18 GHz Microwave and CMRS

- Fixed Microwave Service Spectrum Needs
  - Fixed Microwave Services provide reliable communications for a wide variety of businesses and organizations. These include common carriers, utilities, public safety organizations, state and local governments, rail roads, etc.
  - The relocation of the 1850-1990 MHz band involved over 4,500 microwave links. The 2.1 GHz band relocation will involve over 14,000 microwave links. Congestion is building in the 6 GHz band in many areas.

18 GHz Microwave and CMRS

- Fixed Microwave Service Spectrum Needs
  - Fixed Microwave Services should not be the spectrum reserve of first resort.
  - Globalization, as seen in the LEO Satellite services, has an unintended consequence for US operators of fixed microwave services. The US has had different frequency allocations than the Europeans and others for many years. Global frequency allocations are made based on what most countries use, this makes the US fixed microwave services vulnerable for reallocation.

18 GHz Microwave and CMRS

- Fixed Microwave Service Spectrum Needs
  - In order to accommodate global satellite systems, the US should begin to open the 7 and 15 GHz bands for fixed microwave services.
  - This will allow equipment manufacturers to standardize domestic and export product lines and offer spectrum congestion relief.

18 GHz Microwave and CMRS

- Conclusion
  - 18 GHz is an important band for providing reliable, cost effective back haul for wireless subscribers.
  - Spectrum sharing on a co-channel basis with satellite services will be extremely difficult.
  - Band segmentation could provide the necessary frequency separation. However, the number of terrestrial fixed service users needs to be considered.
  - Relocation costs for any move should be paid by new entrants.
  - Opening 7 and 15 GHz bands would replace lost spectrum