



INTERNATIONAL BUREAU

REPORT

2001 Section 43.82 Circuit Status Data

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Introduction

This report contains information on U.S. international facilities-based carriers' circuits as of year-end 2001 that was submitted to the Federal Communications Commission (Commission) by U.S. carriers pursuant to Section 43.82 of the Commission's rules.¹ In addition to the year 2001 data, for comparison purposes, this report includes data from previous reports covering 1998 through 2000. Section 43.82 of the Commission's Rules directs facilities-based carriers to file an international circuit status report by March 31 each year for circuits used to provide international services as of December 31 of the preceding year. The detailed filing requirements are set forth in the *Manual for Filing Section 43.82 Circuit Status Data* that can be found on the International Bureau's Web site at "<http://www.fcc.gov/ib/pd/pf/csmanual.html>."

The aggregated information in this report is useful for Commission regulatory purposes as well as for the public, including industry members, analysts, and potential new entrants. In addition, this annual circuit status report serves as a database for determining and monitoring the payments that the Commission is required to collect (*i.e.*, annual regulatory fees on active 64 Kbps equivalent international circuits).

Reporting Requirements

All U.S. international facilities-based common carriers are required to file circuit status information, reflecting both activated (in-service) and idle (available but not in-service) capacity. Although units of circuit capacity have increased to E-1² and STM-1³ levels, all services are reported in 64 Kbps equivalent circuits, the minimum measurable unit. This is done to accommodate those carriers that have low traffic volume and therefore cannot report in a large capacity unit, such as an E-1 unit, with respect to any particular country.

The Commission's manual on filing circuit status reports defines international facilities-based circuits as "international circuits in which a carrier has an ownership interest which includes outright ownership, indefeasible right of use (IRU) interests, or leasehold interest in capacity in an international facility, regardless of whether the underlying facility is a common or non-common carrier submarine cable or an INTELSAT or other satellite system." This definition is consistent with the definition of "International

¹ 47 C.F.R. § 43.82.

² 1 E-1 = 30 64 Kbps circuits.

³ 1 STM-1 = 1,890 64 Kbps circuits.

facilities-based carrier" contained in Section 63.09 (a) of the Commission's rules.⁴

This report includes circuits from U.S. domestic points to foreign points as well as to offshore U.S. points. United States and foreign points are identified in the Wireline Competition Bureau Industry Analysis and Technology Division report titled *International Points used for FCC Reporting Purposes (International Points Report)*, released April 1, 1994.⁵ U.S. domestic points are the 50 states, the District of Columbia, and Puerto Rico. Foreign points include foreign destinations as well as ships operating in international waters. Offshore U.S. points include U.S. territories such as American Samoa, Guam, Baker Island, Howland Island, Jarvis Island, Johnston Atoll, Kingman Reef, Midway Atoll, Navassa Island, the Northern Mariana Islands, Palmyra Atoll, the U.S. Virgin Islands, and Wake Island.

The *International Points Report* uses the following regional codes:

<i>Region</i>	<i>Code</i>
Western Europe	1
Africa	2
Middle East	3
Caribbean	4
North and Central America	5
South America	6
Asia	7
Oceania	8
Eastern Europe	9
International Water Area	10

The services that are covered by this report include International Message Telephone Service (IMTS) (switched voice), International Private Line Service (IPLS) (including voice and data) and Miscellaneous or Other International Services (including any data services and video services, other than private line service).

Data Presentation

⁴ 47 C.F.R. § 63.09 (a).

⁵ See <http://www.fcc.gov/wcb/latd/intl.html>.

Table 1 lists 110 carriers that filed circuit status reports, a substantial decrease from the 166 entities that filed in 2000. However, seventy-four carriers, nine fewer than last year's eighty-three carriers, filed and reported active or idle capacity in 2001. The remaining thirty-six carriers did not have active or idle capacity in 2001.⁶ Among the filings, ten carriers including the largest three – Concert Global Networks USA L.L.C.⁷, WorldCom, Inc. and Sprint Communications Company L.P. – requested confidentiality under the Freedom of Information Act.⁸ As denoted in Table 1, these carriers' reports are not available to the public. Our aggregated data, as listed in this report, however, reflects all of the carriers' information, including information from those carriers asking for confidential treatment.

Tables 2 through 5 present four years of available data (1998 through 2001)⁹ for each category of transmission facility. Table 2 presents undersea cable circuit status; Table 3, satellite; Table 4, terrestrial;¹⁰ and Table 5, the combined transmission circuits. All tables include information organized by service type for 1998, 1999, 2000, and 2001 data.¹¹

As Table 2 shows, the undersea cable circuits accounted for 71% of the overall active transmission capacity in 2001, compared to 67% in 2000. This reflects the continuing trend of cable's dominance in the international transmission capacity market. Table 3 shows that international satellite circuits only accounted for 3% of overall transmission capacity, compared to 5% in 2000. As Table 4 demonstrates, terrestrial links accounted for 25% of 2001 active circuit capacity, a decrease from 2000's 28%.

Table 5 combines all three transmission media. A service mix by region from 1998 to 2001 is calculated in the last page of Table 5. For 2001, IMTS circuits accounted for 16.0% of the total active capacity. This figure represents a slight increase from 15% in 2000. Private Line and other data services continued to show growth in 2001, but the rate of growth - 20% from 2000 to 2001 - was substantially slower than the previous growth rate of 153% and 110% for 2000 and 1999, respectively.

⁶ This year we instructed carriers not to file a report if they did not have any activated or idle circuits as of December 31, 2001. The number of reporting carriers, therefore, is substantially lower than last year's total due to a decrease in non-reporting carriers (those with no active or idle circuits). See Annual International Circuit Status (and Addition) Reports Due on March 31, Public Notice, DA 02-550 (rel. March 7, 2002).

⁷ A joint venture of AT&T and British Telecommunications, plc.

⁸ 5 U.S.C § 552. *See also* 47 C.F.R. § § 0.457, 0.459.

⁹ This report excludes 1995 – 1997 data, but that information is available in our previous reports, which are available on the FCC website <http://www.fcc.gov/ib/pd/pf/csmanual.html>.

¹⁰ Terrestrial circuits include circuits carried by both microwave facilities and by terrestrial cables. Terrestrial circuits do not include circuits carried by undersea cables.

¹¹ We received several carriers' revisions to their 1999 and 2000 data after we released our 2000 report. All 1999 and 2000's data presented in this report have been revised to incorporate those changes. We note that the revisions to the 2000 data were significant. The number of satellite circuits on December 31, 2000 have been reduced from the number previously reported - 128,681 to 92,716 - about a 28% reduction. The number of reported active cable circuits on December 31, 2000 is also lower - 1,483,219 to 1,333,024 - a 10% reduction. However, the idle cable circuits for 2000 have increased from 1,015,383, to 1,169,481, a 15% increase.

Table 6 lists the top 30 destinations that accounted for almost 96% of the total U.S.-activated circuits at year-end 2001. The United Kingdom, Canada, Mexico, Japan, and Australia are the top five countries.

The previous years' top 30 ranking countries also are included in the table for comparison. Macau, South Africa, and Thailand are new among the top 30 destinations in 2001, replacing Israel, Denmark, and Russia. Only one of the top 30 destinations experienced heavier capacity use for IMTS than for private lines and other data services in 2001. The overall ratio of IMTS to private line and other data services has continued to decrease from 0.8 to 1 in 1998, to 0.4 to 1 in 1999, to 0.2 to 1 in 2000, and 0.2 to 1 in 2001. The ratios of IMTS to private line and other data services for the top 30 destinations, as well as for each region, are also listed in Table 6.

Supplementary Data

Table 7 lists all operational trans-oceanic fiber optic cables in 64 Kbps units, and planned new cables whose applications have been submitted to the Commission, from 1988 to 2002. The reported total construction cost of each cable (if available) also is included in Table 7 for further reference. In 2001, the combined cable capacity (activated and idle circuits) reported by U.S. carriers for the trans-Atlantic region was 2,983,810 64 Kbps circuits (Regions 1, 2, 3 and 9), a 53% increase from the 1,950,265 circuits reported in 2000. Because of three new cables (TAT-14, FLAG Atlantic-1, and Tyco Atlantic) that went into service in 2001,¹² the reported combined total for activated and idle circuits in the trans-Atlantic region accounted only for 21.6% of the total available cable capacity. For the Americas region (Regions 4, 5 and 6), three new cables have been added to the supply pool, a modest 48% single-year increase in circuit capacity. The reported activated and idle cable capacity only accounted for 9.7% of the total available cable capacity in this region. For the trans-Pacific region, the reported activated and idle cable capacity accounted for 18.5% of the total available cable capacity. The reported activated circuits as a percent of total available circuits for three regions are also included in Table 7. Overall, the total of reported activated circuits only accounted for 7.9% of total available capacity.

As indicated in our previous reports, cable capacity (activated plus idle circuits) reported here likely understates the actual amount of capacity that is in use for the reasons cited in the footnote below.¹³

¹² 360atlantic cable also was built and made ready for service in 2001. However, 360network, the owner of the 360atlantic cable, filed for Chapter 11 protection on June 28, 2001 and on October 25, 2001, the 360atlantic group of companies, also filed for Chapter 11 protection (<http://www.360.net/News---Release---Details.asp?ID=146>, downloaded on 10/31/2002). Therefore, 360atlantic cable capacity was not available for 2001 and its availability is still uncertain for the remainder of 2002. Thus, we did not include 360atlantic's capacity in our calculation. 360americas, another cable owned by 360network, was not in the asset pool of the bankruptcy procedure, and therefore is still in commercial operation. We have included that cable in our calculation of available cable capacity.

¹³ We identified three reasons in our previous reports that caused the discrepancy between reported capacity (activated plus idle circuits) and available capacity. First, foreign carriers hold significant amounts of the U.S. international cable capacity and are not required to report their capacity under Section 43.82 unless they use their capacity for the provision of U.S. international service. Second, for any new cable system, a substantial amount of capacity that is actually activated or idle may be under-reported, particularly in the year in which many new cables come on line. Third, an increasing number of non-common carrier cables have been built, and much of the capacity on those private cables is sold to end-users, such as Internet Service providers (ISPs) or to foreign carriers or foreign ISPs. Under those circumstances, neither cable owners nor

This year's data shows a pattern that is similar to previous years: the overall reported cable capacity accounted for only 19.2% of the total available cable capacity. This is due in large part to the fact that eight new cables were added to the total available capacity in 2001. Those new cables accounted for 47% of the total capacity in 2001. Because they have just recently been activated, they most likely accounted for more excess capacity than they would have by the middle of the next year. Thus, this reported percentage, 19.2%, tends to overstate what would otherwise be unreported capacity averaged over a full year. Nevertheless, some cable capacity that is in use is not covered in our report.

The same discrepancy between reported and available capacity could exist for satellite data because many private satellite operators market their capacity directly to end-users and thus, are not subject to our reporting requirements.¹⁴ The reported satellite active circuits show an 11% decrease in 2001. This number might understate the true number of satellite circuits in use.

We note that unlike the past three years, we do not anticipate that a large number of new cables will come on-line in 2002 and 2003. Only one new cable is scheduled to be operational in 2002 (Apollo cable) and another one (Tyco Pacific) might be in service in 2003.¹⁵ In the past year, the overall downturn of the economy has resulted in slower growth in demand, and several private cable operators have filed for bankruptcy.¹⁶ As a result, our estimated initial capacity in Table 7 for some of those private cables could be overstated. Due to the lack of concrete information on initial capacity, we have not modified our estimates. Rather, we have based our calculations on the planned initial capacity as stated in each cable's application filing.

cable users are required to report those capacities that are either activated or idle.

¹⁴ The calculation for total U.S. satellite available capacity is done differently from the calculation for total U.S. available cable capacity. Due to the flexible nature of satellite coverage, each satellite can cover various countries and can be available to all those countries within its footprint. Therefore, there is no accurate way to calculate the fixed amount of capacity that can be allocated to any given country at any specific time frame. On the other hand, fiber optic cables are fixed because they are deployed only to their planned cable stations, making it possible to calculate the total available cable capacity on a particular route at any given time frame.

¹⁵ The only cable application filed with the FCC during the Jan. 2001 – June 2002 period was the US – UK – France Apollo cable.

¹⁶ In fact, 360network, Global Crossing and FLAG Telecom have all filed for bankruptcy in the past year. In June 28, 2001, 360networks filed for reorganization under Chapter 11 in Canada and in the U.S. (<http://www.360.net/News---Releases---Details.asp?ID=136>, downloaded on 10/31/2002). The company emerged from the bankruptcy on October 2, 2002 (<http://www.360.net/News---Releases---Details.asp?ID=169>, downloaded on 10/31/2002). Global Crossing filed for Chapter 11 protection on January 28, 2002. The company is expected to emerge from bankruptcy in early 2003 (<http://www.globalcrossing.com.xmlres/index.xml>, downloaded on 10/31/2002). FLAG Telecom filed for Chapter 11 protection on April 12, 2002 and emerged from bankruptcy on October 10, 2002 (<http://www.flagtelecom.com/newsroom/Newsitem.asp?iNewsID=174>, downloaded on 10/31/2002).