

EUROPEAN COMMON PROPOSALS

PART 23

Agenda Item 1.23 – Realignment of the allocations at 7 MHz

Introduction

The ITU Recommendation 718(WARC-92) has been awaiting a resolution for 9 years. There is a need to satisfy this Recommendation and reasons stated therein such as different allocations in ITU Regions, large disparity in power levels between amateur and broadcasting services and consequential incompatibility. In addition, other reasons are:

- to meet the objective of harmonisation of allocations on a world-wide basis;
- to ensure globally harmonised, satisfactory spectrum access around 7 MHz for the amateur, broadcasting, fixed and mobile services;
- to resolve the incompatibility between the amateur service in Region 2 and the broadcasting service in Regions 1 & 3 between 7100 and 7300 kHz;
- to satisfy the spectrum requirements for the amateur services in Regions 1 & 3;
- to remove the long lasting uncertainty concerning the future of this part of the spectrum to facilitate planning and efficient spectrum utilisation, and to prevent proliferation of provisional solutions under RR No 4.4.

The fixed, land mobile and amateur allocations around 7 MHz support many important activities, including those with a humanitarian and disaster relief dimension (ref.: ITU-D Disaster Communication Handbook). The characteristics of these services are such that some sharing of allocations may be feasible.

The need of the broadcasting service should also be respected. The allocation to this service should be harmonised globally, and the amount of spectrum should at least be maintained. The adequacy of the frequency allocations to the HF broadcasting will be examined under agenda item 1.36, and this examination may lead to increased spectrum being allocated to broadcasting at a competent conference. However, it is important that a satisfactory solution to agenda item 1.23 is found irrespectively of the outcome of the examination under item 1.36.

The amateur community has stated its requirement as 300 kHz globally harmonised primary allocation, preferably 7000-7300 kHz; but it will also accept a shift of the allocation as long as the currently harmonised band of 7000-7100 kHz is included in the new allocation. Parts of the new allocation may also be shared with the fixed and mobile services to facilitate the realignment process.

The current allocation to the fixed and land mobile services around 7 MHz supports important civil as well as military usage. Therefore the possible loss of spectrum for the fixed (primary) and land mobile (secondary) services should be compensated by upgrading the land mobile

allocations to MOBILE except aeronautical mobile (R) primary status and sharing of these services with parts of the allocations for the amateur services above 7 MHz could be considered.

The ITU-R studies conducted prior to WRC-03 can be found in section 5.6 of the CPM Report. The information on sharing between the services involved in the 7 MHz realignment is to be found in the Report of JIWP 10-6-8-9/1 (25 October 1990) concerning *"Compatibility considerations arising from the allocation of spectrum to HF broadcasting"*. This study, which formed Section 5 of the CCIR Report to WARC-92, is still valid and was reproduced in the Report of the Director to WRC-2000 in response to Resolution 29 (WRC-97) (see Attachment 1 to Document CMR-2000/5).

From these studies it can be derived that:

1. any solution requiring sharing of spectrum between amateur and broadcasting services is not desirable, since experience has shown that this is unacceptable in the long run;
2. some movement in frequency of the allocation to the amateur services around 7 MHz may be acceptable;
3. a reduction of the amount of contiguous spectrum allocated to the broadcasting service in the 7 MHz band is unacceptable to broadcasters, but there is flexibility with regard to the actual location of this band, taking due account of the availability of receivers for the broadcasting service;
4. attention should be given to the spectrum requirements of the land mobile service below 7 MHz;
5. the band 6 765-7 000 kHz has been identified as essential for supporting fixed service operations of all types;
6. sharing between the amateur service and the fixed and mobile services is feasible;
7. the realignment should involve the minimum necessary shift in allocation blocks in order to limit the economic impact on users;
8. dynamic frequency sharing or real time frequency management is a useful tool for providing communication circuits that are not otherwise possible because of interference constraints.

The frequency realignment around 7 MHz will inevitably result in changes to the allocations for the amateur, broadcasting, fixed and mobile services in the range 6 – 8 MHz. In order to make the changes acceptable to these services, and to ensure an orderly transition, an implementation process needs to be defined such that the majority of the changes can be accommodated within the normal timescales applied to the maintenance and renewal of equipment and infrastructure. There will also be substantial implications regarding receiver design. Without making any assumptions of the location and extent of the broadcasting band above 7 300 kHz, it is clear that many receivers will no longer provide adequate tuning coverage for the new broadcasting band. The present circumstances do however provide a perfect opportunity to associate the band allocation changes with the advancement of digital modulation techniques for broadcasting. Although modern transmitters can be adapted to accommodate digitally modulated emissions, this is not possible for modern receivers - meaning that owners will have to consider replacement.

Taking this into account, and considering that the frequencies immediately below 7 MHz are critical for the fixed and mobile services, and that an upward shift in the start frequency to

7200 kHz would be easier for the broadcasting service to accommodate than a start at 7300 kHz, the following solution is suggested as a two stage implementation, albeit resulting from a single decision at WRC-03.

This approach, together with suitable timescales, provides the necessary assurance to the broadcasting service and other affected services for a smooth implementation of the revised frequency allocations around 7 MHz.

The amateur service will gain some spectrum at the first stage, and the target of a 300 kHz globally harmonised spectrum allocation will be achieved in the second stage.

The fixed and mobile services do not lose spectrum below 7 MHz. However, to compensate for possible loss in spectrum at the upper part of the 7 MHz band, and to bridge the gap between 7000 –7550 kHz, an additional allocation is required within the central part of this band. This new allocation will be shared by the amateur, fixed and mobile services.

Proposals

MOD EUR/1.23/1

6 765-8 100 kHz

Allocations to services		
Region 1	Region 2	Region 3
6 765-7 000	FIXED MOBILE except aeronautical mobile (R) 5.138	
7 000-7 100	AMATEUR AMATEUR-SATELLITE 5.140 5.141	
7100-7200 AMATEUR 5.FFF 5.BBB	7100 - 7200 AMATEUR MOD 5.142	7100-7200 AMATEUR 5.FFF 5.BBB
7200-7300 AMATEUR FIXED MOBILE except aeronautical mobile (R) 5.CCC	7 200-7 300 AMATEUR MOD 5.142	7200-7300 AMATEUR FIXED MOBILE except aeronautical mobile (R) 5.CCC
7 300-7 500	BROADCASTING 5.134 5.143 5.DDD 5.EEE	
7500-7550	BROADCASTING 5.EEE	
7 550-8 100	FIXED MOBILE except aeronautical mobile (R) 5.144	

Reason: The allocations in the band 6765-8100 kHz are changed to obtain harmonised allocations for all the current services in all three ITU regions.

ADD EUR/1.23/2

5.BBB In Region 1 and 3 the band 7100- 7200 kHz is allocated to the broadcasting service until 1 April 2007 on a primary basis. From 1 April 2007 until 25 October 2009 the band is allocated to the amateur, fixed and mobile except aeronautical mobile (R) services on a primary basis.

ADD EUR/1.23/3

5.CCC In Region 1 and 3 the band 7200-7300 kHz is allocated to the broadcasting service on primary basis until 25 October 2009

ADD EUR/1.23/4

5.DDD Until 1 April 2007 the band 7350-7450 kHz is allocated to the fixed service on primary basis and to the land mobile service on secondary basis.

ADD EUR/1.23/5

5.EEE Until 25 October 2009 the band 7450-7550 kHz is allocated to the fixed and mobile except aeronautical mobile (R) service on primary basis.

SUP EUR/1.23/6

5.139

Reason: The footnote which refers to some CEPT countries is no longer needed since the allocation has been included in the Table.

MOD EUR/1.23/7

5.142 From 1 April 2007 until 25 October 2009, the use of the band 7 100-7 300 kHz in Region 2 by the amateur service shall not impose constraints on the broadcasting service intended for use within Region 1 and Region 3.

ADD EUR/1.23/8

5.FFF On condition that harmful interference is not caused to the broadcasting service, administrations may allow stations in the amateur service in Regions 1 and 3, from 1 January 2005 until 1 April 2007, to use frequencies in the band 7100-7200 kHz on a secondary basis, using a total radiated power not exceeding 24 dBW.