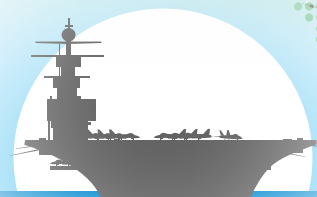


C-Band: Satellite Spectrum Vital to Global Communications

- Widely used by satellites for global communications
- Provides the wide geographic coverage necessary for television and other global communications



- Extremely reliable, even in rainy regions
- Cannot be replaced by bands with narrower beams such as Ku- and Ka-band
- Specific C-band frequencies targeted at 3-7 GHz



C-BAND BY THE NUMBERS

- 169 commercial satellites use C-band spectrum today
- Hundreds of millions of households depend on C-band for television programming including events such as the World Cup and the Olympics
- Billions of dollars invested in technology and ground infrastructure by satellite operators
- \$15 billion spent by industry in the past five years launching 52 C-band satellites
- \$10 billion of additional investment to launch 35 new satellites by 2015
- Once satellites are launched into space, they remain active for up to 20 years and the frequencies cannot be changed aboard the spacecraft

POTENTIAL IMT INTERFERENCE

- Thousands of C-band earth stations are spread throughout the world
- Satellite receivers must be very sensitive to receive signals from the satellites orbiting 22,000 miles from Earth
- Independent technical studies show that satellite and IMT cannot co-exist in the same frequency band
- Numerous cases of harmful interference (and loss of TV signal) have been caused by terrestrial mobile services in the C-band
- Satellite successfully shares spectrum with fixed services, but mobile services cause harmful interference

C-BAND BEING TARGETED

- The International Mobile Telecommunications (IMT) community is requesting more spectrum targeting C-band
- 2015 ITU World Radiocommunications Conference (WRC-15) will consider an IMT proposal to use C-band
- A global designation of the C-band for mobile communications would prompt countries to allow mobile wireless services on the spectrum, causing insurmountable amounts of interference and force satellites to vacate the band

IMPORTANCE OF C-BAND

- C-band spectrum covers and connects entire continents in a single beam
- C-band is used for critical telecommunications and data connectivity around the world
- C-band connects millions of people in remote locations
- The maritime industry relies on C-band
- The United Nations and other organizations use C-band for vital public safety functions and disaster relief efforts

The ITU should protect critical C-band frequencies to ensure that vital satellite communication services continue around the world