Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554

In the Matter of:

Inquiry Regarding Carrier Current	**)**	
Systems, including Broadband over	**)**	**ET Docket 03-104**
Power Line Systems	**)**	

To: The Commission

REPLY COMMENTS OF THE RADIO AMATEUR SATELLITE CORPORATION

The Radio Amateur Satellite Corporation (AMSAT®) hereby respectfully submits its reply to the comments filed in response to the *Notice of Inquiry* (the *"NOI"*) issued by the Commission in the above-captioned proceeding.

1. As we also pointed out in our Comments, Ray Soifer ("Soifer") notes in his Comments that two amateur radio satellites currently in operation, our own AMSAT-OSCAR 7 and the Russian satellite RS-15, employ linear communications transponders with downlinks in the 28.0-29.7 MHz amateur radio band. He calculates that a typical downlink signal level from AMSAT-OSCAR 7 would be approximately 35 dB weaker than potential interference from BPL emitters, if the present emissions limit of 30 microvolts per meter at 30 meters were allowed.

2. Soifer also notes that two Russian amateur radio satellites, RS-10/11 and RS-12/13, have also carried communication uplinks in the 21 MHz band. Since their footprints in orbit were roughly circular areas more than 3,000 kilometers in radius from the sub-satellite point, the cumulative impact of millions of BPL devices would have produced very harmful interference to these uplinks, which would have been retransmitted on the satellite downlinks and extended far beyond U.S. national boundaries.

3. AMSAT concurs with Soifer's conclusions. Our AMSAT-OSCAR-E satellite that we presently have under construction for expected launch in 2004 will fly a multi-mode uplink receiver in the 28-29.7 MHz band. Interference from a large number of BPL emitters on the ground could well render this uplink unusable.

4. With respect to downlinks, Soifer and Bruce Paige ("Paige") both observe that to assume a distance of 30 meters (approximately 98 feet) between the BPL emitter and the amateur station's receiving antenna would frequently be erroneous. In Paige's case, this distance is only about 10 feet, and the strength of BPL interference would be considerably greater.

5. The Central States VHF Society ("CSVHFS") points out that harmful interference from BPL would likely extend well above the actual frequencies employed for this purpose, due to the generation and radiation of harmonics well into the UHF and even microwave bands. AMSAT is extremely concerned about the effects of this interference on the very weak downlink signals from amateur radio satellites in the 144-146, 435-438, 2400-2450 MHz and higher amateur-satellite service bands.

6. In view of these concerns, and others expressed in our original Comments, AMSAT agrees with ARRL, the National Association for Amateur Radio ("ARRL"), that BPL is a Pandora’s Box of unprecedented proportions. Once deployed, the consumer’s expectations will be such as to preclude termination of the service, and interference problems, both to and from BPL, will inevitably be both widespread and impossible as a practical matter to rectify. The amateur and amateur-satellite services cannot be protected from interference from BPL, and BPL cannot be protected from interference from HF and VHF amateur radio stations. The rules must insure that BPL is not permitted to operate in or near any amateur radio allocation, and if BPL is permitted at all, any changes in amateur radio allocations must immediately trigger retroactive

modifications to BPL facilities to delete any use of amateur radio frequencies. In addition, spurious emissions from BPL facilities must be substantially attenuated below current Part 15 spurious emission levels.

Therefore, the foregoing considered, AMSAT joins ARRL in respectfully requesting that the Commission take no steps to permit access or in-building BPL at HF or VHF at this time.

RESPECTFULLY SUBMITTED,

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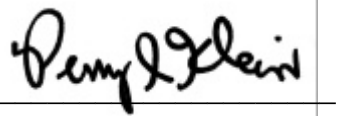
By 

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August 20, 2003

Copies served to Soifer, CSVHFS (Owen Wormser), Paige and ARRL (Chris Imlay)