



# International Amateur Radio Union Region 1

Europe, Middle East, Africa and Northern Asia

Founded 1950

## Committee C4 (HF Matters) Interim Meeting 16-17 April 2016 InterCity Hotel, Vienna

<b>SUBJECT</b>	<b>Data Mode Usage at 3.5 and 10 MHz</b>		
<b>Society</b>	<b>RSGB</b>	<b>Country:</b>	<b>UK</b>
<b>Committee:</b>	<b>C4</b>	<b>Paper number:</b>	<b>VIE16_C4_05</b>
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### Introduction

Operation of digital modes in all bands, but particularly in the 3.5 MHz and 10 MHz bands, is spreading outside the segment limits of the band plan on a regular basis. This is creating frustration that band plans are being ignored. Attempts to realign the band plan at 7 MHz have to some extent eased the problem on that band, but it continues on 3.5 MHz and particularly on 10 MHz.

### Background

The current band plans for digital modes were created when RTTY was the only significant data mode and activity was easily accommodated within the 10 - 15 kHz allocated to the segment.

In the last 10 - 15 years, the technical developments in digital modes and the advances in SDR techniques has created an enormous increase in activity on these modes on the HF bands. New digital modes continue to be developed and activity has outgrown the space available within the data modes segments.

The result is that digital mode activity is spreading out of the segments defined in the band plan. On some bands, the spread has occurred above the current segments, but on 10 MHz, all the spread has necessarily been below the bottom edge of the segment and into the CW exclusive segment.

Compounding the problem is the desirability of weak signal modes to use a common frequency worldwide and the incompatibility of the regional band plans result in most QSOs operating outside the band plan in some regions.

In Region 1, the biggest problem is at frequencies below 10.140 MHz which is allocated to data modes in Region 2, but is in the CW-only segment in Region 1. Complaints have been received from CW operators concerned that data mode activity is using the CW-only segment in Region 1, and there have been complaints of deliberate interference to data mode activity operating below 10.140 MHz.

Problems occur during DXpeditions which commonly use frequencies around 10.135 MHz for RTTY, with split operation spreading over 5 - 15 kHz.

JT65 and JT9 operation also use coordinated frequencies across all regions as propagation allows worldwide QSOs most days. Frequencies starting at 10.138 MHz and 3.576 MHz are used for this activity, which is outside the Region 1 data mode band plan, but is within the band plan in Region 2. Default frequencies are set within the data mode software, but as this is not region specific, very few operators will change from the default settings as they cannot make QSOs away from the commonly used frequencies.

Many other digital modes also regularly use frequencies below 10.140 MHz in Region 1.

### **Proposal**

The issue of inconsistent band plans across regions should be addressed with the goal of harmonising the HF band plans worldwide. This has been achieved on a number of bands, but major issues still exist on 10 MHz and on 3.5 MHz.

One option is to realign the Region 1 band plans with Region 2, but at 10 MHz and 3.5 MHz this will mean a reduction in the size of the CW exclusive segment.

A second option is to review whether band plans should be seen as obligatory, or whether there can be some acceptable flexibility in band plans whereby operation outside the mode segments is to be expected and accepted.

### **Recommendation**

That IARU Region 1 discuss the 10 MHz band plan and the 3.5 MHz band plan with a view to either harmonising with the other regions or defining an alternative proposal to encourage users to operate within a published band plan, noting that a reasonable expectation of worldwide QSOs should be possible.