

## ***WAC Informal Working Group (IWG)-1***

### **UNITED STATES OF AMERICA**

#### **DRAFT PROPOSALS FOR THE WORK OF THE CONFERENCE**

**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)*

**Background Information:** Resolution 611 (WRC-07) asks WRC-12 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. The ITU-R has studied technical characteristics, protection criteria, and other factors to determine whether 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.

Based on contributions to ITU meetings and other regional groups, it appears that the primary range of interest is 154-156 MHz for a new radar allocation for space object detection purposes.

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, as well as a range of space services. 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 favorable propagation which allows implementation of systems with fewer base stations and hence a lower overall cost. Additionally, the maritime mobile service utilizes frequencies immediately above 156 MHz, and there are space service allocations in the 137-138 MHz, 148-149.9 MHz and 149.9-150.05 MHz bands.

Contributions to ITU meetings have not persuasively demonstrated compatibility with primary services in or adjacent to the 154-156 MHz range, nor are future contributions likely to demonstrate compatibility with primary services elsewhere in the range 30-300 MHz. Further, space object detection is already accommodated in the worldwide harmonized radiolocation allocation at 420-450 MHz. The UHF band is more suitable for this purpose because of a lower relative likelihood of transmissions being refracted back toward the earth during ionospheric disturbances.

**Proposal:**

## ARTICLE 5

### Frequency Allocations

#### Section IV – Table of Frequency Allocations

**NOC**      USA/AI1.14/1

**Reason:** No change to the Radio Regulations is necessary or desirable. The application of space object detection is already accommodated at a more suitable frequency range, and compatibility with primary services has not been demonstrated.

**SUP**      USA/AI1.14/2

#### ~~RESOLUTION 611 (WRC-07)~~

#### ~~Use of a portion of the VHF band by the radiolocation service~~

**Reason:** Consequential to completion of Agenda Item 1.14 at WRC-12.