

**TABLE 7 - Trans-Ocean Fiber Optic Cable Capacity  
64 Kbps Circuits**

CABLES	Class*	Cost \$M	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000 Est.	2001 Est.	2002 Est.
<b>TRANS - ATLANTIC (T-A) -</b>																	
<b>Operational :</b>																	
CANTAT-3 **	P	\$600							60,480	60,480	60,480	60,480	60,480	60,480	60,480	60,480	60,480
CANUS-1	P	n.a.	0	0	0	0	0	0	0	30,240	30,240	30,240	30,240	30,240	30,240	30,240	30,240
Columbus II * **	C	\$404	0	0	0	0	0	0	15,120	15,120	15,120	15,120	15,120	15,120	15,120	15,120	15,120
PTAT 1	P	\$400	0	17,010	17,010	17,010	17,010	17,010	17,010	17,010	17,010	17,010	17,010	17,010	17,010	17,010	17,010
TAT 8	C	\$360	7,560	7,560	7,560	7,560	7,560	7,560	7,560	7,560	7,560	7,560	7,560	7,560	7,560	7,560	7,560
TAT 9	C	\$406	0	0	0	0	15,120	15,120	15,120	15,120	15,120	15,120	15,120	15,120	15,120	15,120	15,120
TAT 10	C	\$300	0	0	0	0	22,680	22,680	22,680	22,680	22,680	22,680	22,680	22,680	22,680	22,680	22,680
TAT 11	C	\$280	0	0	0	0	0	22,680	22,680	22,680	22,680	22,680	22,680	22,680	22,680	22,680	22,680
TAT 12/TAT-13	C	\$756	0	0	0	0	0	0	0	60,480	120,960	120,960	241,920	362,880	362,880	362,880	362,880
Gemini	P	\$520										60,480	120,960	362,880	362,880	362,880	362,880
Atlantic Crossing (AC-1)	P	\$750											241,920	967,680	1,693,440	1,693,440	1,693,440
Columbus III	C	\$236												120,960	120,960	120,960	120,960
Level 3	P	\$300													1,935,360	1,935,360	1,935,360
AC-2	P	\$300													1,935,360	1,935,360	1,935,360
<b>Planned :</b>																	
TAT-14	NC	\$1,500														1,935,360	1,935,360
FLAG Atlantic - 1	P	\$1,200														1,935,360	1,935,360
360atlantic	P	\$630														1,935,360	1,935,360
TyCom Atlantic	P	n.a.														3,386,880	3,386,880
(1) Total T-A			7,560	24,570	24,570	24,570	62,370	85,050	160,650	251,370	311,850	372,330	795,690	2,005,290	6,601,770	15,794,730	15,794,730
(2) Total T-A w/o CANTAT-3			7,560	24,570	24,570	24,570	62,370	85,050	100,170	190,890	251,370	311,850	735,210	1,944,810	6,541,290	15,734,250	15,734,250
(3) 43.82 Reported circuits of regions 1,2,3,9 (active+ Idle)										91,399	101,876	141,256	322,944	500,280			
(4) Reported % = (3) / (2) (w/o CANTAT-3)										47.9%	40.5%	45.3%	43.9%	25.7%			
<b>AMERICAS -</b>																	
<b>Operational :</b>																	
Americas I * **	C	\$268							22,680	22,680	22,680	22,680	22,680	22,680	22,680	22,680	22,680
TCS-1	C	\$133			1,890	1,890	1,890	1,890	1,890	1,890	1,890	1,890	1,890	1,890	1,890	1,890	1,890
Taino-Carb	C	\$17					45,360	45,360	45,360	45,360	45,360	45,360	45,360	45,360	45,360	45,360	45,360
Antillas 1	C	n.a.										15,120	15,120	15,120	15,120	15,120	15,120
BAHAMAS II	C	n.a.										30,240	30,240	30,240	30,240	30,240	30,240
Pan American Cable System	C	\$214											120,960	120,960	120,960	120,960	120,960
Americas II	C	\$310													604,800	604,800	604,800
MAC	P	\$200													241,920	241,920	241,920
PAC	P	\$365													241,920	241,920	241,920
MAYA -1	C	\$150													90,720	90,720	90,720
360americas (former Atlantic-1)	P	n.a.													241,920	241,920	241,920
SAC	P	\$700													483,840	483,840	483,840
<b>Planned :</b>																	
ARCOS-1	P	\$285														181,440	181,440
SAm-1	P	\$900														483,840	483,840
Bahamas Internet Cable Network	P	n.a.														362,880	362,880
(1) Total Americas			0	0	1,890	1,890	47,250	47,250	69,930	69,930	69,930	115,290	236,250	236,250	2,141,370	3,169,530	3,169,530
(2) Total Americas (without Taino-Carb cable)										24,570	24,570	69,930	190,890	190,890	2,096,010	3,124,170	3,124,170
(3) 43.82 reported circuits of regions 4, 5, 6 (active+ Idle)										19,942	19,160	24,699	32,384	36,064			
(4) Reported % = (3) / (2) (w/o Taino-Carb) ****										81.2%	78.0%	35.3%	17.0%	18.9%			

**TABLE 7 - Trans-Ocean Fiber Optic Cable Capacity  
64 Kbps Circuits**

CABLES	Class*	Cost (\$M)	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999 .	2000 Est.	2001 Est.	2002 Est.		
<b>TRANS - PACIFIC (T-P) -</b>																			
<b>Operational:</b>																			
HAW 4/TPC 3	C	\$601	0	7,560	7,560	7,560	7,560	7,560	7,560	7,560	7,560	7,560	7,560	7,560	7,560	7,560	7,560		
NPC	P	n.a.	0	0	0	17,010	17,010	17,010	17,010	17,010	17,010	17,010	17,010	17,010	17,010	17,010	17,010		
TPC 4	C	\$408	0	0	0	15,120	15,120	15,120	15,120	15,120	15,120	15,120	15,120	15,120	15,120	15,120	15,120		
HAW-5	C	\$152						15,120	15,120	15,120	15,120	15,120	15,120	15,120	15,120	15,120	15,120		
PacRimEast	C	\$280						7,560	7,560	7,560	7,560	7,560	7,560	7,560	7,560	7,560	7,560		
PacRimWest	C	\$282							7,560	7,560	7,560	7,560	7,560	7,560	7,560	7,560	7,560		
TPC 5	C	\$1,348	0	0	0	0	0	0	0	0	120,960	120,960	241,920	241,920	241,920	241,920	241,920		
PC-1	P	\$1,200												967,680	967,680	967,680	967,680		
Guam-Philippines	NC	n.a.												120,960	120,960	120,960	120,960		
China - U.S. Cable Network	NC	\$1,100														967,680	967,680		
Southern Cross	C	\$800													483,840	483,840	483,840		
<b>Planned:</b>																			
Japan - U.S. Cable Network	NC	\$1,000															967,680	967,680	
FLAG - Pacific -1	P	\$2,100															1,935,360	1,935,360	
360pacific Cable Network	P	\$1,100																3,870,720	
Australia-Japan Cable (Guam)	NC	\$350																967,680	967,680
Tycom Pacific	P	n.a.																	4,354,560
(1) Total T-P			0	7,560	7,560	24,570	39,690	62,370	62,370	69,930	190,890	190,890	311,850	1,400,490	2,852,010	6,722,730	14,948,010		
(2) 43.82 Reported circuits of regions 7.8 (active+ Idle)																			
(3) Reported % = (2) / (1)																			
<b>ALL REGIONS -</b>																			
(4) Total Available Capacity																			
(5) Total Non-Common Carrier Cables (consortium & private)																			
(6) Total 43.82 Reported Circuits																			
(7) Total Reported % = (6) / (4)																			
(8) Non-Common Carrier Cables as % of total capacity = (5)/(4)																			

\* Class : "C" = Common Carrier Cable, "NC" = Non-Common Carrier Consortium Cable, and "P" = Private Cable.

\*\* CANTAT-3 is a Canadian cable. Because there is little information on the U.S. carriers' ownership, we excluded CANTAT-3 in our total reported % calculation.

\*\*\* Americas I and Columbus II have common segments from Florida to U.S. Virgin Islands at 60,480 circuits capacity. These large common segments are designed for back up purposes. From U.S.V.I. landing point and beyond, Americas I has 22,680 circuits to its South American destinations. Columbus II has 15,120 circuits to its European destinations. For the purpose of calculating available capacity for Americas and European regions, we decided to use the most reasonable capacity of 22,680 and 15,120 for Americas I and Columbus II respectively. We have revised Columbus II capacity from 22,680 to 15,120 circuits in this year's report.

\*\*\* Taino-Carb cable only connects from Puerto Rico to the U.S. Virgin Islands and British Virgin Island (basically serves as a hub). We therefore excluded this cable in our reported % calculation.

Conversion Ratio Used:

- 1 E-1 Circuit = 30 64 Kbps Circuits
- 1 DS-3 Circuit = 21 E-1s = 630 64 Kbps Circuits
- 1 STM Circuit = 3 DS-3s = 63 E-1s = 1,890 64 Kbps Circuits
- 5 Gbps = 2,016 E1s = 60,480 64 Kbps Circuits
- 10 Gbps = 4,032 E1s = 120,960 64 Kbps Circuits

**TABLE 7 - Trans-Ocean Fiber Optic Cable Capacity  
64 Kbps Circuits**

**Table 7 - Data sources:**

Cable capacity numbers are extracted from the FCC Cable Landing License Orders or pending Applications (see the following details).

For construction costs, some numbers are available in their License Order, others are available at each project's website, as cited below.

CABLES	Landing Points	FCC File No.	Release Date	FCC Record
<b>TRANS - ATLANTIC -</b>				
<b>Operational :</b>				
TAT-8	U.S./U.K./France	I-T-C-84-072 , FCC 84-240 34614	June 8, 1984	98 FCC 2 d 440 (1984)
PTAT	U.S./Bermuda/Ireland/UK.	SCL-85-001, FCC 85-99 35600	April 5, 1985	100 FCC 2 d 1033 (1985)
TAT-9	U.S./Canada/U.K./France/Spain	SCL-88-004, DA 88-1961	December 27, 1988	3 FCC Rcd 7304 (1988)
TAT-10	U.S./Germany/Netherlands	SCL-91-001, FCC 91-416	January 10, 1992	7 FCC Rcd 130 (1992)
TAT-11	U.S./U.K./France	SCL-91-002, FCC 91-418	January 10, 1992	7 FCC Rcd 134 (1992)
TAT-12/13	U.S./U.K./France	I-T-C-93-062 , DA 93-823	July 16, 1993	8 FCC Rcd 4810 (1993)
CANTAT-3	Canada/Iceland/Denmark/Germany/UK	SCL-92-004, FCC 93-137	April 1, 1993	8 FCC Rcd 2267 (1993)
Columbus II	U.S./Mexico/PR/Portugal/Spain/Italy	SCL-93-001, DA 93-908	July 26, 1993	8 FCC Rcd 5038 (1993)
CANUS-1	U.S./Bermuda/Canada	SCL-95-004 (M) , DA 96-956	June 14, 1996	11 FCC Rcd 7121 (1996)
Atlantic Crossing (AC-1)	U.S./U.K./Germany	SCL-97-002, DA 97-2034	September 23, 1997	13 FCC Rcd 5961(1998)
Gemini Cable System - continued	U.S./U.K.	SCL-96-004, DA 96-1649 & 2151	October 3 & December 18, 1996	11 FCC Rcd 12732 (1996) & 12 FCC Rcd 8637 (1997)
Columbus III	U.S./Italy/Spain/Portugal	ITC-98-437, DA 99-1637	Aug. 20, 1999	14 FCC Rcd 13436 (1999)
Level 3 *	U.S./U.K.	SCL-LIC-19990913-00019, DA 00-108	Jan 21, 2000	15 FCC Rcd 842 (2000)
AC-2 *	U.S./U.K.	SCL-MOD-20000511-00018, DA 00-256	Nov. 9, 2000	N.A.
<b>Planned :</b>				
TAT-14	U.S./Demark/Germany/Netherlands/France/UK	SCL-LIC-19990303-00004, DA 99-2042	Oct. 1, 1999	14 FCC Rcd 48090 (1999)
Flag Atlantic - 1	U.S./U.K./France	SCL-LIC-19990303-00005, DA 99-2041	Oct. 1, 1999	14 FCC Rcd 48091 (1999)
360atlantic	US/Canada/Ireland/U.K.	SCL-LIC-19990804-00012, DA 00-76	Jan 14, 2000	15 FCC Rcd 785 (2000)
TyCom - Atlantic	U.S./U.K.	SCL-LIC-20000308-00007, DA 00-1808	August 8, 2000	N.A.
<b>AMERICAS -</b>				
<b>Operational :</b>				
Americas I	US/USVI/Brazil/Fr. Guyana/Martinique/Trinidad	SCL-93-002, DA 93-909	July 26, 1993	8 FCC Rcd 5041 (1993)
- Continue	Venezuela/Curacao/Guyana/Suriname			
TCS-1	US/PR/Dominican Rep./Jamaica/Colombia	SCL-89-003, DA 89-1667	January, 5, 1990	5 FCC Rcd 100 (1990)
Taino-Carb	PR/USVI/British V.I.	SCL-92-002, DA 92-861	July 6, 1992	7 FCC Rcd 4275 (1992)
BAHAMAS II	US/Bahamas	ITC-96-234, DA 96-1234	August 6, 1996	11 FCC Rcd 37604 (1996)
Antillas I	PR/Dominican Rep.	SCL-95-012, DA 96-1052	July 2, 1996	11 FCC Rcd 7690 (1996)
Pan American Cable System	USVI/Aruba/Venez/Colom/Pan/Ecu/Peru/Chile	SCL-97-001, DA 98-81	January 20, 1998	13 FCC Rcd 850 (1998)
Americas II	US/PR/USVI/Martinique/Curacao/Trinidad/-	ITC-98-342, 342A, DA 98-2294	November 10, 1998	13 FCC Rcd 22534 (1998)
- Continue	Venezuela/French Guiana/Brazil			
MAC	US/USVI	SCL-LIC-19981030-00023, DA 99-509	March 18, 1999	14 FCC Rcd 3981 (1999)
PAC	US/Mexico/Panama/Venezuela/USVI	SCL-LIC-19981103-00022, DA 99-510	March 18, 1999	14 FCC Rcd 3989 (1999)
MAYA - 1	US/Cayman Isl./Colombia/Costa Rica/	SCL-LIC-19990325-00006, DA 99-2579	Nov. 18, 1999	14 FCC Rcd 19456 (1999)
- continue	Honduras/Mexico/Panama			
360americas (former Atlantica-1)	US/Venezuela/Brazil/Bermuda	SCL-LIC-19990602-00010, DA99-2778	Dec. 10, 1999	14 FCC Rcd 20787 (1999)
SAC	USVI/Brazil/Arg/Chile/Peru/Colombia/Panama	SCL-LIC-19990823-00015, DA 00-310	Feb. 17, 2000	15 FCC Rcd 3039 (2000)
<b>Planned :</b>				
ARCOS-1 (Americas Region Caribbean Ring System)	US/Bahamas/Turks/Dom Rep/PR/Curacao/Ven/Colom/Pan/Costa Rica/Nica/Honduras/Guatemala/Belize/Mexico	SCL-LIC-19981222-00032, DA 99-1312	July 2, 1999	14 FCC Rcd 10597 (1999)
Bahamas Internet Cable System	US/Bahamas	SCL-LIC-20000118-00001, DA 00-1349	June 20, 2000	15 FCC Rcd 10818 (2000)
South America-1 Cable System (SAm-1)	US/PR/Brazil/Argentina/Chile/Peru/Guatemala	SCL-LIC-20000204-00003, DA 00-1826	August 10, 2000	N.A.

\* Level 3 and Global Crossing will jointly build the original granted Level 3 cable. Global Crossing's portion of the cable (50% of the total capacity) will be called "AC-2".

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**Table 7 - Data sources:**  
**Cable capacity numbers are extracted from the FCC Cable Landing License Orders or pending Applications (see the following details).**  
**For construction costs, some numbers are available in their License Order, others are available at each project's website, as cited below.**

<b>TRANS - PACIFIC -</b>				
<b>Operational :</b>				
HAW-4/TPC-3	U.S./Hawaii/Guam/Japan	I-T-C-85-219 & ITC-88-024, DA 88-185	January 7, 1986 & February 22, 1988	3 FCC Rcd 940 (1988)
NPC	U.S./Japan	SCL-86-002-(M), FCC 89-304	November 15, 1989	4 FCC Rcd 8061 (1989)
TPC-4	U.S./Canada/Japan	SCL-89-004, FCC 89-305	November 15, 1989	4 FCC Rcd 8040 (1989)
PacRimWest	Australia/Guam	ITC-90-097, FCC-90-379	December 10, 1990	5 FCC Rcd 7362 (1990)
PacRimEast	HI/NZ	ITC-90-072, FCC-90-378	December 10, 1990	5 FCC Rcd 7331 (1990)
HAW-5	US- CA/HI	ITC-90-081, FCC-90-377	December 10, 1990	5 FCC Rcd 7344 (1990)
TPC-5	U.S./Japan	SCL-92-005, DA 92-1560	November 25, 1992	7 FCC Rcd 7674 (1992)
Southern Cross	U.S./Fiji/Australia/New Zealand	ITC-97-622 DA 98-273	February 13, 1998	13 FCC Rcd 2939 (1998)
China - U.S. Cable Network	U.S./China/Taiwan/Japan/S. Korea/Guam	SCL-98-002, DA 98-1711	August 28, 1998	13 FCC Rcd 16232 (1998)
PC-1	US/Japan	SCL-98-006, DA 98-2351	November 23, 1998	13 FCC Rcd 23384 (1998)
Guam-Philippines Cable	Guam/Philippines	SCL-98-004, DA 98-2550	December 15, 1998	14 FCC Rcd 1923 (1999)
<b>Planned :</b>				
Japan - U.S. CN	US/Hi/Japan	SCL-LIC-19981117-00025, FCC 99-167	July 9, 1999	14 FCC Rcd 13066 (1999)
FLAG Pacific -1	US/Japan	SCL-LIC-20001014-00020, DA 00-2568	November 9, 2000	N.A.
360pacific Cable Network	US/Hi/Japan	SCL-LIC-20000620-00024, DA 00-2616	November 20, 2000	N.A.
Australia-Japan Cable (Guam) - (AJC)	Australia/Guam/Japan	SCL-LIC-20000629-00025, DA 00-2758	December 8, 2000	N.A.
Tycom Pacific	US/Hi/Guam/Japan	SCL-LIC-20000717-00026, DA 00-2762	December 8, 2000	N.A.

\* OXYGEN (USA) and AmeriCan-1 cable systems, two projects that have not started construction, have been deleted from this Table..

Note: All future cables' capacity are based on the information available at the time of the planned cables' filing (and subsequent updates). These estimates, however, are subject to change.

In order to be conservative, we listed only initial capacity for all future cables in this Table. However, the full potential capacity of each cable is listed below for further reference.

	Cable System	Initial Capacity (in Gbps)	Potential Max Capacity (Gbps)
AOR:	Gemini	10	30
	AC-1	40	140
	Columbus III	10	40
	TAT-14	160	640
	FLAG Atlantic - 1	160	2,400
	Level 3	160	640
	AC-2	160	640
	360atlantic	160	1,280
	TyCom Atlantic	280	2,560
	Americas:	Americas II	50
MAC		20	40
PAC		20	40
MAYA -1		7.5	20
360americas (former Atlantic-1)		20	640
SAC		40	80
ARCOS-1		15	640
SAm-1		40	1,920
Bahamas Internet Cable Netwo		30	75
POR:		PC-1	80
	China - U.S. Cable Network	80	80
	Southern Cross	40	40
	Guam-Philippines	10	10
	Japan - U.S. Cable Network	80	640
	FLAG - Pacific -1	160	5,120
	360pacific Cable Network	320	3,840
	Australia-Japan Cable (Guam)	80	640
	Tycom Pacific	360	5,120