

## 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 Pacific Ocean Region (POR) 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 *(not included in this application)\**
- (2) Onshore Earth Station owned by AT&T in Salt Creek, CA
- (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.

\* 6/7 phone conversation w/ S. Edinger regarding IB's question about antenna gain... This application is for the earth station, NOT for the 2.0m ship antennas. Apparently, the entity which has that antenna will get an experimental for it...

This authorization supersedes the authority issued  
under File No. CSG-90-052-P/L dated May 27, 1993

United States of America  
FEDERAL COMMUNICATIONS COMMISSION  
Radio Station License

International  
Fixed Satellite  
(Nature of Service)

KA-373  
(Call Sign)

Fixed Earth Station  
(Class of Station)

CSG-94-195-ML  
(File No.)

Licensee: American Telephone and Telegraph Company  
295 North Maple Avenue  
Room #1136K3  
Basking Ridge, New Jersey 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 November 14, 1994 (3 a.m. eastern standard time) and ending January 14, 2001 (3 a.m. eastern standard time).

5865 Sills Road  
Salt Creek (Colusa County) California SCK 2A  
(Location of Station)

38° 56' 22.3" North Latitude - 122° 08' 49.6" 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 : 103.0 - 253.0 degrees

Range of elevation angles (E/W) : 7.0 - 14.0 degrees

Range of satellite longitudes : 53.0 - 186.0 degrees West

Maximum radiation density transmitted toward the horizon : + 3.2 dBW/4kHz

<u>Frequency (MHz)</u>	<u>Emissions</u>	<u>Maximum E.I.R.P. Per Carrier</u>	<u>Maximum E.I.R.P. Density</u>	<u>Special Provisions</u>
5925 - 6425	70K4G7W to 32M9G7W	83.0 dBW	49.0 dBW/4kHz	1,2,3 (IDR)
	54K6G7W	66.00 dBW	49.0 dBW/4kHz	1,4 (IBS)
	81K9G7W	64.00 dBW	49.0 dBW/4kHz	1,4 (IBS)
	35M9G7W	79.80 dBW	40.3 dBW/4kHz	1,2

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90.78 dBW total  
all carriers

**2. POINTS OF COMMUNICATION**

- (a.) The following space stations located in the geostationary orbit: Atlantic Ocean Region (AOR) and Pacific Ocean Region (POR) satellites of the INTELSAT system located in the arc from 53 to 186 degrees West Longitude.
- (b.) Earth stations in those countries listed in Comsat's international tariff provisions for the space segment components of IDR international message telephone service (IMTS) for cable restoration and INTELSAT Business Service (IBS) and related digital video service. 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: 18.3-meter Vertex Model KPC-4 with Cassegrain Optics.  
INTELSAT Revised Standard A.

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>	<u>Maximum Rated Output Power</u>	<u>Tolerance</u>	<u>Special Provisions</u>
(12) Siemens Model N1120	3000 watts each (1200 watts total at antenna flange)	0.001% or better	1,2,3,4

These high powered amplifiers are shared with co-located earth stations Call Signs KA-371 and KA-372.

**4. ANTENNA FACILITIES**

Communications antenna

Type: 18.3-meter Vertex Model KPC-4 with Cassegrain Optics.

Frequency Range (Transmit): 5925-6425 MHz  
(Receive) : 3700-4200 MHz

Antenna Gains: Tx: 60.0 dBi at 6.0 GHz  
Rx: 56.3 dBi at 4.0 GHz

Beamwidth: Tx: 3 dB/15 dB: 0.17/0.36 degree at 6.0 GHz  
Rx: 3 dB/15 dB: 0.26/0.55 degree at 4.0 GHz

Site Elevation: 580 feet/ 176.78 meters (AMSL)

Maximum Antenna Height: 70 feet/ 21.34 meters (AGL)  
650 feet/ 198.12 meters (AMSL)

Antenna Centerline Height: 35 feet/ 10.67 meters (AGL)  
615 feet/ 187.45 meters (AMSL)

Receiving System

Noise Temperature: 119.4 K at an antenna elevation angle of  
5 degrees at a frequency of 4.0 GHz

Gain to Noise

Temperature (system): 35.53 dB/K at an antenna elevation angle of  
5 degrees at a frequency of 4.0 GHz

Polarization: Circular, transmit and receive

**5. SPECIAL PROVISION FOR LICENSE**

1. Subject to the reporting requirement set forth in General Provision D 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. Intermediate Data Rate (IDR) for cable restoration.  
(on a common carrier basis)
3. Intermediate Data Rate (IDR) Switched Message Service and Private Line Service. (on a common carrier basis)
4. INTELSAT Business Service (IBS), 64KB/s 1/2 or 3/4 FEC digital modulation QPSK or other digital type. (on a common carrier basis)

**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.
- C. 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 the services authorized herein in order to maintain the continuity of 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.

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

- D. 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.
- 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) must file with the Commission a certification including the following information: The name of the Licensee, file number of the application, call sign of the antenna, date of the license, a certification that the facility as authorized has been completed, that each antenna facility has been tested and is within 2 dB of the pattern specified in Section 25.209, and that the station is operational including the date of commencement of service, and will remain operational during the license period unless the license is submitted for cancellation. 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.
- H. Obstruction marking and lighting specifications are required in accordance with the following paragraphs of FCC Form 715: None.
- I. All operations shall be on a common carrier basis.

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

- J. 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.
- K. This license shall be forfeited automatically if this station is not ready for operation within the time specified below unless, prior to the expiration date of this license, 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.
- L. This authorization is not to be construed as permitting the provision of any service between earth station locations within the United States.
- M. The date of required completion of modification is November 14, 1995.

Date: November 14, 1994

FEDERAL COMMUNICATIONS COMMISSION  
Washington, D.C. 20554





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 December 28, 1995.

Dated: December 28, 1994

FEDERAL COMMUNICATIONS COMMISSION  
Washington, D.C. 20554

