

**PSSTG – JRG radar workshop**

# **The Independent Audit of Spectrum Holdings**

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# Ofcom's Spectrum Functions

- **Manages nearly all the civil spectrum**
- **Licenses users under the Wireless Telegraphy Act**
- **Represents the UK (all spectrum users) in international fora (even though it is an “independent regulator” and not part of the government within the UK)**
- **A strong relationship between the spectrum regulator, the MOD and civil aviation and maritime regulatory authorities**

## Ofcom's Spectrum Management Duties

To secure the **optimal use of the spectrum**, having regard to the different needs and interests of all users

In carrying out its spectrum management duties, Ofcom must have particular regard to:

- **Availability of spectrum**
- **Current and future demand for spectrum**

And to the need to promote:

- **Efficient management and use of the spectrum**
- **Economic and other benefits arising from its use**
- **Development of innovative services**
- **Competition in electronic communications services**

## **Ofcom's Spectrum Management Objectives will best be met by:**

- **Allowing spectrum to flow to its most valuable use**
- **Maximising opportunities for innovation, by minimising impediments**
- **Ensuring that spectrum is in market, not the regulator**

## **Extending market principles to Public Sector spectrum - Independent Audit of Spectrum Holdings**

- Established by UK Government (Treasury) at end of 2004 - led by Prof Martin Cave
- Supported by The Treasury and Ofcom
- Report published December 2005; Government (and Ofcom) response published March 2006; update report published December 2006
- Builds on increasing acceptance of principles and earlier introduction of pricing for almost all other spectrum uses (including defence)

## Independent Audit of Spectrum Holdings - Background

- Major expansion of market forces to commercial spectrum management
- Significant amounts of spectrum held by public sector (including for transport services)
- Many allocations unchanged for decades – in contrast to dynamic environment and rapid growth in commercial sector
- Broad reviews of other government assets (e.g. land)

## The Audit's recommendations

Subject public sector spectrum to market forces:

- Extend application of spectrum pricing for defence and to aeronautical and maritime applications in coming years
- Encourage public sector users to open up spectrum to other users (through trading or release) and allow them to keep the income
- Consider new sharing techniques including feasibility in previously no-go areas (such as aeronautical radar)
- Define usage rights and sharing (especially civil/military) arrangements more clearly through quasi-licences for military users
- Meet new public sector requirements through spectrum market – exceptions subject to strict criteria
- More emphasis on forward planning – develop public sector spectrum strategy
- Opportunities for improvement identified

## Implementation (as at April 2007)

- Recommendations generally endorsed by Government and Ofcom
- Mechanism for specifying government spectrum user rights identified (Ofcom expects to consult on public sector trading in early summer)
- Priority bands for release or sharing identified (includes key radar bands)
- Govt administrative changes introduced to support spectrum efficiency drive and Government “Forward Look” document published (March 2007)
- Study into spectrum pricing for aeronautical and maritime bands completed (due for publication 24 April 2007)
- Trials commenced looking at opportunities for sharing spectrum between radar and other radio systems
- Continuing programme of implementation over next two years

## UK Bandsharing initiative: 2006-07

- **A joint civil-military aeronautical and maritime initiative to explore bandsharing opportunities:**
  - **Interference testing**
  - **Defining theoretical safety criteria**
  - **Testing the criteria and mitigation techniques**

Military interference and mitigation trials (Scotland May 07 - TBC)



Civil maritime radar interference field trials (Oban Scotland November 06)

Civil aeronautical field trials (options for 2007 under consideration)

Land and coastal range based interference tests (March-July 06)

## Next steps

- What level of protection do different radars actually need?
  - How to define and test this?
- Decisions on how to manage these bands in future
  - Defining rights and protection criteria (preventing interference)
  - Spectrum fees
  - Sharing with non-radar radio systems

## Conclusion

- **The UK's approach to spectrum management is changing fast – and has to in order to release the huge potential value of the spectrum**
- **Opening up large tracts of spectrum that have remained unchanged for decades is part of the programme**
- **Must be pursued with vigour - but also with caution to ensure key services are not harmed**
- **International acceptance and support will enable realisation of the true potential of the UK approach**

# Thank You

Details of all Ofcom's policies, consultation documents, etc  
at:

[www.ofcom.org.uk](http://www.ofcom.org.uk)

The Independent Audit of Spectrum Holdings at:

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