

Experimental License Request -- Description of research to be conducted

The Cal Poly Picosatellite Project at California Polytechnic State University San Luis Obispo requests experimental frequency privileges for its CP1 satellite which is scheduled to launch in Spring of 2004. The mission of the satellite is to investigate miniaturized satellite systems and test attitude determination and control hardware developed at Cal Poly and elsewhere. The spacecraft will be launched into a Sun-Synchronous, 700km altitude, 98 degree inclination orbit and will operate for a maximum of one month.

The RF systems include two Alinco DJ-C5T transceivers that connect to an experimental dipole antenna. The measured EIRP of the satellite is 300mW. The satellite, CP1, encodes basic telemetry data using DTMF tones and transmits these tones through the DJ-C5T FM transceiver on 436.8450MHz.

Experimental privileges are requested because no other service seems appropriate for experimental communications to serve university research in space.