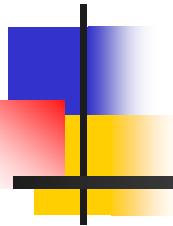
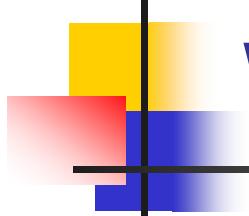


NOAA SPECTRUM MANAGEMENT and Spectrum Planning

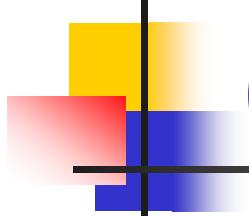


David F. McGinnis
NOAA/NESDIS Frequency Manager
CORF Presentation
27 April 05



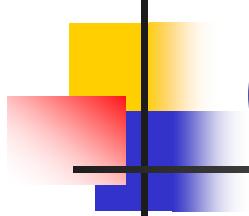
WRC-07 Items of Interest

- Agenda Items Concerning Passive Sensing Allocations of interest to NOAA
 - 1.2 – Sharing with active services in 10.6-10.68 GHz and 36-27 GHz and extending current metsat space-to-Earth allocation in 18.1-18.3 GHz by 100 MHz
 - 1.20 – Unwanted emissions from nearby active services into several exclusively passive bands



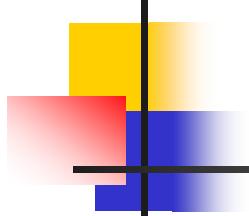
WRC-07 Items of Interest (cont'd)

- Agenda Items of secondary interest to NOAA
 - 1.8 – Technical sharing and regulatory provisions for High Altitude Platform Stations (HAPS) in 31-31.3 GHz (adjacent to 31.3-31.5 GHz exclusively passive band). Need to keep HAPS power limits (-106 dB(W/MHz) currently in 5.543A of ITU Radio Regs



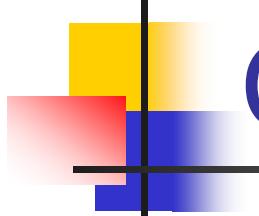
WRC-07 Items of Interest (cont'd)

- Agenda Items of secondary interest to NOAA (cont'd)
 - 1.18 – Power flux density limits in 17.7-19.7 GHz for satellite systems in highly inclined orbits. Need to protect passive sensing band in 18.6-18.8 GHz and keep unchanged limits in ITU RRs 21.5A (Fixed Service) and 21.16.2 (Fixed-Satellite Service) via footnote 5.522A



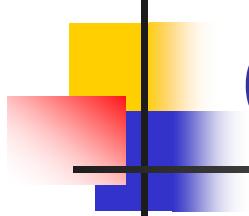
Future WRCs

- Consider expansion of allocation table above 275 GHz – possible agenda item for WRC-10
 - Need to better define passive sensing requirements at least up to 1000 GHz
 - Started process with recent 2-day passive microwave workshop



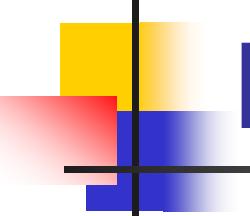
Current Concerns

- Task Group 1/8 (UWB)
 - Compatibility between ultra-wideband devices (UWB) and radiocommunication services
 - U.S. approval to permit UWB devices (car radars) to radiate in 23.6-24 GHz, an exclusively passive band
 - European passive community may prevail in forcing car radars to 76-77 GHz (available in U.S. under Part 15 since 1998)



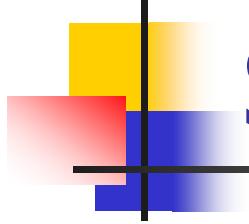
Current Concerns (cont'd)

- Task Group 1/9 (Unwanted emissions into several exclusively passive bands)
 - Continuation of long on-going studies
 - Established to address WRC-07 agenda item 1.20
 - Difficulty in getting U.S. approval of studies
 - Methodology of studies a concern of FCC, i.e. may lead to regulatory solutions



Future Concerns

- Must be ever vigilant to continuing parade of new RF technologies, particularly non-licensed devices (such as Broadband over Power Line or BPL), that may jeopardize access to spectrum for scientific purposes, particularly passive sensing
- Difficulty in working through our RF regulator, NTIA, due to political pressures



Spectrum Planning

- Work with/support Office of Radio Frequency Management
- Focus is frequency access for next generation satellites (GSO and NGSO) and NWS weather radars and radiosondes