		Americas Region	1	Martinique
10		Americas Region	1	Netherlands Antilles
11		Americas Region	1	Nicaragua
12		Americas Region	1	Saint Barthelemy
13		Americas Region	1	Saint Lucia
14		Americas Region	1	Saint Martin
15		Americas Region	1	Sint Maarten
16		Americas Region	1	Trinidad
17		Americas Region	1	Turks and Caicos Islands
18		Americas Region	1	Virgin Islands, British.
1		Atlantic Region	7	United Kingdom
1		Atlantic Region	3	France
1		Atlantic Region	2	Germany
1		Atlantic Region	1	Canada
2		Atlantic Region	1	Denmark
3		Atlantic Region	1	Ireland
4		Atlantic Region	1	Italy
5		Atlantic Region	1	Netherlands
6		Atlantic Region	1	Portugal
7		Atlantic Region	1	Spain
1		Pacific Region	7	Japan
1		Pacific Region	4	Australia
1		Pacific Region	2	China
2		Pacific Region	2	Korea, South
3		Pacific Region	2	Taiwan
1		Pacific Region	1	American Samoa
2		Pacific Region	1	Brunei
3		Pacific Region	1	Fiji
4		Pacific Region	1	French Polynesia

Attachment B
U.S. International Submarine Cables - Landing Points
Summary of Landing Points by Region and Foreign Landing Point

		Cable Region	No. of Cable Passed (NCP)	Landing Point
5		Pacific Region	1	Hong Kong
6		Pacific Region	1	Malaysia
7		Pacific Region	1	New Zealand
8		Pacific Region	1	Papua New Guinea
9		Pacific Region	1	Philippines
10		Pacific Region	1	Samoa
11		Pacific Region	1	Singapore
12		Pacific Region	1	Thailand
13		Pacific Region	1	Vietnam

Frequency Table
Summary

NCP	Americas	Atlantic	Pacific
1	18	7	13
2	4	1	3
3	7	1	
4	1		1
5	3		
6			
7		1	1
8	1		