33. Section 22.602 is amended by revising the undesignated paragraph to read as follows:

§ 22.602 Transition of the 2110–2130 and 2160–2180 MHz channels to emerging technologies.

The 2110–2130 and 2160–2180 MHz microwave channels (formerly listed in § 22.591) have been allocated for use by emerging technologies (ET) services. No new systems will be authorized under this part. The rules in this section provide for a transition period during which existing Paging and Radiotelephone Service (PARS) licensees using these channels may relocate operations to other media or to other fixed channels, including those in other microwave bands. For PARS licensees relocating operations to other microwave bands, authorization must be obtained under Part 101 of this chapter.

* * * * *

34. Section 22.625 is amended by revising paragraph (a) to read as follows:

§ 22.625 Transmitter locations.

* * * * *

(a) *928–960 MHz.* In this frequency range, the required minimum distance separation between co-channel fixed transmitters is 113 kilometers (70 miles).

* * * * *

35. Section 22.655 is amended by revising paragraph (a) to read as follows:

§ 22.655 Channel usage.

* * * * *

(a) In Alaska, channels 42.40, 44.10, 44.20 and 45.90 MHz are allocated for assignment to transmitters providing rural radiotelephone service using meteor burst propagation modes, subject to the provisions of § 22.729.

* * * * *

36. Section 22.725 is amended by revising the section heading and the text of the undesignated paragraph to read as follows:

§ 22.725 Channels for conventional rural radiotelephone stations and basic exchange telephone radio systems.

The following channels are allocated for paired assignment to transmitters that provide conventional rural radiotelephone service and to transmitters in basic exchange telephone radio systems. These channels may be assigned for use by central office or rural subscriber stations as indicated, and interoffice stations. These channels may be assigned also for use by relay stations in systems where it would be impractical to provide rural radiotelephone service without the use of relay stations. All channels have a bandwidth of 20 kHz and are designated by their center frequencies in MegaHertz.

* * * * *

37. Section 22.757 is revised to read as follows:

§ 22.757 Channels for basic exchange telephone radio systems.

The channels listed in § 22.725 are also allocated for paired assignment to transmitters in basic exchange telephone radio systems.

§ 22.805 [Removed]

38. Section 22.805 is removed.

39. Section 22.815 is revised to read as follows:

§ 22.815 Construction period for general aviation ground stations.

The construction period (see § 1.946) for general aviation ground stations is 12 months.

§ 22.871 [Removed]

40. Section 22.871 is removed.

41. Section 22.1003 is revised to read as follows:

§ 22.1003 General eligibility.

Any entity, other than those precluded by section 310 of the Communications Act of 1934, as amended, 47 U.S.C. 310, is eligible to hold a license under this subpart. Applications are granted only if the applicant is legally, financially, technically and otherwise qualified to render the proposed service.

PART 90—PRIVATE LAND MOBILE RADIO SERVICES

42. The authority citation for Part 90 continues to read as follows:

Authority: Sections 4(i), 11, 303(g), 303(r), and 332(c)(7) of the Communications Act of 1934, as amended, 47 U.S.C. 154(i), 161, 303(g), 303(r), 332(c)(7).

43. Section 90.309 is amended by revising paragraph (a)(1) to read as follows:

§ 90.309 Tables and figures.

(a) * * *

(1) Using the method specified in § 1.958 of this chapter, determine the distances (i) between the proposed land mobile base station and the protected cochannel television station and (ii) between the proposed land mobile base station and the protected adjacent channel television station. If the exact mileage does not appear in table A for protected cochannel television stations (or table B for channel 15 in New York and Cleveland and channel 16 in Detroit) or table E for protected adjacent channel television stations, the next lower mileage separation figure is to be used.

* * * * *

[FR Doc. 03–18643 Filed 7–24–03; 8:45 am]

BILLING CODE 6712–01–P

FEDERAL COMMUNICATIONS COMMISSION

47 CFR Parts 2 and 15

[ET Docket No. 03–122; FCC 03–110]

Unlicensed Devices in the 5 GHz Band

AGENCY: Federal Communications Commission.

ACTION: Proposed rule.

SUMMARY: This document proposes to amend the rules governing the operation of unlicensed National Information Infrastructure (U–NII) devices, including Radio Local Area Networks (RLANs), to make available an additional 255 megahertz of spectrum in the 5.47–5.725 GHz band. This will increase the spectrum available to unlicensed devices in the 5 GHz region of the spectrum by nearly 80%, and, it represents a significant increase in the spectrum available for unlicensed devices across the overall radio spectrum. We believe that the increased available capacity gained from access to an additional 255 megahertz of spectrum, coupled with the ease of deployment and operational flexibility provided by our U–NII rules, will foster the development of a wide range of new and innovative unlicensed devices and lead to increased wireless broadband access and investment.

DATES: Written comments are due September 3, 2003, and reply comments are due September 23, 2003.

ADDRESSES: Federal Communications, Marlene H. Dortch, Office of the Secretary, 445 12th Street, SW., Washington, DC 20554. *See* **SUPPLEMENTARY INFORMATION** for filing information.

FOR FURTHER INFORMATION CONTACT: Ahmed Lahjouji, Office of Engineering and Technology, (202) 418–2061; TTY (202) 418–2989, e-mail: *Ahmed.Lahjouji@fcc.gov.*

SUPPLEMENTARY INFORMATION: This is a summary of the Commission's *Notice of Proposed Rule Making,* ET Docket 03–122, FCC 03–122, adopted May 15, 2003, and released June 4, 2003. The full text of this document is available for inspection and copying during regular business hours in the FCC Reference Center (Room CY–A257), 445 12th Street, SW., Washington, DC 20554. The complete text of this document also may

be purchased from the Commission's copy contractor, Qualex International, 445 12th Street, SW., Room CY–B402, Washington, DC 20554. The full text may also be downloaded at: *http://www.fcc.gov.* Alternative formats are available to persons with disabilities by contacting Brian Millin at (202) 418–7426 or TTY (202) 418–7365.

Filings can be sent by hand or messenger delivery, by commercial overnight courier, or by first-class or overnight U.S. Postal Service mail (although we continue to experience delays in receiving U.S. Postal Service mail). The Commission's contractor, Vistronix, Inc., will receive hand-delivered or messenger-delivered paper filings for the Commission's Secretary at 236 Massachusetts Avenue, NE., Suite 110, Washington, DC 20002. The filing hours at this location are 8 a.m. to 7 p.m. All hand deliveries must be held together with rubber bands or fasteners. Any envelopes must be disposed of before entering the building. Commercial overnight mail (other than U.S. Postal Service Express Mail and Priority Mail) must be sent to 9300 East Hampton Drive, Capitol Heights, MD 20743. U.S. Postal Service first-class mail, Express Mail, and Priority Mail should be addressed to 445 12th Street, SW., Washington, DC 20554.

All filings must be addressed to the Commission's Secretary, Office of the Secretary, Federal Communications Commission, 445 12th Street, SW., Washington, DC 20554.

Summary of Notice of Proposed Rule Making

1. The *Notice of Proposed Rule Making,* proposed to amend part 15 of the rules governing the operation of unlicensed National Information Infrastructure (U–NII) devices, including Radio Local Area Networks (RLANs), to make available an additional 255 megahertz of spectrum in the 5.47–5.725 GHz band. This will increase the spectrum available to unlicensed devices in the 5 GHz region of the spectrum by nearly 80%, and, it represents a significant increase in the spectrum available for unlicensed devices across the overall radio spectrum. This action responds to the petition for rule making submitted by the Wireless Ethernet Compatibility Alliance (WECA—now known as the Wi-Fi Alliance). We believe that the increased available capacity gained from access to an additional 255 megahertz of spectrum, coupled with the ease of deployment and operational flexibility provided by our U-NII rules, will foster the development of a wide range of new and innovative unlicensed devices and lead to increased wireless broadband access and investment. Also, this proposal would align the frequency bands used by U–NII devices with those in other parts of the world, thus decreasing development and manufacturing costs for U.S. manufacturers by allowing for the same digital communications products to be used in most other parts of the world.

2. In addition to proposing to make more spectrum available for use by U–NII devices, we proposed several other changes to the Table of Frequency Allocations to accommodate the needs of other radio services operating in the 5 GHz region of the spectrum. Specifically, we proposed to modify the U.S. Table of Frequency Allocations in Part 2 of the rules to upgrade the status of the Federal Government Radiolocation service to primary in the 5.46–5.65 GHz band. We also proposed to upgrade the status of the non-Federal Government radiolocation to primary in the 5.47–5.65 GHz band. We further proposed to add primary allocations for the Federal Government and secondary allocations for the non-Federal Government Space Research Service (active) (SRS) in the 5.35–5.57 GHz band and the Earth Exploration-Satellite Service (active) (EESS) in the 5.46–5.57 GHz band. We also proposed to modify certain technical requirements for U–NII devices in the part 15 rules to protect various radio services against harmful interference. Our proposals are consistent with the U.S. World Radiocommunication Conference 2003 (WRC–03) position regarding this band.

Proposed Changes to the Table of Frequency Allocations

3. We proposed to implement the following allocations consistent with the U.S. proposals to the WRC–03. First, we proposed to modify the U.S. Table of Frequency Allocations in part 2 of the rules to upgrade the status of the Federal Government Radiolocation service to primary in the 5.46–5.65 GHz band. We will similarly upgrade the status of the non-Federal Government Radiolocation service to co-primary in the 5.47–5.65 GHz band so that we do not disadvantage non-Government licensees. These bands are used by non-Federal Government broadcast weather radar stations. We note that the Federal Radiolocation service already has a primary allocation in the 5.35–5.46 GHz band. The elevation in status for Federal Government Radiolocation along with the requirement for DFS as described below will ensure that these existing services are protected from interference from U–NII devices. We further proposed to add primary allocations for the Federal Government and secondary allocations for the non-Federal Government for the Space Research Service (active) (SRS) in the 5.35–5.57 GHz band and the Earth Exploration-Satellite Service (active) (EESS) in the 5.46–5.57 GHz band. We seek comment on these proposals.

4. In the U.S., part 15 unlicensed devices including U–NII devices operate on a non-interference basis and do not operate within radio services listed in the Table of Frequency Allocations. Instead, part 15 devices share spectrum with radio services on the basis that they may not cause any harmful interference and must accept any interference that may be received. Although the WECA petition and comments request an allocation of spectrum for unlicensed U–NII devices, they also request operation under part 15 of the rules. We thus propose to modify our part 15 rules to allow U–NII devices to operate in the 5.470–5.725 GHz band on a non-interference basis, and seek comment on this proposal. We note that WRC–03 is considering a Mobile allocation for the 5.150–5.350 GHz and 5.470–5.725 GHz bands and that some administrations would need a Mobile allocation in the international Table of Frequency Allocations for RLANs or HiperLANs to operate in the bands. Therefore, the U.S. position for WRC–03 supports adoption of an international Mobile allocation so that these devices may operate throughout the world.

5. Table 1 on page 7 of the NPRM summarizes all the allocation proposed herein. We seek comment on the proposed changes to the Table of Frequency Allocations. Commenters are requested to provide a technical analysis to substantiate any claims of interference which may be caused by operations of U–NII devices under these proposed rules.

Proposed Changes to U–NII Rules

6. *Technical requirements.* Under the existing part 15 U–NII rules, there are three different frequency sub-bands available to U–NII devices, each with its own set of technical requirements (*e.g.*, transmit power and antenna gain), based on its sharing environment. U–NII devices operating in the 5.150–5.250 GHz sub-band are restricted to indoor operations and a power limit of 200 mW e.i.r.p. in order to protect co-channel Mobile Satellite Service (MSS) feeder links. Because of the relatively low power limit and indoor usage requirement, this sub-band is most suitable for U–NII devices providing communications links between devices separated by short distances indoors,

such as between computing devices within a room or in adjoining rooms. The 5.250–5.350 GHz sub-band may be used indoors and outdoors and is limited to 1 watt e.i.r.p. This sub-band is shared with the Federal Government Radiolocation Service, Earth Exploration Satellite Service and Space Research Service. This U–NII sub-band is suitable for communications links both within and between buildings such as for campus-wide local area networks. The 5.725–5.825 GHz sub-band may be used indoors and outdoors with power levels up to 4 watts e.i.r.p. This U–NII sub-band is shared with Federal Government Radiolocation, Amateur, ISM, and other part 15 devices and is suitable for communications links within and among buildings and over long distances through use of high-gain antennas.

7. We propose to add the 5.470–5.725 GHz band to the U–NII bands with the same technical requirements that apply to the existing 5.250–5.350 GHz U–NII sub-band. This is consistent with the WECA petition and the U.S. position for the upcoming WRC–03. The Federal Government believes that the power must be limited to 1 watt e.i.r.p. to protect incumbent systems. We also believe that this will best provide for communications among devices within and among buildings where demand is greatest. We expect that the 100 MHz of spectrum that is already available at 5.725–5.825 GHz will remain sufficient for higher power operations. We note in particular that operations over longer distances employ directional antennas that allow for high reuse and sharing of the spectrum, which mitigates the need for additional spectrum for these types of operations. We seek comment on this analysis.

8. ARRL argues that WECA, in its petition, has not demonstrated that U–NII devices operating in the 5.650–5.725 GHz band will avoid causing interference to the Amateur Radio service, which operates on a secondary basis in this band. Our review of ARRL's web site indicates that amateur use of this band is limited to propagation beacons and possibly some limited satellite use. Roeder comments that there is little ready made Amateur equipment for this band and that there are only a few rare mountain top users of this band. We observe that amateurs already share the 5.725–5.825 GHz band with U–NII devices and we are unaware of any complaints of interference. Further, we have proposed to permit a lower e.i.r.p. for U–NII devices operating in the 5.470–5.725 GHz band (*i.e.*, 1 watt e.i.r.p.) than for the existing 5.725–5.825 GHz band (*i.e.*, 4 watts e.i.r.p.). Therefore, we believe that U–NII devices can operate in 5.650–5.725 GHz band without causing interference. Finally, U–NII devices in this band would continue to operate under part 15 of our rules and would be required to eliminate any harmful interference that may occur to the Amateur Radio service. We tentatively conclude that the proposals in the NPRM are adequate to protect the Amateur Radio service from interference. We seek comment on this tentative conclusion.

9. In addition to applying the existing technical requirements for the 5.250–5.350 GHz sub-band to the new 5.470–5.725 GHz band, to ensure protection to existing vital DoD radar operations, we are proposing that U–NII devices operating in both the existing 5.250–5.350 GHz sub-band and the new 5.470–5.725 GHz sub-band employ a listen-before-talk mechanism called dynamic frequency selection (DFS). DFS is an interference avoidance mechanism. Prior to the start of any transmissions, and through constant monitoring, the device (*e.g.*, RLAN) equipped with such a mechanism monitors the radio environment for a radar's presence. If the U–NII device determines that a radar is present, it either moves to another channel or enters a sleep mode if no channels are available. We proposed that U–NII devices be required to continuously monitor their environment for the presence of radars both prior to and during operation. DoD concurs that the use of DFS at the thresholds proposed will provide the necessary protection for its vital radar systems.

10. For systems, where multiple devices operate under a central controller, we propose that only the central controller be required to have DFS capability. We recognize that there may be devices or architectures developed, where remote devices are not under the control of a master device. We seek comment on requiring such devices to have DFS. We also invite comment on how to identify remote units that operate only under the control of a central controller.

11. The U–NII device's ability to reliably detect a radar's presence in the channel depends greatly on the pulse characteristics of the radar. The time for which the radar occupies the U–NII channel (dwell time) also influences the detection probability. The problem arises when the dwell time is very short as is the case for frequency hopping radars. In this case, the subject radar signal is characterized as a receive signal strength (RSS) equal to or greater than the DFS detection threshold level within the U–NII device's channel bandwidth (*e.g.*, typically 18 MHz for devices operating under IEEE 802.11(a)). The radar signal has a bandwidth of 1 MHz and a pulse repetition rate (PRR) in the range 200–4000 pulses/s, where the nominal pulse width is in the range of 1 to 20 microseconds. We seek comment on the minimum number of pulses and the observation time required for reliable detection.

12. We are also proposing to require a transmit power control (TPC) mechanism in the 5.470–5.725 GHz band to further reduce the potential for impact on EESS and SRS operations. TPC is a feature intended to adjust the transmitter's output power based on the signal level at the receiver. TPC will allow the transmitter to operate at less than the maximum power for most of the time. As the signal level at the receiver rises or falls, the transmit power will be decreased or increased as needed. Because TPC equipped devices adjust their transmit power to the minimum necessary to achieve the desired performance, the average interference power from a large number of devices is reduced, the power consumption is minimized and network capacity is increased. Consistent with the U.S. proposals to the WRC–03, we are proposing that U–NII devices employ a TPC mechanism that will ensure a 6 dB drop in power when triggered. We seek comment on what the appropriate triggering mechanism will be. For example, should TPC seek to keep a receiver parameter such as received signal strength, bit error rate, or block error rate below a certain threshold? How long will a pair of U–NII devices have to adjust their link powers? Will it be necessary to require U–NII devices to employ TPC if their maximum power is 3 dB or more below the maximum permitted under the rules? How should TPC be applied to system configurations where multiple devices may operate under the control of a central device.

13. *Test procedures.* We seek comment on appropriate test procedures needed to ensure compliance with the DFS and TPC requirements proposed in this proceeding. We note that the operational requirements for DFS are well defined in the applicable industry standards. We observe that while TPC has been agreed to as a general requirement, its operational details are still under development. Therefore, we particularly seek comment on the means by which devices can be tested for compliance with TPC requirements to implement reduced power without placing unnecessary restrictions on device design. We also seek comment on the extent to which devices under development that may have unique or

novel transmission waveforms may require special measurement instrumentation settings (*e.g.*, integration times) that differ from those used for measuring compliance for existing U–NII band devices.

14. *Transition period for U–NII equipment operating in the 5.250–5.350 GHz band.* U–NII devices currently operate in this band without DFS capability. As a result, we recognize that some period of time will be needed to implement the new DFS requirement for U–NII equipment operating in the 5.250–5.350 GHz band. We propose that the DFS requirement for the 5.250–5.350 GHz band effective for U–NII equipment that is certified after one year from the date of publication of the Report and Order in this proceeding in the **Federal Register**. We believe that this should be sufficient time for equipment devices operating in the 5.250–5.350 GHz band that are imported or shipped in interstate commerce on or after two years from the date of publication in the **Federal Register** comply with these standards. We believe that most affected products will be redesigned within this three-year time frame and that compliance with this proposal would not cause an unreasonable burden on industry. Comments are requested on these proposed transition provisions. We are proposing to require that U–NII equipment operating in the new spectrum at 5.470–5.725 GHz meet all the technical requirements, including DFS and TPC, on the effective date of these rules.

Order Clauses

15. Pursuant to sections 1, 4, 301, 302(a), 303, 307, 309, 316, and 332 of the Communications Act of 1934, as amended, 47 U.S.C. sections 151, 154, 301, 302(a), 303, 307, 309, 316, 332, 334, and 336, the notice of proposed rule making is hereby adopted.

16. It is further ordered that the Commission's Consumer and Governmental Affairs Bureau, Reference Information Center, shall send a copy of this notice of proposed rule making, including the Initial Regulatory Flexibility Analysis, to the Chief Counsel for Advocacy of the Small Business Administration.

Initial Regulatory Flexibility Analysis

17. As required by the Regulatory Flexibility Act of 1980 as amended,[1] the Commission has prepared this present Initial Regulatory Flexibility Analysis (IRFA) of the possible significant economic impact on small entities by the policies and rules proposed in this *Notice of Proposed Rulemaking* (''*NPRM*''). Written public comments are requested on this IRFA. Comments must be identified as responses to the IRFA and must be filed by the deadlines for comments on the *NPRM* provided in paragraph 31 of the item. The Commission will send a copy of the *NPRM*, including the IRFA, to the Chief Counsel for Advocacy of the Small Business Administration (SBA).[2] In addition, the *NPRM* and IFRA (or summaries thereof) will be published in the **Federal Register**.[3]

A. Need for, and Objectives of, the Proposed Rules

18. This *NPRM* proposes to amend part 15 of our rules governing the operation of unlicensed National Information Infrastructure (U–NII) devices, including Radio Local Area Networks (RLANs), to make available an additional 255 megahertz of spectrum in the 5.47–5.725 GHz band for the growth and development of unlicensed wireless broadband networks. This action responds to the petition for rule making submitted by the Wireless Ethernet Compatibility Alliance (WECA—now known as Wi-Fi Alliance).[4]

19. In addition to proposing to make more spectrum available for use by U–NII devices, the Notice also proposes several other rules changes in the 5 GHz band that will further facilitate the use of this band for U–NII devices, while at the same time ensuring sufficient protection for various incumbents in the band. Specifically, it proposes to modify the U.S. Table of Frequency Allocations in part 2 of the rules to upgrade the status of the Federal Government Radiolocation service to primary in the 5.46–5.65 GHz band. It similarly proposes to upgrade the non-Federal Government radiolocation service to primary in the 5.47–5.65 GHz band. It further proposes to add primary allocations for the Federal Government and the non-Federal Government Space Research Service (active) (SRS) in the 5.35–5.46 GHz band and the Earth Exploration-Satellite Service (active) (EESS) and SRS (active) in the 5.46–5.57 GHz band.

20. The *NPRM* also proposes to modify certain technical requirements for U–NII devices in the part 15 rules. In addition to applying the existing technical requirements for the 5.250–5.350 GHz sub-band to the new 5.470–5.725 GHz band, it proposes that U–NII devices operating in both the existing 5.250–5.350 GHz sub-band and the new 5.470–5.725 GHz sub-band employ a listen-before-talk mechanism called dynamic frequency selection (DFS). DFS is an interference avoidance mechanism. Prior to start of any transmissions, and through constant monitoring, the device (*e.g.*, RLAN) equipped with such a mechanism monitors the radio environment for a radar's presence. If the U–NII device determines that a radar signal is present, it either moves to another channel or enters a sleep mode if no channels are available. The Notice seeks comments regarding alternative DFS requirements for various U–NII operating conditions. For example, in point-to-multi-point systems, it may not be necessary that DFS be required for both the controlling station and slaves (*e.g.*, devices designed as clients only) as long as the DFS timing requirements are met. The *NPRM* invites comments on whether DFS should be applied to the controlling stations (*e.g.*, Hub, AP) as well as to slaves.

21. The NPRM also proposes to require a transmit power control (TPC) mechanism in the 5.470–5.725 GHz band to further reduce the potential for impact on EESS and SRS operations. TPC is a feature intended to adjust the transmitter's output power based on the signal level at the receiver. TPC will allow the transmitter to operate at less than the maximum power for most of the time. As the signal level at the receiver rises or falls, the transmit power will be decreased or increased as needed. Because TPC equipped devices adjust their transmit power to the minimum necessary to achieve the desired performance, the average interference power from a large number of devices is reduced, the power consumption is minimized and network capacity is increased. The NPRM seeks comments regarding what the appropriate triggering mechanism might be and how long the U–NII device might need to adjust its power? It also asks for comments on the necessity of requiring all U–NII devices to employ TPC. For example, in some point-to-multipoint system configurations, U–NII devices may be designed to function only with a particular controller or hub. Should only the controlling point or hub be required to employ TPC in this configuration? Some U–NII devices will be designed to operate with a maximum e.i.r.p. below what the rules allow.

[1] *See* 5 U.S.C. 603. The RFA, *see* 5 U.S.C. 601 *et seq.* has been amended by the Contract With America Advancement Act of 1996, Public Law 104–112, 110 Stat. 847 (1996) (''CWAAA''). Title II of the CWAAA is the Small Business Regulatory Enforcement Fairness Act of 1996 (''SBREFA'').

[2] *See* 5 U.S.C. 603(a).

[3] *See* 5 U.S.C. 603(a).

[4] *See* WECA Petition for Rulemaking, RM–10371, filed on January 15, 2002, Public Notice Report No. 2527, January 29, 2002.

Should these devices be exempt from the TPC requirement?

22. The NPRM seeks comment on appropriate test procedures needed to ensure compliance with the DFS and TPC requirements proposed in this proceeding. It notes that the operational requirements for DFS are well defined in the applicable industry standards.[5] It particularly seeks comment on means by which devices can be tested for compliance with TPC requirements to implement reduced power without placing unnecessary restrictions on device design. It also seeks comment on the extent to which devices under development with unique and novel transmission waveforms may require special measurement instrumentation settings (*e.g.*, integration times) that differ from those used for measuring compliance for existing U–NII band devices.

23. U–NII devices currently operate in the 5.250–5.350 GHz band without DFS capability. As a result, some period of time will be needed to implement the new DFS requirement for U–NII equipment operating in the 5.250–5.350 GHz band. The *NPRM* proposes that the DFS requirement for the 5.250–5.350 GHz band effective for U–NII equipment that is certified after one year from the date of publication of the Report and Order in this proceeding in the **Federal Register**. It also proposes to require that all U–NII devices operating in the 5.250–5.350 GHz band that are imported or shipped in interstate commerce on or after three years from the date the adopted rules are published in the **Federal Register** comply with these standards. The Commission believes that most affected products will be redesigned within this three-year time frame and that compliance with this proposal would not cause an unreasonable burden on industry. Comments are requested on these proposed transition provisions. The *NPRM* proposes that U–NII equipment operating in the new spectrum at 5.470–5.725 GHz meet all the technical requirements, including DFS and TPC, on the effective date of these rules.

B. Legal Basis

24. This action is taken pursuant to sections 1, 4, 301, 302(a), 303, 307, 309, 316, 332, 334, and 336 of the Communications Act of 1934, as amended, 47 U.S.C. 151, 154, 301, 302(a), 303, 307, 309, 316, 332, 334, and 336.

[5] *See supra* note 36.

C. Description and Estimate of the Number of Small Entities to Which the Proposed Rules Will Apply

25. The RFA directs agencies to provide a description of, and, where feasible, an estimate of the number of small entities that may be affected by the proposed rules, if adopted.[6] The RFA defines the term ''small entity'' as having the same meaning as the terms ''small business,'' ''small organization,'' and ''small business concern'' under Section 3 of the Small Business Act.[7] Under the Small Business Act, a ''small business concern'' is one that: (1) Is independently owned and operated; (2) is not dominant in its field of operations; and (3) meets any additional criteria established by the Small Business Administration (SBA).[8]

26. A small organization is generally ''any not-for-profit enterprise which is independently owned and operated and is not dominant in its field.''[9] Nationwide, as of 1992, there were approximately 275,801 small organizations.[10] The term ''small governmental jurisdiction'' is defined as ''governments of cities, counties, towns, townships, villages, school districts, or special districts, with a population of less than fifty thousand.''[11] As of 1997, there were approximately 87,453 governmental jurisdictions in the United States.[12] This number includes 39,044 counties, municipal governments, and townships, of which 27,546 have populations of fewer than 50,000 and 11,498 counties, municipal governments, and townships have populations of 50,000 or more. Thus, we estimate that the number of small governmental jurisdictions is approximately 75,955 or fewer.

27. The Commission has not developed a definition of small entities applicable to unlicensed communications devices manufacturers. Therefore, we will utilize the SBA definition application to manufacturers of Radio and Television Broadcasting and Communications Equipment. According to the SBA regulations, unlicensed transmitter manufacturers must have 750 or fewer employees in order to qualify as a small business concern.[13] Census Bureau indicates that there are 858 U.S. companies that manufacture radio and television broadcasting and communications equipment, and the 778 of these firms have fewer than 750 employees and would be classified as small entities.[14] We do not believe this action would have a negative impact on small entities that manufacture unlicensed U–NII devices. Indeed, we believe the actions should benefit small entities because it should make available increased business opportunities to small entities. We request comment on these assessments.

D. Description of Projected Reporting, Recordkeeping and Other Compliance Requirements

28. Part 15 transmitters are already required to be authorized under the Commission's certification procedures as a prerequisite to marketing and importation. Under the proposals in the *NPRM,* manufacturers will be required to demonstrate that U–NII devices operating in the bands 5.250–5.350 GHz and 5.470–5.725 GHz have Dynamic Frequency Selection Capabilities. Additionally, U–NII devices operating in the 5.470–5.725 GHz band must exhibit Transmit Power Control capabilities. The reporting and recordkeeping requirements associated with these equipment authorizations would not be changed by the rule revisions proposed in this *NPRM.*

E. Steps Taken To Minimize Significant Economic Impact on Small Entities and Significant Alternatives Considered

29. The RFA requires an agency to describe any significant alternatives that it has considered in reaching its proposed approach, which may include the following four alternatives (among others): (1) The establishment of differing compliance or reporting requirements or timetables that take into account the resources available to small entities; (2) the clarification, consolidation, or simplification of compliance or reporting requirements under the rule for small entities; (3) the use of performance, rather than design, standards; and (4) an exemption from coverage of the rule, or any part thereof, for small entities.[15]

[6] *See* U.S.C. 603(b)(3).

[7] *Id.* 601(3).

[8] *Id.* 632.

[9] 5 U.S.C. 601(4).

[10] 1992 Economic Census, U.S. Bureau of the Census. Table 6 (special tabulation of data under contract to Office of Advocacy of the U.S. Small Business Administration).

[11] 5 U.S.C. 601(5).

[12] 1995 Census of Governments, U.S. Census Bureau, United States Department of Commerce, Statistical Abstract of the United States (2000).

[13] *See* 13 CFR 121.20 NAICS Code 33420 (SIC Code 3663). Although SBA now uses the NAICS classifications, instead of SIC, the size standard remains the same.

[14] *See* U.S. Dept. of Commerce, *1992 census of Transportation, Communications and Utilities* (issued May 1995), SIC category 3663 (NAICS Code 34220).

[15] 5 U.S.C. 603(c).

F. Federal Rules That May Duplicate, Overlap, or Conflict With the Proposed Rules.

31. None.

List of Subjects in 47 CFR Parts 2 and 15

Communications equipment, Radio, Reporting and recordkeeping requirements.

Federal Communications Commission.

William F. Caton,

Deputy Secretary.

For the reasons discussed in the preamble, the Federal Communications Commission proposes to amend 47 CFR parts 2 and 15 as follows:

PART 2—FREQUENCY ALLOCATIONS AND RADIO TREATY MATTERS; GENERAL RULES AND REGULATIONS

1. The authority citation for part 2 continues to read as follows:

Authority: 47 U.S.C. 154, 302a, 303, and 336, unless otherwise noted.

2. Section 2.106, the Table of Frequency Allocations, is proposed to be amended by revising pages 56 and 57.

§ 2.106 Table of Frequency Allocations.

The proposed revisions and additions read as follows:

* * * * *

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5150-5250 AERONAUTICAL RADIONAVIGATION FIXED-SATELLITE (Earth-to-space) 5.447A 5.446 5.447 5.447B 5.447C	5.367 US211 US307 US344 US370	5150-5250 AERONAUTICAL RADIO-NAVIGATION US260 FIXED-SATELLITE (Earth-to-space) 5.447A US344 5.447C US211 US307	
5250-5255 EARTH EXPLORATION-SATELLITE (active) RADIOLOCATION SPACE RESEARCH 5.447D 5.448 5.448A	5250-5350 RADIOLOCATION 5.333 US110 G59	5250-5350 Radiolocation 5.333 US110	Private Land Mobile (90)
5255-5350 EARTH EXPLORATION-SATELLITE (active) RADIOLOCATION SPACE RESEARCH (active) 5.448 5.448A			
5350-5460 EARTH EXPLORATION-SATELLITE (active) 5.448B AERONAUTICAL RADIONAVIGATION 5.449 Radiolocation	5350-5460 AERONAUTICAL RADIO-NAVIGATION 5.449 RADIOLOCATION G56 SPACE RESEARCH (active) US48	5350-5460 AERONAUTICAL RADIO-NAVIGATION 5.449 Radiolocation Space research (active) US48	Aviation (87) Private Land Mobile (90)
5460-5470 RADIONAVIGATION 5.449 Radiolocation	5460-5470 EARTH EXPLORATION-SATELLITE (active) RADIOLOCATION G56 RADIONAVIGATION 5.449 SPACE RESEARCH (active) US49 US65	5460-5470 RADIONAVIGATION 5.449 Radiolocation Earth exploration-satellite (active) Space research (active) US49 US65	Private Land Mobile (90)
5470-5650 MARITIME RADIONAVIGATION Radiolocation 5.450 5.451 5.452	5470-5570 MARITIME RADIONAVIGATION EARTH EXPLORATION-SATELLITE (active) RADIOLOCATION G56 SPACE RESEARCH active) US50 US65 See next page for 5570-5650 MHz	5470-5570 MARITIME RADIONAVIGATION Earth exploration-satellite (active) Space research (active) US50 US65 See next page for 5570-5650 MHz	Maritime (80) Private Land Mobile (90) See next page for 5570-5650 MHz

International Table			United States Table		FCC Rule Part(s)
Region 1	Reg	n 2 Region 3	Federal Government	Non-Federal Government	
See previous page for 5470-5650 M			5570-5600 MARITIME RADIONAVIGATION RADIOLOCATION G56 US50 US65	5570-5600 MARTIME RADIONAVIGATION RADIOLOCATION US50 US65	Maritime (80) Private Land Mobile (90)
			5600-5650 MARITIME RADIONAVIGATION METEOROLOGICAL AIDS RADIOLOCATION US51 G56 5.452 US65	5600-5650 MARITIME RADIONAVIGATION METEOROLOGICAL AIDS RADIOLOCATION US51 5.452 US65	
5650-5725 RADIOLOCATION Amateur Space research (deep space) 5.282 5.451 5.453 5.454 5.455			5650-5925 RADIOLOCATION G2	5650-5830 Amateur 5.150 5.282	ISM Equipment (18) Amateur (97)
5725-5830 FIXED-SATELLITE (Earth-to-space) RADIOLOCATION Amateur 5.150 5.451 5.453 5.455 5.456	572 RAI Am 5.15	5830 OLOCATION ur 5.453 5.455			
5830-5850 FIXED-SATELLITE (Earth-to-space) RADIOLOCATION Amateur Amateur-satellite (space-to-Earth) 5.150 5.451 5.453 5.455 5.456	583 RAI Amateur Amateur-satellite (space-to-Earth) 5.150 5.453 5.455	5850 OLOCATION		5830-5850 Amateur Amateur-satellite (space-to-Earth) 5.150	
			5.150 US245	5850-5925 FIXED-SATELLITE (Earth-to-space) US245 MOBILE NG160 Amateur 5.150	ISM Equipment (18) Private Land Mobile (90) Amateur (97)
5925-6700 FIXED FIXED-SATELLITE (Earth-to-space) MOBILE			5925-6425	5925-6425 FIXED NG41 FIXED-SATELLITE (Earth-to-space)	Satellite Communications (25) Fixed Microwave (101)
			6425-6525 5.440 5.458	6425-6525 FIXED-SATELLITE (Earth-to-space) MOBILE 5.440 5.458	Auxiliary Broadcasting (74) Cable TV Relay (78) Fixed Microwave (101)

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PART 15—RADIO FREQUENCY DEVICES

3. The authority citation for part 15 continues to read as follows:

Authority: 47 U.S.C. 154, 302, 303, 304, 307 and 544A.

4. Section 15.37 amended by adding paragraph (l) to read as follows:

§ 15.37 Transition provisions for compliance with the rules.

* * * * *

(l) U–NII Equipment operating in the 5.25—5.35 GHz band that are authorized under the certification procedure on or after [1 year after publication of R&O in ET Docket No. 03–122 in the **Federal Register**] shall comply with the DFS requirement specified in § 15.407. All U–NII Equipment operating in the 5.25–5.35 GHz band that are manufactured or imported on or after [2 years from publication of R&O in ET Docket No. 03–122 in the **Federal Register**] shall comply with the DFS requirement specified in § 15.407. Equipment authorized, imported or manufactured prior to these dates shall comply with the requirements for U–NII Equipment operating in the 5.25–5.35 GHz band that were in effect immediately prior to [60 days after publication of R&O in ET Docket No. 03–122 in the **Federal Register**].

5. Section 15.401 is revised to read as follows:

§ 15.401 Scope.

This subpart sets out the regulations for unlicensed National Information Infrastructure (U–NII) devices operating in the 5.15—5.35 GHz, 5.47—5.725 GHz and 5.725—5.825 GHz bands.

4. Section 15.403 is revised to read as follows:

§ 15.403 Definitions.

(a) *Access Point (AP).* A U–NII transceiver that operates either as a bridge in a peer-to-peer connection or as a connector between the wired and wireless segments of the network.

(b) *Available Channel.* A radio channel on which a *Channel Availability Check* has not identified the presence of a radar.

(c) *Average Symbol Envelope Power.* The average symbol envelope power is the average, taken over all symbols in the signaling alphabet, of the envelope power for each symbol.

(d) *Channel Availability Check.* A check during which the U–NII device listens on a particular radio channel to identify whether there is a radar operating on that radio channel.

(e) *Channel Move Time.* The time needed by a U–NII device to cease all transmissions on the Operating Channel upon detection of a signal above the DFS detection threshold. Transmissions during this period will consist of intermittent management and control signals required to facilitate vacating the Operating Channel.

(f) *Digital modulation.* The process by which the characteristics of a carrier wave are varied among a set of predetermined discrete values in accordance with a digital modulating function as specified in document ANSI C63.17–1998.

(g) *Dynamic Frequency Selection (DFS)* is a mechanism that detects signals from other systems and avoids co-channel operation with these systems, notably radar systems. The DFS process shall be required to provide a uniform spreading of the loading over all the available channels.

(h) *DFS Detection Threshold.* The required detection level defined by detecting a received signal strength (RSS) that is greater than a threshold specified, within the U–NII device channel bandwidth.

(i) *Emission bandwidth.* For purposes of this subpart the emission bandwidth shall be determined by measuring the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, that are 26 dB down relative to the maximum level of the modulated carrier. Determination of the emissions bandwidth is based on the use of measurement instrumentation employing a peak detector function with an instrument resolution bandwidth approximately equal to 1.0 percent of the emission bandwidth of the device under measurement.

(j) *In-Service Monitoring.* Monitoring of the *Operating Channel* to check that a co-channel radar has not moved or started operation within range of the U-NII device.

(k) *Non-Occupancy Period.* The required period in which, once a channel has been recognized as containing a radar signal by a U–NII device, the channel will not be selected as an available channel.

(l) *Operating Channel.* Once a U–NII device starts to operate on an *Available Channel* then that channel becomes the *Operating Channel.*

(m) *Peak Power Spectral Density.* The peak power spectral density is the maximum power spectral density, within the specified measurement bandwidth, within the U–NII device operating band.

(n) *Peak Transmit Power.* The maximum transmit power as measured over an interval of time of at most 30/B (where B is the 26 dB emission bandwidth of the signal in hertz) or the transmission pulse duration of the device, whichever is less, under all conditions of modulation.

(o) *Power Spectral Density.* The power spectral density is the total energy output per unit bandwidth from a pulse or sequence of pulses for which the transmit power is at its peak or maximum level, divided by the total duration of the pulses. This total time does not include the time between pulses during which the transmit power is off or below its maximum level.

(p) *Pulse.* A pulse is a continuous transmission of a sequence of modulation symbols, during which the average symbol envelope power is constant.

(q) *RLAN.* Radio Local Area Network.

(r) *Transmit Power.* The total energy transmitted over a time interval of at most 30/B (where B is the 26 dB emission bandwidth of the signal in hertz) or the duration of the transmission pulse, whichever is less, divided by the interval duration.

(s) *Transmit Power Control (TPC).* A feature that enables a U-NII device to dynamically switch between several transmission power levels in the data transmission process.

(t) *U–NII devices.* Intentional radiators operating in the frequency bands 5.15—5.35 GHz and 5.470—5.825 GHz that use wideband digital modulation techniques and provide a wide array of high data rate mobile and fixed communications for individuals, businesses, and institutions.

7. Section 15.407 is amended by revising paragraph (a)(2), redesignating paragraphs (b)(3) through (b)(6) as paragraphs (b)(4) through (b)(7), adding a new paragraph (b)(3) and paragraph (h) to read as follows:

§ 15.407 General Technical Requirements.

(a) * * *

(2) For the 5.25–5.35 GHz and 5.47–5.725 GHz bands, the peak transmit power over the frequency bands of operation shall not exceed the lesser of 250 mW or 11 dBm + 10log B, where B is the 26 dB emission bandwidth in megahertz. In addition, the peak power spectral density shall not exceed 11 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the peak transmit power and the peak power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

* * * * *

(b) * * *

(3) For transmitters operating in the 5.47–5.725 GHz band: all emissions outside of the 5.47–5.725 GHz band

shall not exceed an EIRP of -27 dBm/MHz.

* * * * *

(h) *Transmit Power Control (TPC) and Dynamic Frequency Selection (DFS).*

(1) *Transmit power control (TPC).* U–NII devices operating in the 5.47–5.725 GHz band shall employ a TPC mechanism. The U–NII device is required to have the capability to operate at least 6 dB below the mean EIRP value of 30 dBm.

(2) *Dynamic Frequency Selection (DFS).* U–NII devices operating in the 5.25–5.35 GHz and 5.47–5.725 GHz bands shall employ a DFS mechanism to detect the presence of radar systems and to avoid co-channel operation with radar systems. The minimum DFS detection threshold for devices with a maximum e.i.r.p. of 200 mW to 1 W is -64 dBm. For devices that operate with less than 200 mW e.i.r.p. the minimum detection threshold is -62 dBm. The detection threshold is the received power averaged over 1 microsecond referenced to a 0 dBi antenna.

(i) *Operational Modes.* The DFS requirement applies to the following operational modes:

(A) The requirement for channel availability check time applies in the master operational mode; and

(B) The requirement for channel move time applies in both the master and slave operational modes.

(ii) *Channel Availability Check Time.* A U–NII device shall check if there is a radar system already operating on the channel before it can initiate a transmission on a channel and when it has to move to a new channel. The U–NII device may start using the channel if no radar signal with a power level greater than the interference threshold values, as listed in (h)(2) of this section, is detected within 60 seconds.

(iii) *Channel Move Time.* After a radar's presence is detected, all transmissions shall cease on the operating channel within 10 seconds. Transmissions during this period will consist of normal traffic for typically less than 100 ms and a maximum of 200ms after detection of the radar signal. In addition, intermittent management and control signals can be sent during the remaining time to facilitate vacating the operating channel. The aggregate time of the intermittent management and control signals are typically less than 20 ms.

(iv) *Non-occupancy Period.* A channel that has been flagged as containing a radar system, either by a channel availability check or in-service monitoring, is subject to a non-occupancy period of at least 30 minutes. The non-occupancy period starts at the time when the radar system is detected.

[FR Doc. 03–18971 Filed 7–24–03; 8:45 am]

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DEPARTMENT OF THE INTERIOR

Fish and Wildlife Service

50 CFR Part 18

RIN 1018–AH92

Marine Mammals; Incidental Take During Specified Activities

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Proposed rule.

SUMMARY: We, the Fish and Wildlife Service, are proposing regulations that would authorize the incidental, unintentional take of small numbers of polar bears and Pacific walrus during year-round oil and gas industry (Industry) exploration, development, and production operations in the Beaufort Sea and adjacent northern coast of Alaska. Industry operations for the covered period are similar to and include all activities covered by the 3-year Beaufort Sea incidental take regulations that were effective from March 30, 2000, through March 31, 2003 (65 FR 16828). We are proposing that this rule be effective for approximately 16 months from date of issuance.

We will also be conducting an evaluation for a new 5-year regulation based on a petition received from Industry on August 23, 2002. We will work to assess the effects of Industry activities for the requested period (5 years) and expect to publish a longer term proposed rule during the period that this rule is in effect.

We propose a finding that the total expected takings of polar bear and Pacific walrus during oil and gas industry exploration, development, and production activities will have a negligible impact on these species and no unmitigable adverse impacts on the availability of these species for subsistence use by Alaska Natives. We base this finding on the results of 9 years of monitoring and evaluating interactions between polar bears, Pacific walrus, and Industry, and on oil spill trajectory models, polar bear density models, and independent population recruitment and survival models that determine the likelihood of impacts to polar bears should an accidental oil release occur. We are seeking public comments on this proposed rule.

DATES: Comments on this proposed rule must be received by August 25, 2003.

ADDRESSES: You may submit comments by any of the following methods:

1. By mail to: Craig Perham, Office of Marine Mammals Management, U.S. Fish and Wildlife Service, 1011 East Tudor Road, Anchorage, AK 99503.

2. By Fax to: (907) 786–3816.

3. By Internet, electronic mail by sending to: *FW7MMM@fws.gov.* Please submit Internet comments as an ASCII file avoiding the use of special characters and any form of encryption. Please also include ''Attn: RIN 1018–AH92'' and your name and return address in your Internet message subject header. If you do not receive a confirmation from the system that we have received your Internet message, contact us directly at U.S. Fish and Wildlife Service, Office of Marine Mammals Management, (907)–786–3810 or 1–800–362–5148.

4. By hand-delivery to: Office of Marine Mammals Management, U.S. Fish and Wildlife Service, 1011 East Tudor Road, Anchorage, Alaska 99503.

Comments and materials received in response to this action are available for public inspection during normal working hours of 8 a.m. to 4:30 p.m., Monday through Friday, at the Office of Marine Mammals Management, U.S. Fish and Wildlife Service, 1011 E. Tudor Road, Anchorage, Alaska 99503.

FOR FURTHER INFORMATION CONTACT: Craig Perham, Office of Marine Mammals Management, U.S. Fish and Wildlife Service, 1011 East Tudor Road, Anchorage, AK 99503; Telephone 907–786–3810 or 1–800–362–5148; or Internet *craig_perham@fws.gov.*

SUPPLEMENTARY INFORMATION:

Background

Section 1371(a)(5)(A) of the Marine Mammal Protection Act (Act) (16 U.S.C. 1361–1407) gives the Secretary of the Interior (Secretary) through the Director of the U.S. Fish and Wildlife Service (we) the authority to allow the incidental, but not intentional, taking of small numbers of marine mammals, in response to requests by U.S. citizens (you) [as defined in 50 CFR 18.27(c)] engaged in a specified activity (other than commercial fishing) in a specified geographic region. If regulations allowing such incidental taking are issued, we can issue Letters of Authorization (LOA) to conduct activities under the provisions of these regulations when requested by citizens of the United States.

We propose to authorize the incidental taking of polar bears and Pacific walrus based on our proposed