



Strategic Command  
Defence Digital

# Defence-Controlled Dynamic Spectrum Access

**A Proposal**

# PSSRP Government Target

750 MHz of valuable public sector spectrum in bands under 10 GHz will be made available by 2022, of which 500 MHz will be made available by 2020

National  
Prosperity

National  
Security



# Public Spectrum Release Programme

PSSRP runs to 2022 and targets 750 MHz below 10 GHz for release\*

Impact on Defence

2014 UK Spectrum Strategy

What happens after 2022?



# What is DC-DSA ?

A range of solutions

Comparison to Ofcom's "White Space"  
Dynamic Spectrum Access

Policy under consideration

Start simple and build detail

Potential application to ALL Government  
spectrum



# Why Defence-controlled?

Keep access to what we need

Surety of return

Maximal release/sharing

Obfuscation of use

Train as we fight





# Other views on the idea?

Ofcom

DCMS

OGDs

Industry

Others



# What does Defence still need?

Economics – business cases

Technicalities – like White Space databases or more?

Licensing issues

Things we've missed? SPF is a forum for views after all

If industry is interested it needs to tell Ofcom







# A DC-DSA Scenario

Lower 2.3 GHz

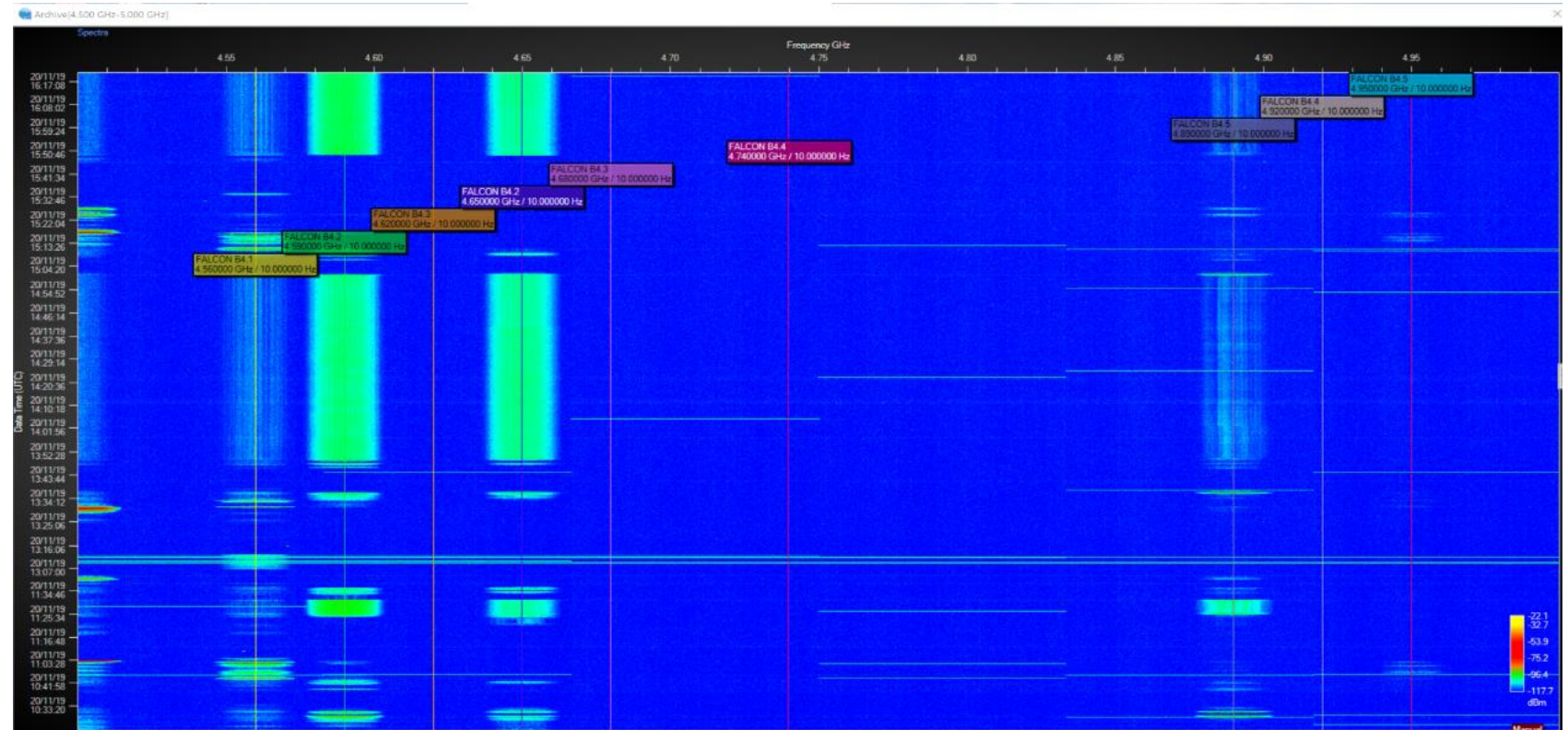


# Example ground based defence usage :- C band tactical PtP links on a major exercise

This shows spectrum in this band is available even during a major exercise.

A sharer would have an agreed minimum amount of bandwidth, but the actual frequency would change with a set notice period.

Could be an email based system.



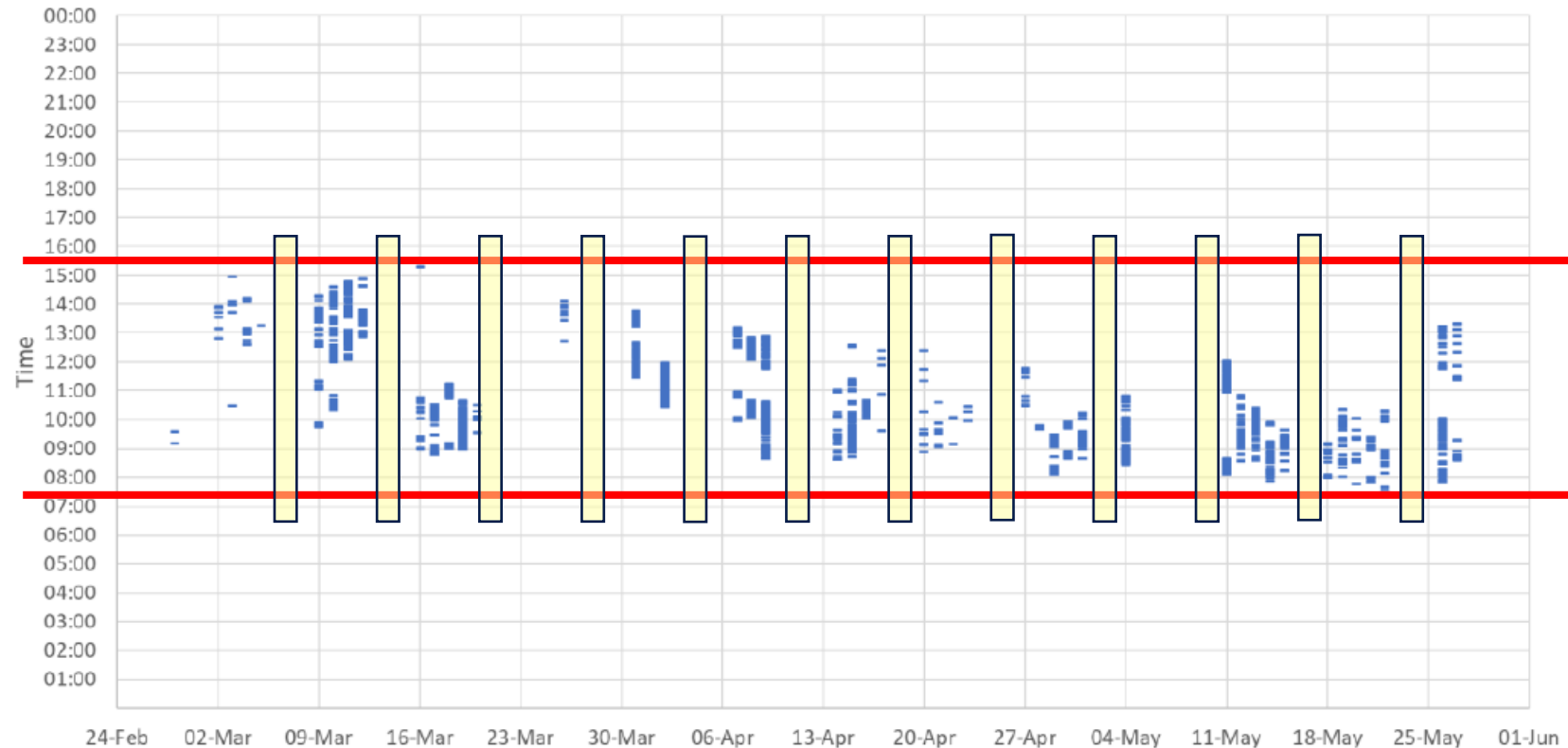
# Example of real airborne defence usage :- 2.3 GHz band training system

Red lines show no use before 07:00 or after 15:30.

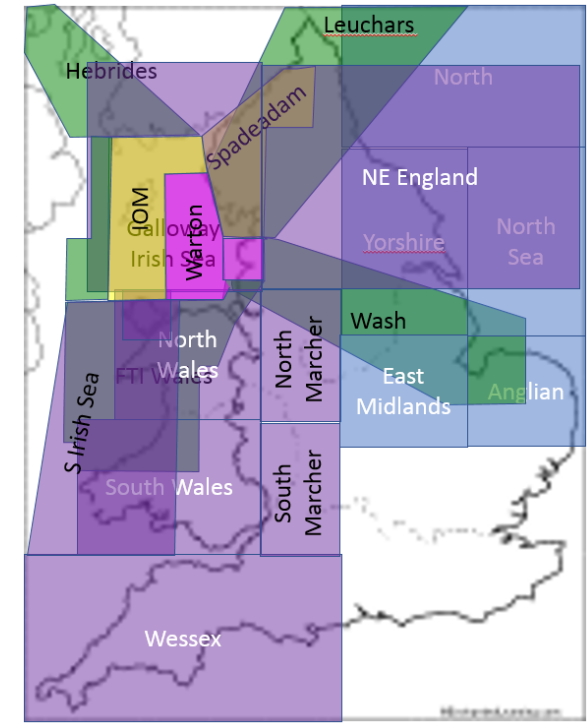
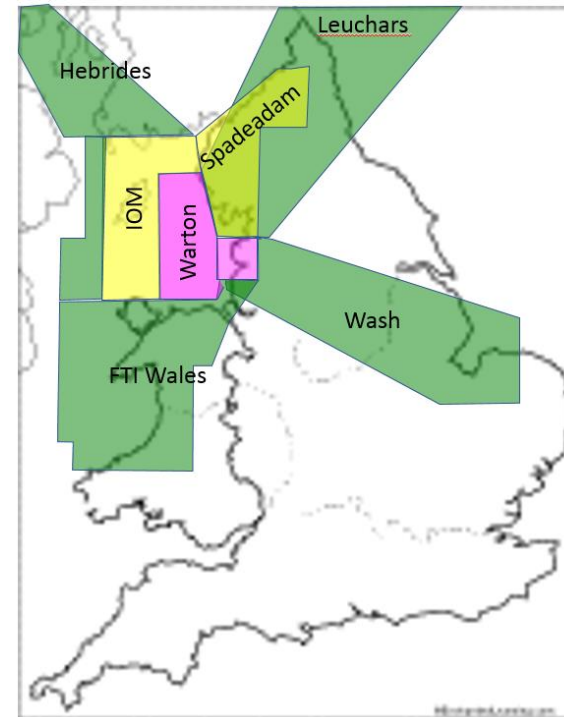
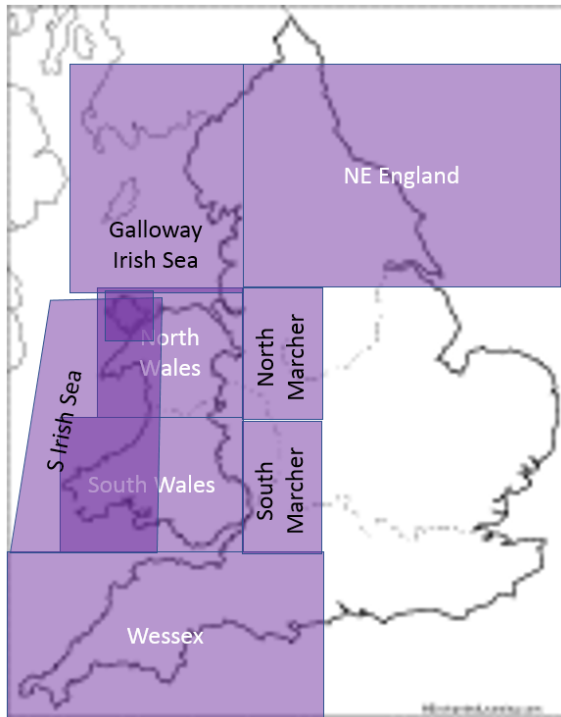
The yellow boxes show no use at weekends.

A sharer could use spectrum outside defence hours or in a more dynamic system have 24/7 usage of an agreed minimum amount of bandwidth, but the actual frequency would change dynamically.

Probably a RF Monitored system.

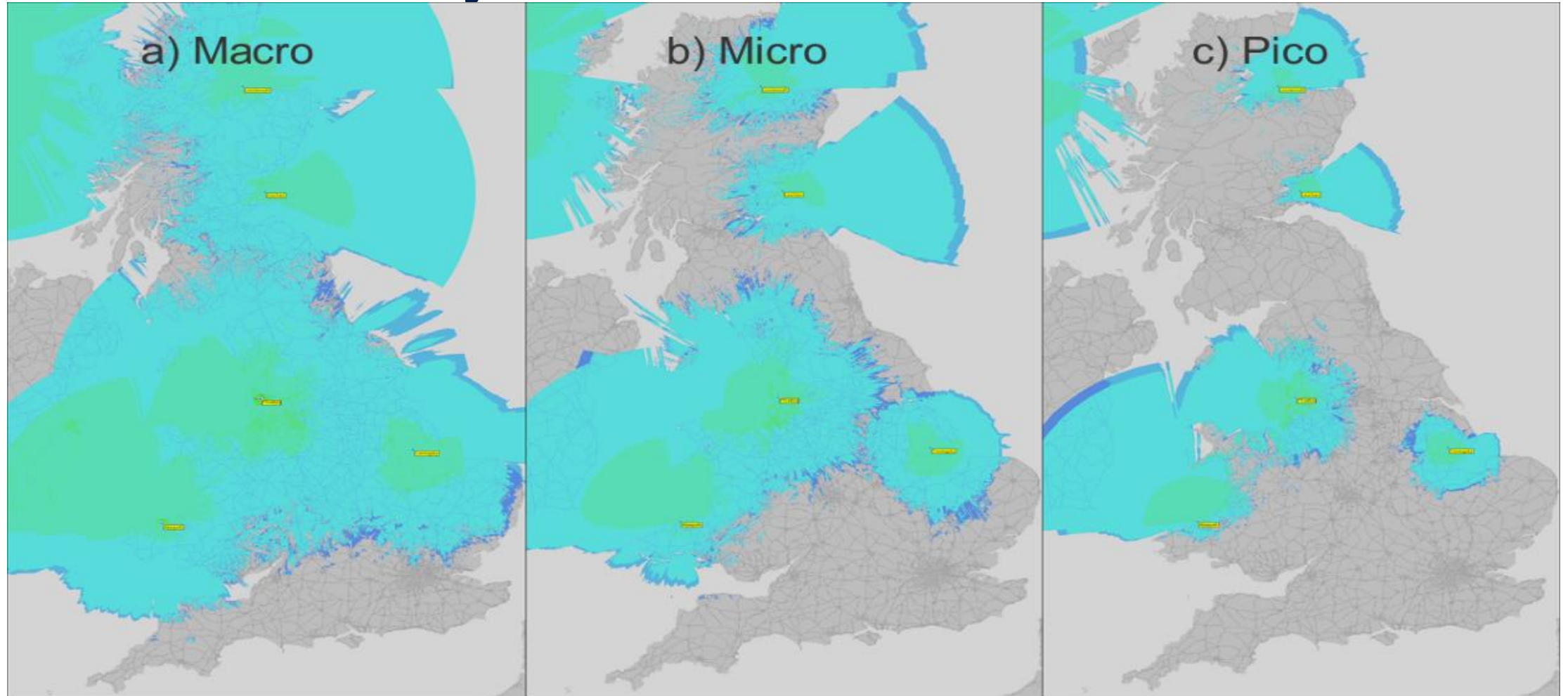


# Example of different airborne systems operating areas:- 2.3 GHz band data link systems





# Example of different co-ordination areas required for a defence system from LTE.





# REMINDER: What does Defence still need?

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