

C

DA 88-1269

FEDERAL COMMUNICATIONS COMMISSION (F.C.C.)

In the Matter of
AMERICAN TELEPHONE AND TELEGRAPH COMPANY
GTE HAWAIIAN TELEPHONE COMPANY, INCORPORATED
MCI INTERNATIONAL, INC.
RCA GLOBAL COMMUNICATIONS, INC.
TRT TELECOMMUNICATIONS CORPORATION
US SPRINT COMMUNICATIONS COMPANY
WU WORLD COMMUNICATIONS INC.

Application for Amended Authorization Under Section 214 of the Communications Act of 1934, as Amended, to Construct and Operate High Capacity Digital Submarine Cable System Between and Among the Island of Guam, the Island of Luzon, Philippines, and Taiwan

File No. **I-T-C-88-094**

MEMORANDUM OPINION, ORDER AND AUTHORIZATION

Adopted: August 11, 1988;

Released: August 22, 1988

****5091** By the Chief, Common Carrier Bureau:

1. The Commission has before it an application filed by several U.S. common carriers (Applicants) [FN1] to amend the authorization they received on January 7, 1986 pursuant to Section 214 to construct and operate a high capacity digital submarine cable system, GP-2, between the Island of Guam, and the Philippines. [FN2] Under the plan approved by the Commission, the cable linking the Philippines with Taiwan was originally planned to be in service in 1994. The Applicants now propose to extend the GP-2 cable beyond the Philippines to Taiwan, and to redesignate GP-2 as Guam-Philippines-Taiwan (G-P-T). The cable system will be jointly owned by the Applicants and a number of foreign telecommunications entities in Australia, Brunei, Canada, Federal Republic of Germany, Hong Kong, Japan, Korea, the Philippines, Singapore, Spain, Taiwan, and the United Kingdom. The proposed G-P-T cable system is planned to be in service in mid-1989. The application was placed on the Commission's March 25, 1988 public notice. No comments were received.

DESCRIPTION OF PROPOSED FACILITIES

2. The proposed G-P-T cable system will extend from the landing points at the existing cable station at Tanguisson on the Island of Guam to new cable stations at

Infanta on the Island of Luzon, the Philippines, and Fangshan in Taiwan, via a branching unit. The G-P-T cable system will be extended by suitable facilities to the borders of other countries participating in the previously authorized Hawaii-4/Transpacific-3 (HAW-4/TPC-3) and proposed G-P-T cable systems or to the terminals of other international communications systems, including other cable terminals and satellite earth stations. This will enable the HAW-4/TPC-3 and G-P-T cable systems to be used for services both between the United States and beyond, and Guam, the Philippines, Taiwan and Japan and beyond.

3. The Applicants also revised the proposed operating capacity of the cable system from a single Guam-Philippines fiber pair operating at 140 Megabits per second (Mbits/s) to two fiber pairs, each operating at 280 Mbits/s. The Applicants state that modification of the capacity of the system from 140 Mbits/s to 280 Mbits/s is necessary to meet the requirements of the G-P-T cable system owners and will also afford efficient interconnection with other Pacific cable systems, that generally operate at 280 Mbits/s. Via a branching unit, one fiber pair will connect Guam with the Philippines, the second fiber pair will connect Guam with Taiwan, and the third fiber pair will connect Taiwan and the Philippines.

*2 4. The G-P-T cable system Construction and Maintenance Agreement (C & MA) shows the system divided into four segments: Segment A includes a share of the cable station at Infanta, the Philippines; Segment B includes the whole of the submarine cable system between and including the nominal 140 Mbit/s digital input/output ports at the Segment A, C, and D cable stations; Segment C includes a share of the cable station at Tanguisson, Guam; and Segment D includes a share of the cable station at Fangshan, Taiwan.

5. The G-P-T co-owners have selected AT & T to construct Segment B of the system. [FN3] Segment B will use AT & T's submarine lightwave (SL) design, incorporating two working lightguide transmission paths with associated regenerators and supervisory circuits. A standby-only transmission path capable of being switched between repeaters is also provided. Between Guam and Luzon, the G-P-T cable system consists of one working fiber pair with two 140 Mbits/s streams containing a maximum total capacity of 3780 Minimum Assignable Units of Ownership (MAUOs). [FN4] For voice telephone requirements, digital circuit multiplication systems (DCMS) may be applied to derive an estimated nominal five virtual voice paths from each MAUO. [FN5] Between Guam and Taiwan, the G-P-T cable system consists of one working fiber pair with two 140 Mbit/s streams containing a maximum capacity of 3780 MAUOs. Between Taiwan and Luzon, the G-P-T cable system consists of one working fiber pair with two 140 Mbit/s streams containing a maximum capacity of 3780 MAUOs. [FN6]

6. The total estimated capital costs of the G-P-T cable system is \$176.6 million, in January 1988 U.S. dollars. Of this amount, \$29.7 million will be spent on the segment **5092 between the Philippines and the branching unit, \$95.3 million on the segment between Guam and the branching unit, \$50.0 million on the segment

between Taiwan and the branching unit, and \$1.6 million on the stations for Segments A, C, and D. About 90 percent of the costs of the G-P-T cable system will be on a fixed-price basis. The remaining 10 percent of the costs will be on either a cost-incurred or fixed-cost plus escalation-for-raw-materials basis. [FN7]

DISCUSSION

7. The issues concerning the need for and timing of facilities in the Pacific Ocean Region (POR) during the 1987-1995 period have been considered in Phase II of the comprehensive planning process. In the Phase II Report and Order, the Commission concluded that the public interest would be served by the introduction of a new fiber optic cable in the POR as early as 1988. [FN8] The Commission expressed a preference for the ring configuration described in Plan II-A (Mod. 4). Under Plan II-A (Mod. 4), the cable system will extend from the U.S. mainland to Hawaii (HAW-4/TPC-3 cable system to be introduced in 1988), continue via a branching unit to Guam and the Philippines (GP-2 cable to be introduced in 1989) and then extend from the Philippines linking Hong Kong, Korea and Japan in 1990, and Taiwan in 1994. The Commission found that the ring design would allow the cable to be self-restoring, in whole or in part, west of the branching unit. [FN9] For example, this configuration provides the Department of Defense (DoD) with alternative routing arrangements for connecting Guam with other locations in the Far East. [FN10] With a ring configuration, the loss of any one segment will not totally disrupt communications beyond that point.

*3 8. The Commission has already approved the construction and operation of capacity by Applicants in the HAW-4/TPC-3 and GP-2 systems. The HAW-4/TPC-3 cable is currently under construction as planned. GP-2 was designed to connect Guam and the Philippines. This amendment calls for the addition of a leg to Taiwan from a branching unit off the coast of the Island of Luzon. This addition is consistent with the ring configuration described in Plan II-A (Mod. 4) which the Commission found to be in the public interest. Introduction of the leg to Taiwan at this time will be less costly than building a separate cable to Taiwan from the Philippines in 1994 as originally proposed in Plan II-A (Mod. 4). The additional cost for the modification of this project is approximately \$63.18 million, considerably less than the estimated costs for construction of a separate cable system to Taiwan. The construction of the leg to Taiwan at this time will also allow the benefits of bringing digital fiber optic technology to Taiwan in an earlier time-frame. Timely introduction of the G-P-T cable system provides benefits not only for Taiwan, but for the U.S. carriers and their customers who will be provided digital connectivity from other fiber optic cable systems in the POR to Taiwan.

9. The cost of the G-P-T cable system is estimated at \$176.6 million in January 1988 dollars and the U.S. Applicants' share is 38.6607 percent, or approximately \$68.27 million. The Applicants' share of interest during construction will be approximately \$5.75 million. The total U.S. share of the G-P-T cost will be ap-

proximately \$74.02 million. Under the GP-2 cable system, the cost was estimated at \$107 million in January 1987 or \$113.42 million in January 1988 dollars, assuming a six percent rate of inflation. The Applicants' share was 46.38 percent, or approximately \$52.6 million in January 1988 dollars. The Applicants' share of interest during construction was estimated at \$6.5 million in January 1987 dollars, or \$6.9 million in January 1988 dollars assuming a six percent rate of inflation. The total U.S. share of the GP-2 cost would have been \$59.5 million. While the total cost to add the leg to Taiwan, the difference between \$176.6 million and \$113.4 million (not including interest during construction), is \$63.18 million, but the cost to U.S. Applicants increases only by \$14.52 million (even including the interest during construction).

10. The G-P-T cable system has been assigned notional capacity of 1890 MAUOs in its working fiber pairs consisting of two 140 Mbits/s streams between Guam and the Philippines, between Guam and Taiwan, and between the Philippines and Taiwan. However, the system includes a design capacity of a maximum of 3780 MAUOs in each working fiber pair. Under the terms of the C & MA, capacity in excess of projected need will be held by terminal country carriers in proportion to total ownership. A schedule of the allocation of the circuits in the G-P-T cable system is enclosed as Attachment I.

*4 11. Under the terms of the G-P-T C & MA, the cable system will be owned by the Applicants in the following proportions: AT & T--34.69878 percent; HTC 0.74424 percent; MCII--0.88032 percent; RCA Globcom--0.45570 percent; TRT-- 0.03711 percent; U.S. Sprint--1.45304 percent; and WU Worldcom--0.39151 percent for a total U.S. ownership interest of 38.6607 percent. The remaining ownership interests will be held jointly by the non-U.S. co-owners. (See Attachment II.)

12. Capacity in the G-P-T cable system will be used by each applicant to provide services to the countries listed in its respective circuit activation plan. The use of G-P-T by other U.S. carriers, and to provide service to countries that have no ownership in the cable system, will be accommodated through assignment of additional capacity to the terminal-country co-owners, above their requirements. Capacity will be conveyed by the terminal-country co-owners to non-owners on an Indefeasible Right of User (IRU) basis. The Applicants state that there will be sufficient capacity available in the initial years of service of G-P-T to accommodate the needs of other U.S. carriers and countries that are not co-owners but have, or will in the future identify, a need to use the G-P-T cable system.

[FN11] The C & MA also contains a provision similar to the one in the HAW-4/TPC-3 C & MA permitting the assignment of capacity in the G-P-T cable system between co-owners and others. [FN12]

13. The Applicants request authority to activate circuits in the G-P-T cable up to year-end 1991. Since the Commission no longer specifies circuit distribution guidelines for any United States carrier, [FN13] there is no reason for us to approve the applicants' circuit activation plans. Nevertheless, we do find the plan

to be an useful indicator of the applicants' proposed use of the G-P-T cable.

14. The Applicants each seek authority to acquire by lease such connecting facilities as may be required to extend the capacity in the G-P-T cable system to the points listed in their respective activation plans submitted with the application, at prevailing rates established by the transited administrations. Activations of satellite circuits and authority to acquire and activate capacity in other ****5093** connecting cable systems on an IRU or ownership basis, and the acquisition and use of DCMS equipment on G-P-T will be subject to separate applications.

15. The entire G-P-T cable system will be constructed by AT & T. As in the case of the HAW-4/TPC-3 cable systems, the construction of the G-P-T system by U.S. firms benefits the U.S. economy and the U.S. industry's role as leader in optical fiber submarine cable systems and advanced technology.

16. The grant of the requested authorizations will not constitute major actions as defined in Section 1.1305 of the Commission's Rules and Regulations implementing the National Environmental Policy Act of 1969, [42 U.S.C. Sections 4321-4347 \(1976\)](#). [FN14] Consequently, no environmental information is required to be submitted with this Application by Section 1.1311 of the Commission's Rules.

***5** 17. After consideration of the instant application to amend the GP-2 authorization to construct and operate the G-P-T cable system, we find that the proposal is fully consistent with the Commission's policy objectives expressed in the Second Report and Order and the ultimate conclusion that the introduction of lightguide submarine cable systems in the POR is in the public interest. The proposed system is required to satisfy the service preferences and needs of users. By interconnecting with optical fiber submarine cable systems previously authorized by the Commission, the G-P-T cable will also extend digital lightwave technology throughout the POR, permitting interconnection with a rapidly-developing global digital network, and thereby promote technological development and customer choice, intermodal and intramodal competition by supplementing existing cable capacity that is essentially saturated. [FN15] This will create incentives for more efficient operations by all facilities suppliers in the POR. It will also provide service quality benefits in terms of path diversity, media diversity, and restoration capability including satisfying DoD's needs for alternative routing arrangements. The proposed systems also meets international comity concerns, the needs of national security, and benefits the U.S. economy as a whole and promotes a leading role for U.S. industry in lightwave cable system technology.

18. Upon consideration of the application, we find that the present and future public interest, convenience and necessity require the construction and operation of the G-P-T cable system described herein.

19. Accordingly, IT IS ORDERED that the application be GRANTED, subject to the following terms, conditions, and limitations and the Applicants are authorized to:

- (a) construct and operate G-P-T cable system as proposed herein;
- (b) assign the capacity of the G-P-T cable system as set forth herein;
- (c) acquire transit facilities on a leased basis;

(d) utilize digital circuit multiplication systems to derive additional voice paths from the circuits (MAUOs) authorized herein in accordance with the appropriate Commission authorizations; and

(e) acquire connecting facilities between the Point Arena, California, Makaha, Hawaii, and Tanguisson, Guam cable stations and their respective operating offices in the United States and its territories.

20. IT IS FURTHER ORDERED, that when a given applicant seeks to acquire or transfer an ownership or IRU interest in G-P-T capacity, the reimbursement it receives shall be on the basis of depreciated original cost (or the pro rated accumulated cost of such circuit if the systems are not then operational) or in conformance with such policy as the Commission may develop in the future regarding the price at which IRUs will be made available.

21. IT IS FURTHER ORDERED, that the Applicants make available half-interests in the G-P-T capacity to such present and future U.S. carriers as may be authorized by the Commission to acquire such capacity.

*6 22. IT IS FURTHER ORDERED, that the Applicants shall make capacity in the G-P-T system available to non-carriers in conformance with the policies developed in CC Docket No. 83-1230. See [International Communication Policies, 104 FCC2d 208 \(1986\)](#).

23. IT IS FURTHER ORDERED, that the Commission retains jurisdiction to reallocate U.S. carriers' interests in capacity herein authorized, as the public interest may require to accommodate additional carriers or otherwise, with, where required, the concurrence of the foreign administration or carriers concerned, and, further, jurisdiction is retained by the Commission over all matters relating to the applicants' ownership, management, maintenance, and operation of the cable systems as authorized herein, to assure the most efficient use not only of these cable systems, but of all means of communications between the U.S. and the Pacific Ocean Region.

24. IT IS FURTHER ORDERED, that the Commission retains jurisdiction to review the DCMS, multiplexing, and interworking arrangements and attribution of the costs thereof and to require such changes in the provision of these services and equipment as may be necessary.

25. IT IS FURTHER ORDERED, that no Applicant, which is deemed a dominant carrier pursuant to the Commission's decision in CC Docket No. 85-107, herein shall dis-

pose of any interest in any G-P-T capacity it is authorized to acquire in any way without prior authorization by the Commission.

26. IT IS FURTHER ORDERED, that the Applicants shall include G-P-T facility use in the monthly Circuit Status Reports filed pursuant to the Commission's Orders. These reports shall be filed no later than the 20th day of each month providing the information for the preceding month.

27. IT IS FURTHER ORDERED, that this authorization is issued subject to the terms and conditions of any license issued to the Applicants herein under the act entitled "An Act relating to the landing and operation of submarine cables in the United States" ([47 U.S.C. Sections 34-39](#)), covering the subject submarine cable, and shall become effective upon the acceptance of the aforementioned license by all such parties.

28. This order is issued under Section 0.291 of the Commission's Rules and is effective upon release. Petition for reconsideration under Section 1.106 or applications for review under Section 1.115 of the rules may be filed within 30 days of the date of public notice of this order (See Section 1.4(b)(2)).

****5094** FEDERAL COMMUNICATIONS COMMISSION

Gerald Brock

Chief, Common Carrier Bureau

FN1 The Applicants in the present application include American Telephone and Telegraph Company (AT & T), GTE Hawaiian Telephone Company, Inc., (HTC), MCI International, Inc (MCII), RCA Global Communications, Inc. (RCA Globcom), TRT Telecommunications Corporation (TRT), US Sprint Communications Company (US Sprint), and WU World Communications Inc. (WU Worldcom). The original application, File No. I-T-C-85-219, had been filed by AT & T, GTE Sprint Communications Company, Incorporated (GTE Sprint), Hawaiian Telephone Company, ITT World Communications Inc. (ITT Worldcom), MCII, RCA Globcom, the Western Union Telegraph Company (WUTCO), and TRT. Since the grant of authority for the Hawaii-4/Transpacific-3 (HAW-4/TPC-3) and Guam-Philippines-2 (GP-2) cable systems, ITT Worldcom and WUTCO have changed their names to WU Worldcom, Hawaiian Telephone Company has changed its name to HTC and GTE Sprint has changed its name to US Sprint.

FN2 Memorandum Opinion, Order and Authorization, File No. I-T-C-85-219, Mimeo No. 1794 (released January 7, 1986).

FN3 Simplex Cable and Wire Company, as a major subcontractor to AT & T, will manufacture the optical fiber cable at the Simplex factory in Newington, New Hampshire.

FN4 A MAUO is defined in the CM & A as the minimum practical unit of ownership, allowing the use of 73,684.656 bits per second in each direction, i.e., 64,000 us-

able bits per second and the additional 9,684.656 bits per second required for multiplexing the 1890 such MAUO in the Basic System Module.

FN5 DCMS is not covered in the G-P-T CM & A and is not considered a part of the G-P-T cable system.

FN6 Deployment of the HAW-4/TPC-3 and G-P-T cable systems will necessitate resolution of the problem of interworking between the different digital standards of North America and the Pacific Ocean Region (POR). In order to permit the interconnection of these different national digital network, the hybrid digital hierarchy for international interworking, CCITT Recommendation G.802, will be employed. When required, the A law to Mu law conversion function will be performed in North America in accordance with CCITT Recommendation G.711.

FN7 Costs are comprised of \$159.6 million for fixed cost items to be provided under the Supply Contract and an estimated \$17 million for cost incurred items.

FN8 Pacific Planning, [102 FCC 2d 353, 355 \(1985\)](#) (hereinafter cited as Second Report and Order).

FN9 [Id. at 366](#).

FN10 See DoD comments in Pacific Telecom Cable, Inc., File No. I-S-C-L-86- 002, Mineo No. 2894 (released April 22, 1987).

FN11 The Applicants note that transfers of capacity among U.S. carriers will require subsequent authorization under Section 214 of the Communications Act. Thus, the manner in which the needs of additional United States International Service Carriers (USISCS) will be accommodated will be in accord with the then existing Commission policy and need not be addressed by the Commission at this time. This authority, and the Commission's reservation of the right to reallocate capacity, will permit the Commission to enforce its then-existing policy concerning the manner in which the needs of additional U.S. carriers may be met.

FN12 See C & MA para. 11(K).

FN13 See [Policy for the Distribution of United States International Carrier Circuits Among Available Facilities During the Post-1988 Period, 3 FCC Rcd 2156 \(1988\)](#).

FN14 See [Report and Order, 49 FCC 2d 1313, 1320 \(1974\)](#) (the laying of submarine cable and installation of additional cable over existing routes is not "major action").

FN15 With the exception of Australia-New Zealand-Canada Cable System (ANZCAN), the existing cable facilities between U.S. territory and foreign points are essentially saturated.

Attachment I

SCHEDULE D PAGE 1 OF 6

GUAM-PHILIPPINES OPTICAL FIBER

ASSIGNMENT OF MINIMUM ASSIGNABLE UNITS OF OWNERSHIP (MAUOS)

IN THE G-P-T CABLE SYSTEM

SUBSEGMENT B1

MAUOS ASSIGNED FOR JOINT USE

PARTIES	JTB	CWHK	CAPWIRE	ETPI	GMCR	PHILCOM	PLDT	TELECOMS	TOTAL
OTC	0	0	0	0	0	56	0	0	56
TELEGLOBE	3	0	0	1	0	0	18	7	29
DBP	4	0	0	1	0	0	12	0	17
KDD	7	0	0	2	5	84	0	30	128
KTA	2	0	1	0	1	6	0	0	10
TELEFONICA	0	0	0	0	0	0	8	0	8
BT PLC	15	0	0	0	0	0	12	30	57
AT & T	11	150	0	0	0	79	1135	60	1435
HTC	0	0	0	0	0	0	30	0	30
MCII	0	0	0	10	0	1	0	30	41
RCA GLOBCOM	0	0	0	0	0	29	0	2	31
TRT	0	0	2	0	0	0	0	1	3
US SPRINT	0	0	0	0	0	8	0	18	26
WU WORLDCOM	0	0	1	3	14	1	0	0	19
TOTAL	42	150	4	17	20	264	1215	178	1890

THE NOTIONAL CAPACITY OF SUBSEGMENT B1 IN
THE GUAM PHILIPPINES OPTICAL FIBER IS 1890

*7 **5096 Attachment I

SCHEDULE D PAGE 2 OF 6

PHILIPPINES TAIWAN OPTICAL FIBER

ASSIGNMENT OF MINIMUM ASSIGNABLE UNITS OF OWNERSHIP (MAUOS)

IN THE G-P-T CABLE SYSTEM

SUBSEGMENT B1

MAUOS ASSIGNED FOR JOINT USE

PARTIES	IIDC
JTB	12
CWHK	180
ETPI	74
GMCR	49
PHILCOM	74
PLDT	1471
TELECOMS	30
TOTAL	1890

THE NOTIONAL CAPACITY OF SUBSEGMENT B1 IN
THE PHILIPPINES-TAIWAN OPTICAL FIBER IS 1890

****5097** Attachment I

PCASCHEDULE D PAGE 3 OF 6

PCAGUAM-TAIWAN OPTICAL FIBER

ASSIGNMENT OF MINIMUM ASSIGNABLE UNITS OF OWNERSHIP (MAUOS)

IN THE G-P-T CABLE SYSTEM

SUBSEGMENT B2

MAUOS ASSIGNED FOR JOINT USE

PARTIES	ITDC
OIC	9
TELEGLOBE	18
DBP	30
KDD	180
KTA	30
TELEFONICA	10
BT PLC	30
AT & T	1408
HTC	31
MCII	31
RCA GLOBCOM	6
US SPRINT	94
WU WORLDCOM	13

TOTAL 1890

THE NOTIONAL CAPACITY OF SUBSEGMENT B2 IN
THE GUAM-TAIWAN OPTICAL FIBER IS 1890

****5098** Attachment I

SCHEDULE D PAGE 4 OF 6

GUAM-PHILIPPINES OPTICAL FIBER

ASSIGNMENT OF MINIMUM ASSIGNABLE UNITS OF OWNERSHIP (MAUOS)

IN THE G-P-T CABLE SYSTEM

SUBSEGMENT B2

MAUOS ASSIGNED FOR JOINT USE

PARTIES	JTB	CWHK	CAPWIRE	ETPI	GMCR	PHILCOM	PLDT	TELECOMS	TOTAL
OTC	0	0	0	0	0	56	0	0	56
TELEGLOBE	3	0	0	1	0	0	18	7	29
DBP	4	0	0	1	0	0	12	0	17
KDD	7	0	0	2	5	84	0	30	128
KTA	2	0	1	0	1	6	0	0	10
TELEFONICA	0	0	0	0	0	0	8	0	8
BT PLC	15	0	0	0	0	0	12	30	57
AT & T	11	150	0	0	0	79	1135	60	1435
HTC	0	0	0	0	0	0	30	0	30
MCII	0	0	0	10	0	1	0	30	41
RCA GLOBCOM	0	0	0	0	0	29	0	2	31
TRT	0	0	2	0	0	0	0	1	3
US SPRINT	0	0	0	0	0	8	0	18	26
WU WORLDCOM	0	0	1	3	14	1	0	0	19
TOTAL	42	150	4	17	20	264	1215	178	1890

***8** THE NOTIONAL CAPACITY OF SUBSEGMENT B2 IN
THE GUAM-PHILIPPINES OPTICAL FIBER IS 1890

****5099** Attachment I

SCHEDULE D PAGE 5 OF 6

GUAM-TAIWAN OPTICAL FIBER

ASSIGNMENT OF MINIMUM ASSIGNABLE UNITS OF OWNERSHIP (MAUOS)

IN THE G-P-I CABLE SYSTEM

SUBSEGMENT B3

MAUOS ASSIGNED FOR JOINT USE

PARTIES	IIDC
OTC	9
TELEGLOBE	18
DBP	30
KDD	180
KTA	30
TELEFONICA	10
BT PLC	30
AT & T	1408
HTC	31
MCII	31
RCA GLOBCOM	6
US SPRINT	94
WU WORLDCOM	13
TOTAL	1890

THE NOTIONAL CAPACITY OF SUBSEGMENT B3 IN
THE GUAM-TAIWAN OPTICAL FIBER IS 1890

****5100** Attachment I

SCHEDULE D PAGE 6 OF 6

PHILIPPINES-TAIWAN OPTICAL FIBER

ASSIGNMENT OF MINIMUM ASSIGNABLE UNITS OF OWNERSHIP (MAUOS)

IN THE G-P-T CABLE SYSTEM

SUBSEGMENT B3

MAUOS ASSIGNED FOR JOINT USE

PARTIES	ITDC
JTB	12
CWHK	180
ETPI	74
GMCR	49
PHILCOM	74
PLDT	1471
TELECOMS	30
TOTAL	1890

THE NOTIONAL CAPACITY OF SUBSEGMENT B3 IN
THE PHILIPPINES-TAIWAN OPTICAL FIBER IS 1890

****5101** Attachment II

VOTING INTERESTS

IN THE G-P-T CABLE SYSTEM [FN*]

PARTIES	VOTING INTEREST PERCENTAGE [FN**]
OTC	.80108
JTB	.54414
TELEGLOBE	.57540
DBP	.57139
CWHK	2.22426
KDD	3.74996
KTA	.48479
CAPWIRE	.04948
ETPI	.36187
GMCR	.34777
PHILCOM	3.41739
PLDT	18.04312
TELECOMS	2.26340
TELEFONICA	.21933
ITDC	26.61971
BT PLC	1.06621
AT & T	34.69878

HTC	.74424
MCII	.88032
RCA GLOBCOM	.45570
TRT	.03711
US SPRINT	1.45304
WU WORLDCOM	.39151
TOTAL	100.00000

1988 WL 488304 (F.C.C.), 3 F.C.C.R. 5091, 3 FCC Rcd. 5091

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