

WAC Informal Working Group (IWG)-1

UNITED STATES OF AMERICA

DRAFT PRELIMINARY VIEWS ON WRC-11

AGENDA ITEM 1.14: to consider requirements for new applications in the radiolocation service and review allocations or regulatory provisions for implementation of the radiolocation service in the range 30-300 MHz, in accordance with Resolution **611 (WRC-07)**

ISSUE: To determine if any new radiolocation service allocations or applications in a portion of 30-300 MHz, with bandwidth no larger than 2 MHz, are compatible with existing services and applications in these bands

BACKGROUND:

Resolution **611 (WRC-07)** asks WRC-11 to determine if any new radiolocation service allocations or applications in a portion of 30-300 MHz, with bandwidth no larger than 2 MHz, are compatible with existing services and applications in these bands. The Resolution recognizes that it is important to ensure radiolocation radars can be operated compatibly with the existing primary services having allocations in the portions of the VHF band. Further, the Resolution states that introduction of new systems in the radiolocation service shall be avoided in the frequency bands 156.4875-156.8375 MHz and 161.9625-162.0375 MHz, which are used by distress and safety applications in maritime mobile service. Among other things, the ITU-R is invited to study the technical characteristics, protection criteria, and other factors to ensure that radiolocation systems can operate compatibly with systems operating in accordance with the Table of Frequency Allocations in services in the 30-300 MHz frequency range band. Working Party 5B is the lead Working Party on this agenda item.

Based on contributions to ITU meetings and other regional groups, it appears that at least one administration is targeting the 154-156 MHz band for a new radar allocation for space-object detection purposes and that another is targeting the 138-144 MHz band for new radar allocations.

The 30-300 MHz band is allocated to and used by a wide variety of services, including the fixed, mobile, Aeronautical Mobile (R), Aeronautical Radionavigation, broadcasting and amateur services. In the United States, the 138-144 MHz band, portions of the 150-174 MHz and the 220-222 MHz bands are available for land mobile radio use. Private

land mobile radio systems are used by companies, local, state or federal governments, and other organizations to meet a wide range of communication requirements, including coordination of people and materials, important safety and security needs, and quick response in times of emergency, but are not made available to the general public. A review of the FCC's licensing database for the frequency band 150-174 MHz band shows over 176, 000 active licenses. In the 154-156 MHz band alone, there are over 70,000 active licenses. The United States also has a large number of LMR systems operating in portions of the VHF band that are not part of the FCC licensing database. This frequency band has favourable propagation which allows implementation of systems with fewer base stations and hence a lower overall cost.

Further, in the United States, the bands 50-54 MHz, 144-148 MHz, and 222-225 MHz are allocated to the amateur and amateur satellite services. These bands are heavily populated by a variety of amateur and amateur satellite stations, including, but not limited to, over 9,800 voice repeater systems in these bands. VHF repeater systems are a predominant medium for amateur communications over a short range. These bands are also used by amateurs for simplex, digital, and long-range weak signal communication via terrestrial, satellite, and earth-moon-earth propagation paths.

U.S. VIEW: The United States is of the view that before any new radar allocations within 30-300 MHz can be adopted, it needs to be demonstrated that they are compatible with existing services (including land mobile systems and amateur radio systems) and that they would not unduly constrain use of the band by existing services.
