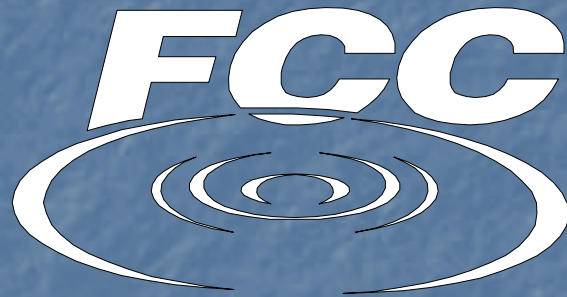


# FCC Spectrum Policies



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Federal Communications Commission  
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Memo to Faulhaber and Hazlett:

**We Get It!**

but it's not quite that easy...



# SPTF Findings and Recommendations

- **Spectrum access is a more significant problem than physical scarcity**
  - Most spectrum is not in use most of the time
  - New technologies can operate in “white spaces” (in time and space)
- **A new approach to interference protection is necessary**
  - New technology is more interference-tolerant
  - More measurement is needed to quantify spectrum usage and availability
- **Spectrum policy must evolve towards more flexible and market-oriented regulatory models**
  - Regulatory barriers inhibit spectrum access

# SPTF Findings and Recommendations

- Spectrum regulation must be based on clear definitions of rights and responsibilities
- No single regulatory model should be applied to all spectrum
- Pursue balanced spectrum policy that includes
  - Granting of exclusive spectrum rights through market-based mechanisms (including easements in the first instance)
  - Creating open access to spectrum “commons”
  - Command-and-control regulation used in limited circumstances (e.g., public safety)

# Scope of FCC Responsibilities

- Defining Rights
  - Allocation – International (ITU) and Domestic (FCC)
  - Service Rules – FCC (limited by allocation)
- Distributing Rights
  - Licensing – FCC (discretion limited by statute)

# Limits on Defining Rights

- International Allocations
- Statutory, not property right – Section 301 “It is the purpose of this Act...to provide for the use of such channels, but not the ownership thereof....”
- Interference from adjacent services or neighboring countries

# Limits on Distribution of Rights

- Statutory – avoid mutual exclusivity – Section 309(j)(6) “Nothing in this subsection, or in the use of competitive bidding shall...(E) be constructed to relieve the Commission of the obligation in the public interest to continue to use engineering solutions, negotiation, threshold qualifications, service regulations, and other means in order to avoid mutual exclusivity in application and licensing proceedings.”
  - First Come, First Serve / Frequency Coordinated
  - Unlicensed
  - Other non-exclusive applications
- If the Commission establishes a licensing plan that permits mutual exclusivity, then distribute via auction unless:
  - Public safety radio services – Section 309(j)(2)
  - Digital television initial licenses or construction permits – Section 309(j)(2)
  - Noncommercial educational and public broadcast stations – Section 309(j)(2)
  - International satellite – Section 647

# Trends in Defining Rights

- Generally toward completely flexible rights
  - CMRS
  - Advanced Services
- Generally eliminate service restrictions
  - Pools of service for taxicabs, forestry, etc.
- Generally eliminate technology limitations
  - Fixed v. mobile
  - Terrestrial v. satellite

# Trends in Distributing Rights

- If initial rights distribution, then generally use exclusive model via auction
- Unlicensed option generally adjunct to other uses in band (*see, i.e.,* ISM use 900 and 2.4) usually an effective underlay due to limited commercial and technological appeal
- If significant incumbencies exist, then grant rights to incumbents and facilitate secondary markets

# UWB and Interference Temperatures

- Noise floor has always existed and limited licensees' capabilities
- Question: Is there value in government defining these rights explicitly or remaining undefined and subject to regulatory tampering?

# Key Decision Points

- Secondary Markets Order (rel. Oct. 03) – beginning to see market movement
- Next Secondary Markets Order (Summer 04) – further advances the initiative
- MMDS/ITFS Flexibility (Summer 04)
- Interference Temperature Order (Early 05)



# Additional Information

- FCC's Internet Site: [www.fcc.gov](http://www.fcc.gov)
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