

Programme-making and special events: future spectrum access

Stakeholder workshop

Philip Rutnam, Steve Roper & Mike Reynolds

18 July 2007

Agenda

- Introduction
- Use of UHF Spectrum for Programme Making and Special Events in the UK
– Mike Reynolds, Sagentia Ltd.

Q & A

- PMSE future spectrum access consultation – Steve Roper

Q & A

What we are discussing today

- Consultation on future spectrum access for PMSE published 20 June 2007
- Main focus is access to **digital interleaved** spectrum
- Specifically, on the **institutional arrangements** for access
 - issue that has been at the heart of recent debates
 - key to resolving other questions
- Consultation also considers scope for **extending the model used for this spectrum to other bands**
 - around 80 bands in total used by PMSE; aim is to raise issue, not to cover all dimensions

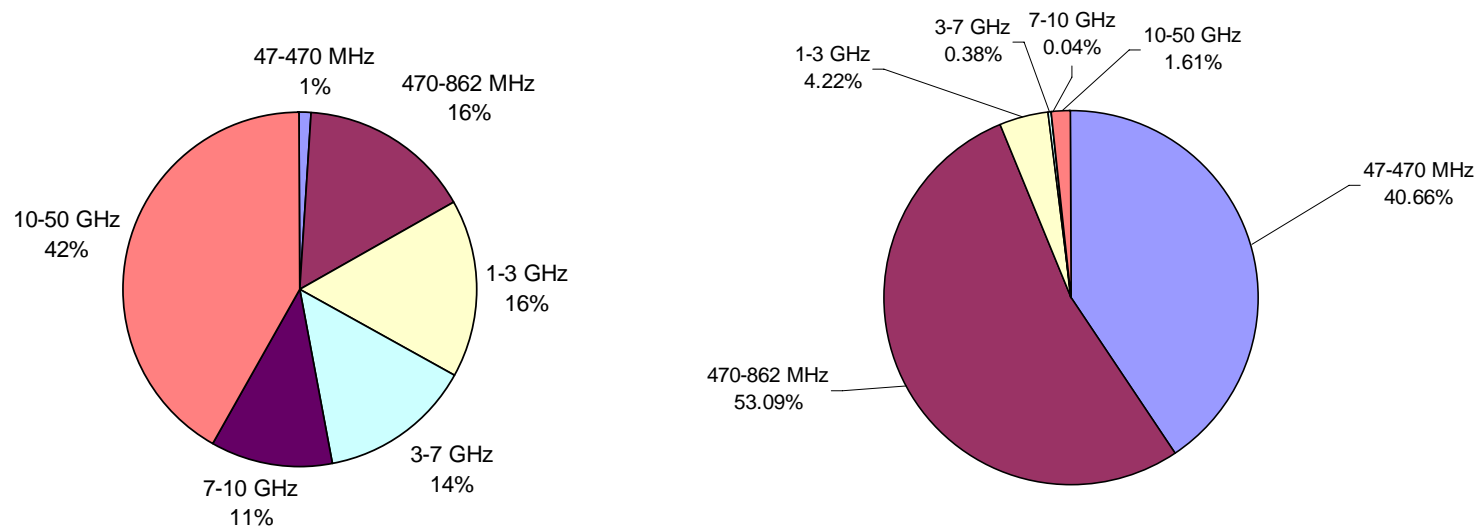
Other issues

- The consultation does not make any proposals on quantity of spectrum
- Nor does it contain any new proposals on Channel 69
- The focus is on 'professional standard' co-ordinated access
- We expect to return to other issues later in the year, but
 - we reaffirm our intention to continue making spectrum available nationwide, including for shared use, suitable for many community users
 - We continue to work on the assumption that there should be broadly sufficient capacity to allow existing professional PMSE use to be accommodated

There are major challenges facing the sector

- Rising demand for spectrum from many other uses and users
- Spectrum policy stressing need for more flexibility and use of market mechanisms
- Wireless microphones generally rely on mature analogue technologies, with limited innovation
- Scope for using more efficient technologies, including better analogue equipment
- Major driver of improvements in efficiency at present is congestion, not cost of spectrum
- PMSE sector not well equipped to deal with change

Spectrum available and spectrum used



The chart on the left shows the spectrum available for PMSE – 2.5GHz in total. 83% is in the less scarce frequencies *above* 1GHz

The chart on the right shows the use made of these bands. 93% is in the frequencies *below* 1GHz

PMSE spectrum

Band	Freq. (MHz)	Assignments during 2006		Primary users				
		(#)	(%)	MOD	Broadcast	FWS	Mobile	Space
Band I	47-62 MHz	387	0.59%	✓			✓	
Low Band	67-86	51	0.08%	✓		✓	✓	
High Band	139-148	183	0.28%	✓		✓	✓	✓
Band III	173-225	812	1.23%		✓		✓	
UHF 1	420-450	1552	2.35%	✓		✓	✓	
UHF 2	450-470	23891	36.14%			✓	✓	
Bands IV & V	470-854	30853	46.67%		✓			
Channel 69	854-862	4243	6.42%				✓	
1.5 G	1488-1800	123	0.19%			✓	✓	✓
2 G	2025-2690	2522	3.82%	✓			✓	✓
3.5 G	3400-3600	146	0.22%	✓				
5 G	5427-5925	82	0.13%	✓		✓	✓	✓
7 G	7110-7424	169	0.26%			✓	✓	✓
8 G	8460-8500	4	0.01%			✓		✓
10 G	10.30-10.36	23	0.03%	✓			✓	
11/12 G	11.74-12.50	1064	1.61%	✓	✓	✓	✓	✓
24 G	24.25-24.50	0	0.00%			✓		
48 G	48.00-48.40	0	0.00%			✓	✓	✓
Total		66105	100.00%					

Agenda

- Introduction

- Use of UHF Spectrum for Programme Making and Special Events in the UK
– Mike Reynolds, Sagentia Ltd.

Q & A

- PMSE future spectrum access consultation – Steve Roper

Q & A

Agenda

- Introduction
- Use of UHF Spectrum for Programme Making and Special Events in the UK
– Mike Reynolds, Sagentia Ltd.

Q & A

- PMSE future spectrum access consultation – Steve Roper

Q & A

Objectives

- Avoid disruption to PMSE users
 - we recognise the huge importance of this sector to citizens and consumers, and that these are existing users
- Help the PMSE sector to participate effectively in a market-based approach to spectrum
 - with stronger capability and incentives to use spectrum efficiently
- Promote the optimal use of spectrum in relation to all potential uses and users

Options in the consultation

The consultation sets out a range of options for future PMSE access to the digital interleaved spectrum. We have compared these against our objectives

Option 6 is included for completeness only – we do not consider that it would be acceptable

Status Quo		Transition			No intervention
Option 1	Option 2	Option 3	Option 4	Option 5	Option 6
Status Quo	Status Quo With AIP	Beauty Contest with AIP	Auction with additional safeguards	Auction with DDR safeguards	Auction without safeguards

Options 1 and 2 – status quo

These would effectively involve replicating the current arrangements from DSO:

- Ofcom would make access to spectrum available on administrative basis
- Ofcom would contract with band manager
- short-term licences up to 1 year
- prices to include cost of spectrum in option 2, administrative costs only in option 1
- periodic reviews of prices and policy

These options score well in avoiding short-term disruption, but would do little to help PMSE sector build capability or plan for long-term. Limited incentives for efficiency

Assessment of options 1 and 2 against objectives		
Avoid disruption	Facilitate market	Promote optimal use
✓✓	✗	✗

Options 3 and 4

Aim would be to create a spectrum management organisation that can meet interests of PMSE and other users:

- strong incentives to manage spectrum efficiently
- the capability and expertise to do so
- the resources to participate in more market-based approach to spectrum (which may include participating in subsequent auctions)

Options 3 – beauty contest with AIP

This option might involve:

- Ofcom identifying single package of interleaved spectrum for award
- Holding beauty contest, i.e. comparative selection process. Intended to achieve alignment between interests of users and band manager
- Licence of indefinite duration but can be varied/revoked on notice
- AIP payable to reflect opportunity cost of spectrum

Assessment of option 3 against objectives		
Avoid disruption	Facilitate market	Promote optimal use
✓✓	✓	✓

Options 4 – auction with additional safeguards

This option might involve:

- Ofcom identifying single package of interleaved spectrum for award
- Holding pre-qualification process
- Holding auction for rights, with transitional protection for PMSE
- Licence of indefinite duration, with limited grounds for revocation
- Price for licence set via award process rather than AIP

Assessment of option 4 against objectives		
Avoid disruption	Facilitate market	Promote optimal use
✓	✓	✓✓

Options 5 – auction with DDR safeguards

This option might involve:

- Professional users required to acquire interleaved spectrum at auction
- PMSE access to analogue interleaved spectrum guaranteed before switchover (guaranteed until between 2008 to 2012 depending on region)
- PMSE access to digital interleaved spectrum guaranteed until end 2012

Assessment of option 4 against objectives		
Avoid disruption	Facilitate market	Promote optimal use
x	✓ ✓	✓ ✓

Next steps

The next steps in this process include:

- Further engagement with both the PMSE community and with other spectrum users
- Exploring the feasibility of establishing a band manager for DDR spectrum which could serve as an intermediary for the PMSE sector
- Considering how much spectrum should be packaged for use by PMSE
- Considering how much spectrum should be packaged as geographical assignments suitable for (but not limited to) local TV

Timetable

- 31 August 2007 PMSE consultation closes
- Late 2007 Policy statement
- Late 2007 Further consultation on detailed award proposals
- Late 2008 / early 2009 Award

Questions?