

ARRL and AMSAT Statement in Opposition to NVNG MSS Flexible Allocation Proposal

On behalf of the 750,000 United States licensed radio amateurs, the American Radio Relay League (ARRL) and the Radio Amateur Satellite Corporation (AMSAT) oppose the draft NVNG MSS "flexible allocation" proposal potentially affecting the amateur service and amateur-satellite service allocations.

The little LEO proponents have had more than a year to complete a technical study of the possibilities of sharing with the amateur services in the bands 144-148 MHz and 420-450 MHz. They have not demonstrated compatibility for sharing these amateur bands but over the evolution of their document have proposed various "new ideas" for use of these bands. At the last possible moment, they have introduced, without any technical support whatsoever, a proposal to introduce NVNG MSS into the primary amateur service allocation (in Region 2) of 220-225 MHz as well as the U.S. domestic amateur allocation of 219-220 MHz. ARRL and AMSAT have provided exhaustive detail on amateur and amateur-satellite systems in the band 144-148 MHz; the little LEO proponents have simply said "we can share" without any technical justification or analysis made available to the ARRL or AMSAT. A little LEO spokesman at the February 13, 1997 IWG-2A meeting acknowledged that no sharing study supporting sharing with either the amateur service or the amateur-satellite service had been undertaken.

Having not demonstrated compatibility with amateur systems, the little LEO proponents have proposed several ways of misapplying Resolution 640 to allow the MSS to use amateur bands during emergencies. Resolution 640 was adopted by the ITU to give administrations the flexibility to permit use of specified amateur allocations (several HF bands and 144-146 MHz) by relief agencies in the event of disasters. Resolution 640 was carefully crafted to balance the needs of international disaster relief organizations and the sovereignty of national administrations. Specifically, the Resolution limits the operation of non-amateur stations to the duration of the emergency and to the specific geographic areas as defined by the responsible authority. Communications are limited to between the disaster area and the permanent headquarters of the organization providing relief and may be carried out only with the consent of the administration of the country in which the disaster occurred. Resolution 640 was not intended to, and does not, permit commercial consumer devices to use those bands while amateur stations and relief agencies (when Resolution 640 is invoked) are heavily using those bands for vital disaster relief and health-and-welfare communications.

The latest version of the flexible allocation proposal proposes a modification of the allocation tables to add a MOBILE-SATELLITE (space-to-Earth) allocation in the bands 430-440 MHz (Regions 2 and 3) and 440-450 MHz. It stands to reason, as has been acknowledged by some little LEO proponents, that little LEO downlinks cannot use shared frequencies because their power flux-densities (pfd) on the Earth's surface are

high enough to be received by a hand-held MES with a simple monopole antenna, thus will interfere with all terrestrial receivers within line of sight of a satellite. As these satellite systems use constellations of satellites, there will always, or virtually always, be a satellite within view of a point on Earth. Thus a high percentage of the time, interference would be caused to receivers of existing services. Nevertheless, the proposed modified allocation table proposes adding MSS (s-E) to the existing services having allocations in the bands 430-440 MHz and 440-450 MHz without having any plan to mitigate interference to those other services or to reaccommodate them.

The band 430-440 MHz is a worldwide amateur allocation (primary in Region 1, secondary in Regions 2 and 3). The subband 435-438 MHz is used bidirectionally by almost all amateur satellites of the OSCAR series, including ten satellites currently in operation as well as amateur equipment aboard the *Mir* space station. The band 440-450 MHz is allocated on a secondary basis to the amateur service in the United States and some other countries. In the United States, the band is extensively used by amateur FM voice repeaters.

In the United States, the band 420-450 MHz is harmoniously shared between military radiolocation and the amateur services because of numerous factors making sharing possible. Recently, after careful technical study, military and amateur interests accepted the introduction of wind profiler radars at 449 MHz in the United States, 441 MHz in Canada. The flexible allocation proposal document shows no evidence of technical study and simply proposes a new use of the band that cannot share with the incumbent services.