

AMSAT®

Radio Amateur Satellite Corporation

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October 22, 1999

Federal Communications Commission
Chief, Experimental Licensing Branch
New Technology Development Division
Office of Engineering Technology
Attention: James Burtle
445 12th St. S.W.
Washington, DC 20554

Dear Sir:

The Radio Amateur Satellite Corporation (AMSAT) wishes to place before you certain facts regarding a request by the County of Los Angeles (California) for experimental authority to operate airborne television transmitting equipment in the 2.4 GHz band.

AMSAT, a not-for-profit District of Columbia corporation established in 1969, is the principal membership organization of the Amateur Radio satellite community in North America with approximately six thousand members. Together with over thirty of our affiliated organizations throughout the world, we have constructed, launched and operated over two dozen satellites to date in the Amateur Satellite Service, of which many are presently in operation. These currently operational spacecraft include a high-altitude, Molniya-type orbit transponder satellite capable of sustaining two-way communication over terrestrial paths well in excess of 10,000 miles (AMSAT-OSCAR 10), numerous low-earth-orbit (LEO) digital store-and-forward packet radio satellites, scientific and educational payload satellites, LEO analog transponder satellites, and several spacecraft featuring combinations of these types of payloads. Some of these existing satellites are equipped with transmitters operating in the 2.4 GHz band.

In addition, AMSAT has completed, at a financial cost to its members and other contributors of about THREE MILLION DOLLARS, and many man-hours of volunteer labor, a spacecraft which has two transmitters operating in the 2.4 GHz band at power levels of 50 Watts. One transmitter feeds an antenna with a gain in the order of 20 dBi. The other transmitter employs an antenna with a gain of about 8 dBi. In addition, this satellite contains two receivers operating in the 2.4 GHz band, either of which can be used with the higher gain antenna. This spacecraft, which we call Phase 3D, is slated to go into an elliptical Molniya orbit similar to that of AMSAT-OSCAR 10.

Phase 3D has recently been accepted for launch by ArianeSpace aboard an Ariane 5 launch vehicle sometime in the coming year. It is to be shipped in the next few weeks to Kourou, French Guiana in preparation for that launch.

AMSAT views with the greatest concern the experimental TV operation proposed by the County of Los Angeles. Even if it were to be confined to the Los Angeles area, it would pose a serious threat to many of our members and other licensed radio amateurs residing in that area, potentially limiting their use of this new satellite which is intended for the free use of licensed amateurs throughout the world.

However, our concern transcends this specific request for experimental authority by the County of Los Angeles. Frequently, experimental operations, which prove successful and viable, are converted into widespread permanent commercial or other, use. This could very well happen in this case, with similar airborne television transmissions taking place in many cities across the country.

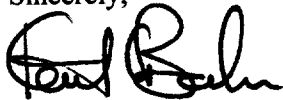
AMSAT points out that the Commission, on February 17, 1995, released an order in ET Docket No. 94-32, in which it allocated the frequencies 2390 MHz - 2400 MHz and 2402 MHz - 2417 MHz to the Amateur Service on a PRIMARY basis and retained secondary amateur status on 2300 MHz - 2310 MHz, 2400 MHz - 2402 MHz and 2417 MHz - 2450 MHz. Sharing some of these frequencies are low power Part 15 devices, including computer LANs, cordless telephones and ISM; the principal ISM users being microwave ovens.

In its discussion in connection with the above Report and Order, the Commission specifically rejected various proposals for the use of the 2402 MHz - 2450 MHz band which it said would not be compatible with either current Part 15 users or with ISM. It would appear that the same situation now applies to the intended use by the County of Los Angeles.

Therefore, because of the potentially serious interference it poses to the users of current amateur satellites and especially to those who will be using the new spacecraft to be launched soon, AMSAT urges that the request for experimental authority requested by the County of Los Angeles to operate an airborne television system be rejected. Further, AMSAT believes that any such grant would violate the spirit of Commission's own order granting amateurs PRIMARY status on much of the band in question and could well disrupt amateur satellite and other amateur use of the band as well as jeopardizing its use by other existing occupants.

We appreciate your serious consideration of our position in this matter.

Sincerely,

A handwritten signature in black ink, appearing to read "Keith Baker", written over a horizontal line.

Keith Baker, KB1SF
President

cy to: ARRL