#### Exhibit 1

The proposed research program will collect propagation data at S-band which will be used in the development of the next generation mobile satellite communications systems. In particular, it is desired to obtain propagation data to be used to improve performance in vehicles and buildings. In order to evaluate the impact of such a requirement, a good understanding of the propagation environment at S-band is essential.

The propagation data will be obtained by installing transmitting equipment on an aircraft which will fly overhead a number of receivers in various locations on the ground to simulate the environment of a satellite communications system. Factors such as elevation angle and fading environment can be experienced. A horn antenna will be mounted on the underside of the aircraft fuselage and will have the ability to remain pointed at the receiving location on the ground throughout the experiment.

A large propagation database was collected in support of the Iridium system to define the propagation environment at L-band. Much of the L-band data can be scaled to S-band to provide preliminary results. There are, however, areas in the database where little data exists. The data collected in the proposed experiment will enable the validation of the scaling of L-band data to S-band and in addition, will obtain additional S-band data as necessary to complete the database.

# **ATTACHMENT 1**

# Before the FEDERAL COMMUNICATIONS COMMISSION Washington, DC 20554

In the Matter of		
Motorola Satellite Communications, Inc.	File No.	
Application for Special Temporary  Authority to Conduct Radio Propagation  )		
Tests over Additional Frequencies )		

#### EXPEDITED CONSIDERATION REQUESTED

### REQUEST FOR SPECIAL TEMPORARY AUTHORITY

Pursuant to Section 309(f) of the Communications Act of 1934, as amended, 47

U.S.C. § 309(f), Motorola Satellite Communications, Inc. ("Motorola") hereby requests Special

Temporary Authority ("STA") to conduct radio propagation tests in Prescott, Arizona, beginning no later than September 4, 1998, for a period of 180 days, over the following frequencies: 1990-2015

MHz, 2160-2160.01 MHz, 2165-2181 MHz, 2185-2190 MHz and 2199.99-2200 MHz.

Motorola is currently conducting radio propagation experiments in Prescott, Arizona over 1990-2011 MHz, 2169-2177 MHz, and 2196-2198 MHz pursuant to an experimental license (Call Sign No. WA2XRQ). See Public Notice, Report No. 312, Experimental Actions (rel. July 21, 1998).

Motorola will soon file a request to modify that experimental license to include the additional frequencies requested herein.

#### I. BACKGROUND

On April 2, 1998, Motorola requested an experimental license to collect propagation data in the 2 GHz band for use in the development of next generation mobile satellite communication systems. On April 22, 1998, a correction copy of that application was filed. *See* Attachment A (both requests). On May 14, 1998, Motorola amended its application to narrow the geographic scope of the relevant testing region to Prescott, Arizona. *See* Attachment B. At that time, Motorola provided the Commission with technical information sufficient to demonstrate that Motorola would not cause harmful interference to any authorized user of the spectrum in its requested frequencies -- 1990-2011 MHz, 2169-2177 MHz and 2196-2198 MHz. In fact, Motorola supplied technical information sufficient to demonstrate that its testing would not cause harmful interference in any of the following frequencies: 1990-2025 MHz, 2160-2200 MHz. *See id.* Motorola is currently conducting radio propagation experiments pursuant to Commission authority authorizing such tests in and around Prescott, Arizona over 1990-2011 MHz, 2169-2177 MHz and 2196-2198 MHz.

Motorola now seeks Special Temporary Authority, beginning no later than September 4, 1998, to conduct its testing program in and around Prescott, Arizona operation over the following frequencies: 1990-2015 MHz, 2160-2160.01 MHz, 2165-2181 MHz, 2185-2190 MHz and 2199.99-2200 MHz. A graphical representation of the requested frequencies is attached as Attachment C.

II. GRANT OF MOTOROLA'S REQUEST FOR SPECIAL TEMPORARY AUTHORITY WILL NOT CAUSE ANY HARMFUL INTERFERENCE TO EXISTING USERS AND WILL SERVE THE PUBLIC INTEREST

The Commission has a long-standing policy of granting Special Temporary

Authority for purposes of conducting tests where such authorization will not cause harmful

Interference and will serve the public interest, convenience and necessity. See, e.g., In the Matter of Newcomb Communications, Inc., 8 FCC Red. 3631, 3633 (1993); In the Matter of Columbia Communications Corporation, 11 FCC Red. 8639, 8640 (1996); In the Matter of American Telephone & Telegraph Company, 8 FCC Red. 8742, 8742 (1993). As discussed above, Motorola has previously demonstrated that its testing over the requested frequencies will not cause harmful interference to any authorized user of the spectrum. See also Attachment B. Moreover, grant of the instant STA will serve the public interest as it will enable Motorola to continue conducting experiments -- over a broader range of frequencies -- to collect propagation data to be used in the development of next generation mobile satellite communications systems.

#### III. EXPEDITED ACTION REQUESTED

Motorola seeks Commission Special Temporary Authorization by Friday, September 4, 1998, because it needs to begin these tests by Monday, September 7, 1998. Motorola is under commitment to complete all propagation experiments by the end of 1998. Current weather conditions in Prescott, Arizona make it imperative that Motorola begins testing immediately. Inclement winter weather in Prescott – exacerbated by its altitude – creates the potential for loss of flight days and testing data. Moreover, to remain on schedule, Motorola has designated a large number of its personnel to participate in these tests and those persons will be available by September 4, 1998, to load, examine and route the necessary testing equipment.

#### IV. SECTION 304 WAIVER

In accordance with Section 304 of the Communications Act of 1934, 47 U.S.C. § 304, Motorola hereby waives any claim to the use of any particular frequency or of the electromagnetic spectrum because of the previous use of the same, whether by license or otherwise.

## V. CONCLUSION

For the foregoing reasons, Motorola requests Special Temporary Authority to conduct radio propagation experiments in Prescott, Arizona, for a period of 180 days, over the following frequencies: 1990-2015 MHz, 2160-2160.01 MHz, 2165-2181 MHz, 2185-2190 MHz and 2199.99-2200 MHz. Motorola respectfully requests Commission action no later than September 4, 1998.

# Respectfully submitted,

Motorola Satellite Communications, Inc.

By:

David R. Carroll

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Motorola Satellite Communications, Inc.

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Dated: August \_\_\_\_\_\_, 1998

#### ANTI-DRUG ABUSE CERTIFICATION

Pursuant to Section 1.2002 of the Commission's Rules, 47 C.F.R. § 1.2002 (1997), Applicant certifies that neither Applicant nor any of their shareholders, nor any of their officers or directors, nor any party to this Application are subject to a denial of Federal benefits pursuant to authority granted in Section 5301 of the Anti-Drug Abuse Act of 1988.

Respectfully submitted,

Motorola Satellite Communications, Inc.

Bv:

David R. Carroll

Manager, Spectrum Technology

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Dated: August \_\_21\_\_, 1998