## Exhibit 1

AT&T Corp. ("AT&T") is planning to offer a new Experimental Mobile Service using C-band frequencies via INTELSAT Satellites in the Atlantic Ocean Region (AOR) to and from ships at sea for Voice, Fax, Data and Video Transmission.

The elements of the proposed experimentation will include:

- (1) 2.0 meter C-band U.S. registered ship antennas authorized under CFR 47 part 5
- (2) Onshore Earth Station owned by AT&T in Roaring Creek, Pennsylvania
- (3) Space Segment to be leased by AT&T from Comsat World Systems
- (4) Terrestrial Connection to the public switched telephone network
- (5) Satellites INTELSAT V, VI, and VII series in the AOR and POR

The objectives of the experimentation will be to:

- (1) Determine the ability of enhanced gyroscope stabilizing mechanisms used to stabilize 2.0 meter C-band Antennas for use on seagoing vessels that can qualify for certification under INTELSAT standards
- (2) Determine if there is C-band interference
- (3) To analyze AT&T's role in providing two-way space segment
- (4) Access service quality using C-band frequencies in a maritime environment
- (5) Evaluate calling patterns to obtain valid information

AT&T's program of experimentation will foster the development of a new service and contribute valuable information on the use of Fixed Space Satellite (FSS) frequencies in the maritime environment used in conjunction with Shipboard Earth Stations.

### This authorization supersedes all previous international authorizations issued under Call Sign WA-33

### United States of America

#### FEDERAL COMMUNICATIONS COMMISSION

#### Radio Station License

International Fixed Satellite (Nature of Service)

WA-33 (Call Sign)

Fixed Earth Station (Class of Station)

CSG-94-182-ML (File No.)

Licensee: American Telephone and Telegraph Company

295 North Maple Avenue

Room #1136K3

Basking Ridge, NJ 07920

Subject to the provisions of the Communications Act of 1934, as amended, the Communications Satellite Act of 1962, as amended, subsequent acts and treaties, and all present and future regulations made by this Commission, and further subject to the conditions and requirements set forth in this license, the grantee is authorized to construct, use and operate the radio facilities described below for radio communications for the term beginning <u>December 28. 1994</u> (3 a.m. eastern standard time) and ending June 4, 2002 (3 a.m. eastern standard time).

Roaring Creek 1 RD #3, Box 49, Roaring Creek (Columbia County) Pennsylvania (Location of Station)

40° 53' 37.5" North Latitude - 76° 26' 21.8" West Longitude (Geographical Coordinates of Station Site NAD-27 datum)

#### 1. PARTICULARS OF OPERATION

Range of azimuths of center of main lobe of radiation with respect to true north:

Range of elevation angles (E/W):

Range of satellite longitudes:

4.6 - 148.2 degrees West Maximum radiation density

Maximum radiation density transmitted toward the horizon:

+ 20.0 dBW/4kHz

Frequency (GHz)	Emissions	Maximum E.I.R.P./ Carrier	Maximum E.I.R.P. Density	Special Provisions
*5.850-6.425	18M0F8W- 36M0F8W	85.4 dBW	61.4 dBW/4kHz	1,2 (TV)
	1M13F8W- 36M0F8W	71.7 dBW 87.9 dBW	50.1 dBW/4kHz 50.6 dBW/4kHz	1,3 (FDM)
·	30M7G7W	77.0 dBW	38.2 dBW/4kHz	1,4 (Cable)
	66MBG7W	81.2 dBW	39.0 dBW/4kHz	1,5 (Cable)
	72M0G7W	84.8 dBW	42.2 dBW/4kHz	1,6 (TDMA)
	307KG7W	55.7 dBW	36.9 dBW/4kHz	1,6 (TDMA)
	614KG7W	55.7 dBW	33.8 dBW/4kHz	1,6 (TDMA)
	1M23G7W	55.7 dBW	30.8 dBW/4kHz	1,6 (TDMA)
	38K4G7W	66.5 dBW	56.7 dBW/4kHz	1,7 (SCPC)
	54K6G7W-	67.5 dBW-	56.1 dBW/4kHz-	1,8 (IDR)
	6M84G7W	85.9 dBW	53.6 dBW/4kHz	1,8 (IDR)
	81K9G7W-	68.0 dBW-	54.9 dBW/4kHz-	1,9 (IBS)
	11M2G7W	88.6 dBW	54.1 dBW/4kHz	1,9 (IBS)
	54K6G7W-	69.6 dBW-	58.2 dBW/4kHz-	1,10 (IBS)
	7M44G7W	90.1 dBW	57.4 dBW/4kHz	1,10 (IBS)

103.77 dBW total for all carriers

\* The extended C-band frequencies 5850-5925 MHz and 3625-3700 MHz have been cleared with the National Telecommunications & Information Administration on 12-5-94.

#### 2. POINTS OF COMMUNICATION

(a.) The following space stations located in the geostationary orbit:

Atlantic Ocean Region satellites of the INTELSAT system located in the arc from 4.6 to 148.2 degrees West Longitude.

(b.) The earth stations listed in Comsat's international tariff provisions for the space segment components of international television with associated audio, IBS and related digital video services, international message telephone service (IMTS) (switched services) using FDM, SCPC, TDMA and IDR. This earth station will be used to provide cable restoration for the existing TCS-1 and TAT-8/9 cables. All services shall be on a common carrier basis and in accordance with the Licensee's appropriate Section 214 authorizations.

#### 3. TRANSMITTING EQUIPMENT

#### Number and Type

Antenna: 32-meter Toronto Iron Works with Cassegrain feed.

The antenna sidelobe emission pattern meets the requirements of Section 25.209 of FCC Rules and Regulations as amended for 2° spacing.

<u>Transmitter(s)</u> :	Maximum Rated Output Power	Tolerance	Special <u>Provisions</u>
*(22) Varian Model VZJ2700H (14 spares)	3000 Watts each	0.001% or better	1 to 10
(4) AYDIN Model 798A (2 spares)	3000 Watts each		
	(9487 Watts maximum at the antenna flange)		

\* These transmitters are shared with co-located earth stations Call Sign KA-444, KA-445 and KA-446.

#### 4. ANTENNA FACILITIES

#### Communications antenna

Type: 32-meter Toronto Iron Works with Cassegrain feed.

Intelsat Standard A.

Frequency Range (Transmit): 5.850 - 6.425 GHz

(Receive): 3.625 - 4.200 GHz

Antenna Gains: Tx: 64.0 dBi at 6.0 GHz

Rx: 60.3 dBi at 4.0 GHz

Beamwidth: Tx: 3dB/15 dB: 0.09/0.42 degree at 6 GHz

Rx: 3dB/15 dB: 0.14/0.62 degree at 4 GHz

Site elevation: 971 feet/ 296.04 meters (AMSL)

Antenna Centerline Height: 75.0 feet/ 22.87 meters (AGL)

1046 feet/318.90 meters (AMSL)

Maximum Antenna Height: 128.5 feet/ 39.18 meters (AGL)

1099.5 feet/335.21 meters (AMSL)

Receiving System

Noise Temperature: 95 K at an antenna elevation angle of 10

degrees at a frequency of 4.0 GHz

Gain to Noise

Temperature (system): 40.52 dB/K at an antenna elevation

angle of 10 degrees at a frequency of

4.0 GHz

Polarization: Circular, transmit and receive.

#### 5. SPECIAL PROVISIONS FOR LICENSE

- 1. Subject to the reporting requirement set forth in General Provision C below, authority is granted to transmit any number of RF carriers with the specified parameters on any discrete frequencies within these bands, subject to any additional limitations that may be required to avoid unacceptable levels of inter-satellite interference.
- 2. Television with associated audio.
- 3. FDM/FM (frequency division multiplex/frequency modulation) 12 through 972-FM Modulation. International Message Telephone Service (IMTS) (switched service).
- 4. TCS-1 Cable restoration, 45 Mb/s, QPSK, 7/8 FEC.
- 5. TAT-8/9 Cable restoration, 140 Mb/s, 8PSK, 5/6 FEC.
- 6. TDMA (Time Division Multiple Access) 120 Mb/s, QPSK, 7/8 FEC and 128kb/s to 512kb/s, BPSK, 1/2 FEC (IMTS) (switched service).
- 7. SCPC (single-channel-per-carrier) 56 kb/s, QPSK, 7/8 FEC (IMTS) (switched service).
- 8. IDR (intermediate data rate), 64 kb/s to 8448 kb/s, QPSK, 3/4 FEC, using QPSK modulation or other digital type (IMTS) (switched service).
- 9. IBS (Intelsat business service and related digital video), 64 kb/s to 8448 kb/s, QPSK, 1/2 FEC.
- 10. IBS, 64 kb/s to 8448 kb/s, QPSK, 3/4 FEC.

### 6. GENERAL PROVISIONS FOR LICENSE

- A. The hours of operation of this station are not limited.
- B. The nominal E.I.R.P.'s specified in Section 1 of this license are for clear sky conditions and an earth station antenna elevation angle of 10 degrees. Actual values may be higher or lower depending upon operational requirements and local weather conditions. Maximum powers specified may not be exceeded.

## 6. GENERAL PROVISIONS FOR LICENSE (cont.)

- C. The Licensee(s) shall maintain on file with the Commission a current list or plan of the precise frequencies in use at the station, specifying for each frequency the RF center frequency, polarization, emission designator, nominal E.I.R.P. (in dBW) and maximum E.I.R.P. density (in dBW/4kHz). This list or plan may be submitted either on a station-by-station basis or on a system-wide basis and shall be updated within seven (7) days of any changes in frequency usage at this station. The Licensee(s) need not notify the Commission of temporary usage of frequencies for periods less than seven (7) days. However, the Licensee(s) shall maintain accurate station records of the times and particulars of such temporary frequency usage.
- D. In the event of the failure of a satellite with which operations are authorized in Section 2(a) of this license, operations are authorized in conjunction with any INTELSAT satellite in the affected Ocean Region that provides any authorized services herein in order to maintain the continuity of commercial service; provided that the Licensee(s) immediately notify the Commission of the nature of this emergency and its expected duration; and provided that the operational limits of elevation angle and azimuth range specified in Section 1 of this license are not exceeded. In the event that such emergency operations require emissions not specified in Section 1 of this license, such emissions may be utilized provided that the E.I.R.P.'s of such emissions do not exceed the limits set forth in this license.
- E. The authority granted here is limited to the operation of the facilities described above and does not include any authority to install and operate channelizing equipment or any other authority under Section 214 of the Communications Act of 1934, as amended, to establish channels of communication.
- F. With respect to potential co-channel interference to or from terrestrial microwave radio stations, the transmit and receive frequency bands listed in this license have been cleared for transmissions to and from satellites located in the geostationary orbit for the emissions designated in Section 1 of this license.
- G. Upon completion of the station, the Licensee(s) shall certify in writing to the Commission that all terms, conditions, obligations and technical parameters set forth in the Commission's authorization and in this license have been fully met. A copy of the certification shall be sent to the Engineer-in-Charge of the Field Office responsible for the radio district in which the station is located. Call Enforcement Division of Field Operations Bureau at (202) 418-1150 if you cannot determine your district.

### 6. GENERAL PROVISIONS FOR LICENSE (cont.)

- H. Obstruction marking and lighting specifications are required in accordance with the following paragraphs of FCC Form 715: None.
- I. Operation of this station is governed by the terms, conditions and limitations in Part 25 of the Commission's Rules and Regulations and the following additional conditions:
  - 1. This license shall not vest in the Licensee(s) any right to operate the station or any right in the use of the frequencies designated in the license beyond its term or in any other manner than authorized in the license;
  - 2. Neither the license nor the right granted under it shall be assigned or otherwise transferred in violation of the Communications Act of 1934, as amended, or the Commission's Rules and Regulations issued under it; and
  - 3. This station is subject to the right of use or control conferred by Section 706 of the Communications Act of 1934, as amended.
- J. This license shall be forfeited automatically if this station is not ready for operation within the time specified below unless, prior to the date of required completion of construction, the Commission receives an Application for Additional Time to Construct a Radio Station (FCC Form 701) filed by the Licensee(s) showing good cause why the Licensee(s) could not complete construction on time.
- K. This authorization is not to be construed as permitting the provision of any service between earth station locations within the United States.
- L. All operations shall be on a common carrier basis.
- M. The date of required completion of modification is <u>December</u> 28, 1995.

Dated: December 28, 1994

FEDERAL COMMUNICATIONS COMMISSION Washington, D.C. 20554





James A. McCullough
District Manager - Facilities
Federal Government Affairs

Room 1139L1 295 North Maple Avenue Basking Ridge, NJ 07920 908 221-6957 FAX 908 221-4593

April 25, 1995

Mr. William F. Caton, Acting Secretary Federal Communications Commission 1919 M Street, Room 222 Washington, D.C. 20554

Attn: Experimental Radio Service

Re: Application for experimental authority pursuant to Section 5 of the Commission's Rules. (Salt Creek, California)

Dear Mr. Caton:

AT&T Corp. ("AT&T") in accordance with CFR 47, Sections 5.51, 5.52, 5.54, and 5.55 of the Commission's Rules requests experimental authority to transmit data, voice, fax, and video transmission using the INTELSAT Satellites in the Pacific Ocean Region (POR) to and from seagoing vessels using C-band earth stations.

The Public Interest will be served by fostering the development of new maritime services using C-band earth station technology aboard ships.

The experiment will entail the use of a land based earth station at Salt Creek, CA (Call Sign KA-373) in conjunction with leased space segments in the POR provided by COMSAT World Systems initially using two vessels, one a cruise ship and the other a naval vessel.

A petition for rule-making to amend CFR 47, Part 80 of the Commission's Rules to permit the use of C-band frequencies by shipbound earth stations is pending before the Commission.

AT&T intends to charge for the use of the INTELSAT space segment in connection with this proposed experimental authorization and will file a tariff with the Commission.



## **Frequency Coordination**

Frequency Coordination is not required pursuant to Part 25 of the Rules. AT&T and its customers understand that all experimentation must be conducted on a non-interference basis, and in the unlikely event that harmful interference occurs, transmissions will cease immediately.

## **Environmental Consideration**

A grant of this application will not have a environmental impact within Section 1.1307 of the FCC rules.

# Legal, Financial and Technical Qualifications

AT&T's legal, financial and technical qualifications to be a satellite earth station licensee have previously been documented in AT&T's march 1973 amended application for a domestic communications satellite system, which was granted by the Commission in AT&T, 42 F.C.C. 2d 645 (1973). FCC Form 430, Licensee Qualifications Report, was filed with the Commission on March 31, 1995.

### **FAA Notification**

FAA notification is not required pursuant to part 17 of the Rules.

#### Waiver, Section 304

As required by Section 304 of the Communications Act, AT&T waives any claim to the use of any particular frequency or of the electromagnetic spectrum as against the regulatory power of the United States because of the previous use of the same, whether by license or otherwise.

Please address any questions concerning this application to:

AT&T Corp.
Mr. Stanley Edinger - Manager
Federal Government Affairs
295 North Maple Avenue Room 1136K3
Basking Ridge, New Jersey 07920
Telephone: (908) 221-3064

Sincerely,

James A. McCullough

Attachments: FCC Filing Fee \$45.00

FCC Form 159 FCC Form 442 Exhibits 1 and 2

Copy to: Mr. Franklin Wright (FCC) Washington, D.C.