

SATELLITE FREQUENCY COORDINATION IN THE TWO-METRE BAND

13 November 2013

The International Amateur Radio Union (IARU) provides a free frequency coordination service for stations in the amateur-satellite service.

The band 144-146 MHz ("two-metre" band) is allocated to the amateur service and the amateur-satellite service world-wide on a primary basis, with exceptions in several footnotes. This most used of all VHF amateur bands, accommodates weak signal terrestrial and moon-bounce operation, packet radios systems including APRS, propagation beacons, repeater systems, and satellite communications. Band plans are in place to help to maximize use and minimize interference.

These plans place the amateur-satellite service in a 200 kHz band from 145,800 – 146,000 MHz. Frequency coordination requests received by the IARU Satellite Advisor, including linear transponders and single channel per carrier systems, are so many as to require all users to tolerate interference. To mitigate interference, use of this band is recommended for downlinks only, to minimize interference from non-amateurs (illegals like taxis and cross-town telecom links) and to take advantage of lower free space path loss compared to higher frequencies.

Accommodating a temporary special need, IARU has extended the same frequency coordination service to experimental stations sharing amateur-satellite service frequencies.

IARU most strongly recommends that satellite builders asking for coordination make sure that their mission fits the definitions of the amateur services.

RR 1.56 *amateur service: A radiocommunication service for the purpose of self-training, intercommunication and technical investigations carried out by amateurs, that is, by duly authorized persons interested in radio technique solely with a personal aim and without pecuniary interest.*

RR 1.57 *amateur-satellite service: A radiocommunication service using space stations on earth satellites for the same purposes as those of the amateur service.*

Satellite projects not conforming to these definitions may be returned for reconsideration with a recommendation to look for frequencies allocated to radiocommunication services fitting their mission requirements. Builders are also urged to support work on [ITU Resolution 757](#) in ITU-R Working Party 7B.

Beginning 1 July 2014, IARU will no longer be able to accept frequency coordination requests for experimental stations in the two-metre band.