

double the cost of a 24 GHz transmitter. The National Aeronautics and Space Administration (NASA) submitted a list of 13 bands that it believes should be designated as restricted because they are used for passive sensing.

7. We are eliminating the requirement that the second and third harmonics from field disturbance sensors operating under § 15.245 in the 24.075–24.175 GHz band, specifically harmonics in the 48.15–48.35 GHz and 72.225–72.525 GHz bands, must comply with the restricted band limits in § 15.209. We are also eliminating the requirement that the second and third harmonics from devices operating under § 15.249 in the 24.0–24.25 GHz band, specifically harmonics in the 48.0–48.5 GHz and 72.0–72.75 GHz bands, must comply with the restricted band limits in § 15.209. These changes will resolve the current discrepancy in our rules concerning the harmonic emission limits for transmitters in the 24 GHz band. It will permit second and third harmonic emission levels of 2500 µV/m at 3 meters from devices operating in the 24.0–24.5 GHz band under the provisions of 15.249 of the rules, and 25,000 µV/m at 3 meters from disturbance sensors operating in the 24.075–24.175 GHz band under § 15.245 of the rules. These changes will benefit manufacturers because equipment will no longer have to meet limits that are tighter than necessary to control interference. These changes will not result in interference to Federal Government operations because there are currently no such operations in the 48.0–48.5 GHz or 72.0–72.75 GHz bands that would be adversely affected by these changes. In addition, there are currently no non-government operations in these bands. We note that there is a pending proceeding that proposes to change from uplinks to downlinks the Fixed Satellite Service allocation in the 71–75.5 GHz band and the Mobile Satellite Service allocation in the 71–74 GHz band. We do not expect that the changes we are adopting would affect any future operations in the 72.0–72.75 GHz band, even if this band were reallocated for satellite downlinks, because the high propagation losses and directivity of signals at these frequencies would significantly attenuate unwanted signals at a satellite receive site. We believe that there may be additional bands above 38.6 GHz which need not be designated as restricted because they do not contain services that require protection. We are continuing our discussions with NTIA to determine which bands above 38.6 GHz should continue to be designated

as restricted and we defer a decision on this matter to a later date.

Data Transmission by Remote Control Devices

8. Section 15.231 of the rules allows the operation of remote control devices in the 40.66–40.70 MHz band and at any frequency above 70 MHz, except in designated restricted bands. There are two separate provisions for operation under this section. The first provision, in paragraph (a) of this rule section, contains field strength limits for devices that transmit control signals, such as those used with alarm systems, door openers and remote switches. A device operated under this paragraph must cease transmission within 5 seconds after being activated automatically or after a manually operated switch is released. Continuous transmissions such as voice and video are not permitted. Data transmissions are permitted only to identify specific transmitters in a system, but no additional data may be sent. For example, a device could transmit a warning when the pressure of a tire is low but could not transmit the actual pressure level, or could remotely activate a thermostat but not transmit the desired temperature setting information. The rule also prohibits periodic transmissions at regular predetermined intervals, although one transmission of not more than one second is permitted once per hour per transmitter in a system to verify the integrity of security transmitters. A device that is employed for radio control purposes during emergencies involving fire, security and safety of life may transmit continuously to signal an alarm. The second provision, in paragraph (e) of this section, allows any type of transmission, including data and transmissions at regular periodic intervals. However, the provisions of this paragraph specify lower field strength limits than paragraph (a). In addition, the provisions of this paragraph limit transmissions to no more than one second, with a silent period between transmissions of at least 30 times the duration of the transmission, but in no case less than 10 seconds. The field strength limits for remote control devices specified in paragraphs (a) and (e) are based on the average value of the measured emissions. For devices that use pulsed emissions, the field strength is determined by averaging over one complete pulse train, including blanking intervals, as long as the pulse train does not exceed 100 milliseconds. In cases where the pulse train exceeds 100 milliseconds, the field strength is

determined by averaging over the 100 millisecond interval that produces the maximum value.

9. In the *NPRM*, the Commission proposed to allow data transmissions by remote control devices operating under § 15.231(a) of the rules, stating that the prohibition on data transmissions appears to be unnecessarily constraining and can be an impediment to the development of new types of devices, and that removing this restriction would not result in an increased potential for harmful interference. It also proposed to remove the prohibition on voice, video and continuous transmissions and on the radio control of toys, because data representing voice or video has no greater interference potential than any other type of data, so there is no need to expressly prohibit them. The Commission sought comment on the potential benefits of such changes to manufacturers. It also sought comment on whether allowing data transmissions would result in an increased proliferation of devices or in devices transmitting for a greater amount of time, and whether there is a need to modify the timing requirements in § 15.231 to avoid interference to other radio services.

10. ADEMCO, Cisco, Enalaysys, Interlogix, ITI, JCI, Lifeline, Linear and Mattel all support removing the restriction on data transmission by remote control devices. Enalaysys submits that removing this restriction will allow manufacturers to make more flexible and imaginative low power remote control devices. JCI states that permitting data transmissions would eliminate confusion about distinguishing between data and recognition codes, which are actually a form of data. ADEMCO believes that permitting data transmissions would enable new products such as comprehensive wireless displays. It also states that the proposed changes would provide for advanced user interfaces, better control capability, improvements in the installation process, and a higher level of security to residential and business premises. Lifeline states that its emergency alert transmitters designed for use by persons living alone would be more useful if voice and data transmissions were permitted, because they would be able to transmit medical data such as blood pressure. Lifeline, Linear, JCI and Mattel support permitting voice transmissions by remote control devices, stating that this change would make devices more useful. JCI and Mattel support permitting video transmissions. Mattel states that this change would permit devices such as video baby monitors to