

US Postal Service Summary Report 1755-1850 MHz Comparable Band Assessment

Executive Summary

The NTIA has requested all Federal agencies to review and submit their radio systems utilizing frequencies in the 1755-1850 MHz band for future relocation considerations. This action is in response to the President's goal of making 500 MHz of spectrum available for commercial use and for technological advancements forthcoming in the next ten year period. US Postal Service supports this action and is focused to provide the requirements of a timely transition.

Currently, US Postal Service's law enforcement arm, Inspection Service, utilizes covert video surveillance operations in the 1800-1846 MHz on three US&P allocations. They also use fixed based video links to carry this information. This is not unlike other governmental law enforcement agencies where we share the common spectrum resource at 1755-1855MHz for this type of operation.

1.1755-1850 MHz Bands Characteristics

- 1.1 Identify by type, the systems they have in this band and numbers of each system. **We currently have 50 covert systems that operate nationwide for criminal investigation in this band.**
- 1.2 Identify the number of assignments by system type-**USPS870223, USPS050001, USPS050002 all are video surveillance operations.**
- 1.3 Identify the type of assignment by system-**All assignments are US&P with FX station class.**
- 1.4 Provide a brief description of operation-**Conducting video surveillance during criminal investigations. This includes undercover operations as well as documenting cooperating witnesses.**
- 1.5 Describe why the operation cannot be accomplished by use of commercial services or non-RF-solutions-**Current commercial services do not provide the level of performance nor security requirements. This would result in poor evidence collection and questionable material in investigations.**

1.6 Provide geographical area location of assignments, gross assessment of time of operation-**Systems may be deployed at anytime, anyplace to document and record an activity under investigation.**

1.7 Provide a gross characterization of the systems frequency of use-**24/7 utilization and is not predictable.**

2. Comparable Band Evaluation

The band with the most similar characteristics of propagation is the 2200-2290 band. The signal loss at next higher spectrum causes problems with coverage and dropout. The higher spectrum requires more complex repeater operations to cover the same distance to a drop point. Next generation desirable systems are under development but not currently available.

2200-2300 Band

2.1. Technical Considerations

2.1.1 If any, what are the limitations on system performance anticipated in this band that would be attributable to technical or technology shortcomings-**This band has similar propagation with signal loss, fading and the limitations as the current 1.7-1.8 MHz band.**

2.1.2 What are the available technical solutions that would enable the system to overcome such limitations-**Larger TX power considerations with larger packaging for battery used.**

2.1.3 What is the state of the availability and maturity options of the technology necessary to overcome the limitations-**Systems are currently available in this band, we not totally aware of full digital systems that could be spectrum efficient.**

2.1.4 For systems under consideration, what mitigation options would be available to minimize or eliminate the limitations due to this band-**None are known.**

2.1.5 Which preferred technical solution has been identified to overcome any performance limitations related to technology and what are your reasons why this solution is preferred-**Digital emission would be preferred to reduce spectrum footprint and to maximize spectrum efficiency.**

2.2 Operational Consideration

2.2.1 What are the alternate bands-**Currently USPS has no other assignments in other bands of consideration and it is expected to become congested quickly. Research and development is currently under way to provide federal agencies with alternate equipment.**

2.2.2 If there are limitations, to what extent will they impact mission effectiveness- **Harmful interference to each others operation if not closely monitored and coordinated.**

2.2.3 What are the possible mitigation options available to minimize or eliminate the limitations-**See the following 2.2.4**

2.2.4 What is the identified preferred solution for overcoming the limitations on the performance brought on by the operational environment and what are the reasons this solution is preferred- **We recommend a national coordination scheme to allow proper utilization of the channels available.**

2.3 The extent to which other constraints impede relocation to a comparable band and proposed remedies-**None**

2.4 A gross estimate of time required to transition out of the 1755-1850 MHz band to a comparable band- **5 years or less starting from funding date.**

2.5. A gross estimate of the cost to transition out of the 1755-1850 band to a comparable band-**\$6.5 million**

2.6 A ranking of each comparable spectrum in priority order, from highest to lowest-**To date, 2200-2290 offers the only available solution until research and development puts other spectrum on the table for usage. USPS will work with other government agencies to stay abreast of device available in all comparable bands.**

2.7 For each comparable bands for each type of operation discuss the rationale for selection on non-selection- **DOJ presents the lead on this topic with USPS following the general consensus provided by this agency.**

2.8 Early Transition-Identify any operations that could transition from the 1755-1780 MHZ portion in less then 5 years-**Yes, dependent on funding for current systems in operation.**

Conclusion

USPS supports this initiative and the timelines will be dependant on funding and further research and development.