W5YI

America's Oldest Ham Radio Newsletter

REPORT

Up to the minute news from the world of amateur radio, personal computing and emerging electronics. While no guarantee is made, information is from sources we believe to be reliable.

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In This Issue...

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FCC Proposes Rule Changes to Unlicensed Part 15 Devices

On October 15th, the FCC released a lengthy (35 pages, single spaced) *Notice of Proposed Rulemaking* (NPRM) and *Order* seeking to review and update certain rule sections applying to unlicensed devices.

Background

There has been a significant increase in the number of unlicensed Part 15 devices in recent years. Such devices are increasingly relied upon for many everyday functions in consumers' lives. Examples of common Part 15 devices include cordless phones, computers, baby monitors, and garage door openers.

"The range of applications and technologies for these types of devices continues to evolve at a rapid pace," FCC observed. "For example digital processing speeds of personal computers are above 1500 MHz as compared to only 25 MHz about ten years ago. Cordless telephones now operate at higher frequencies with digital modulation techniques providing users with improved performance and additional service features."

In addition, new Part 15 equipment and systems are being developed for business applications such as high speed, high capacity wireless local area networks (LANs).

The FCC said "Part 15 rules have been highly successful in permitting the development of new types of unlicensed devices while protecting authorized users of the radio spectrum from harmful interference. Millions of Part 15 devices operate at the current limits without any significant interference issues." In ET Docket 01-278 the FCC proposed to:

1.) Modify limits and restrictions on emissions from certain unlicensed or Part 15 devices above 2 GHz.

Part 15 of the rules contains the radiated emission limits for intentional radiators, such as transmitters, and for unintentional radiators, such as radio receivers, computers and VCRs. The limits are intended to minimize the possibility of unlicensed Part 15 devices causing interference to licensed radio services.

The last significant change to these limits was made in 1989, so they have been essentially unchanged for over ten years. During this period, the commercial use of spectrum above 2 GHz has increased significantly. Licensed and unlicensed devices operating above 2 GHz have proliferated, in part because advances in technology have made such devices more affordable.

2.) Require that radar detectors be subject to emission limits in order to prevent interference to certain satellite operations.

The FCC has received a number of reports of interference caused to very small aperture satellite terminals (VSATs) by radar detectors. VSATs are used for a number of purposes including linking

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retail establishments with remote computers for verifying credit card transactions. Radar detectors are causing interference to VSATs resulting in data transmission errors and sometimes a complete disruption of message transmissions. Because radar detectors are mobile and can emit strong signals, their use has a real impact on satellite operations in many locations.

Part 15 requires certain receivers to meet radiated emission limits to minimize the possibility of interference. The rules currently require only receivers that tune in the range of 30-960 MHz and Citizen's Band receivers to comply with the limits.

Radar detectors are currently exempt from complying with the Part 15 emission limits because they tune above 960 MHz. They are designed to monitor for the presence of police radar in several frequency bands, including the 10.50-10.55 GHz, 24.05-24.25 GHz and 33.4-36.0 GHz bands.

The FCC is asking for comments on whether there is a need to require radar detectors and other receivers that tune above 960 MHz to comply with emission limits to minimize the possibility of interference, and if so, what are the appropriate limits.

3.) Eliminate the prohibition on data transmissions and make other changes to rules governing Part 15 remote control devices.

Section 15.231 of the rules allows the operation of remote control devices in the 40 MHz band and above 70 MHz. The FCC believes that the prohibition on data transmissions is unnecessarily constraining and can be an impediment to the development of new types of devices.

The Commission does not believe that removing this restriction will result in an increased potential for interference and is proposing to remove the restriction and to remove the prohibition on voice and video transmissions.

4.) Modify the rules for radio frequency identification systems to harmonize our rules with those in other parts of the world and to allow for improved operation.

Radio frequency identification (RFID) systems use radio signals to track and identify items such as shipping containers and merchandise in stores. A system typically consists of a tag mounted on the item to be identified, and a transmitter/receiver unit that interrogates the tag and receives identification data back from the tag. The tag may be a self-powered transmitter, or it may receive power from the interrogating transmitter. RFID systems can operate in a number of frequency bands under Part 15.

5.) Simplify the labeling requirement for manufacturer self-authorized equipment.

Many unintentional radiators under Part 15 of the rules, including personal computers, VCRs and radio receivers, are authorized through the Declaration of Conformity (DoC) procedure. DoC is a self-approval procedure in which the manufacturer has the equipment tested for compliance at a laboratory accredited to make the required measurements.

Equipment authorized through the DoC procedure must include the manufacturer's trade name, the equipment model number, the FCC logo, the phrase "For Home or Office Use", and a statement as to whether the complete device was tested for compliance or whether it was assembled from tested components.

The phrase "For Home or Office Use" on the DoC label is unnecessary, and requiring it to be included means that manufacturers must use a larger label on a device. The FCC wants to delete the requirement for the phrase "For Home or Office Use" to simplify the label.

6.) Make other changes to update and correct FCC rules.

The FCC made a large number of minor "housekeeping" amendments to Parts 2, 15 and 18.

Petitions for Rulemaking addressed

In addition, the *National Council for Information Technology Standardization Technical Committee B10* (NCTIS B10) and *SAVI Technology, Inc.* (SAVI) filed petitions for rule making requesting changes to the Part 15 requirements for radio frequency identification systems.

NCITS B10 Petition for Rule Making.

Section 15.225 of the rules permits intentional radiators, such as unlicensed RFID devices, to operate in the 13.56 MHz band with a maximum field strength of 10,000 µV/m measured at a distance of 30 meters. Devices operating outside of the 13.56 MHz band must not exceed 30 µV/m measured at a distance of 30 meters.

The "NCITS B10" wants to harmonize the U.S. rules with the standards for RFID devices used in Europe and Australia. It argues that harmonizing the rules would lower development costs for manufacturers and requests that the maximum allowable field strengths be increased.

There would be significant benefits to the public if the FCC were to modify the rules. For example, increased range and faster data transmission rates would allow improved object tracking, inventory management, access control, airline passenger safety, airline baggage tagging and handling, electronic retail transaction processing, and "smart labeling" of foods, medicines and chemicals. The FCC agreed that the proposed emission levels are not likely to create significant interference to other services.

SAVI Petition for Rule Making

Radio frequency identification (RFID) systems use radio signals to track and identify items such as shipping containers and merchandise in stores. A system typically

consists of a tag mounted on the item to be identified, and a transmitter/receiver unit that interrogates the tag and receives identification data back from the tag. The tag may be a self-powered transmitter, or it may receive power from the interrogating transmitter. RFID systems can operate in a number of frequency bands under Part 15.

SAVI Technology, Inc. (SAVI) states that it has developed RFID tags operating at 433 MHz because unlicensed operation is permitted worldwide at that frequency. SAVI asked that the FCC permit an increase in the maximum field strength and duration of transmissions at 433 MHz to speed up and make more reliable the transfer of data from a shipping container. As an alternative, SAVI requests that the Commission establish a new rule section specifically for RFID tags operating in the 420-450 MHz range.

United Parcel Service and others supported the SAVI proposal, stating that increasing the data transmission capability of RFID tags would allow easier identification of the contents of containers, thus simplifying the shipping process and reducing costs.

The ARRL and other amateur radio operators strongly opposed the petition, claiming that operation could result in interference to amateur 70-cm operations. ARRL Exec. V.P. David Sumner, K1ZZ said the RFID proposal ":...is contrary to the whole philosophy of the Part 15 rules" and more properly belongs on frequencies regulated by Part 18 Industrial, Scientific and Medical (ISM) rules.

SAVI argued that their RFID systems operate in commercial areas where there are few amateur operations, and that the type of modulation used by their systems is unlikely to interfere with the equipment used by radioamateurs.

The FCC agreed SAVI that changes to Part 15 to allow more advanced RFID systems in the 433 MHz band would serve the public interest and proposed to allow such devices in the 425-435 MHz band.

As proposed by SAVI, transmissions would be limited to 120 seconds with at least a 10 second silent period between transmissions, except that retransmissions would be permitted in case of data errors.

Test Procedure for Unlicensed PCS Equipment

Section 15.31 lists the measurement procedures used to determine whether a Part 15 device complies with the rule. The FCC is proposing to incorporate a new ANSI C63 Committee measurement procedure for unlicensed PCS equipment, ANSI C63.17-1998.

Exemption for Very Low-Powered Devices

Part 15 requires most unlicensed devices to be certified regardless of how low an operating power they use before they can be marketed. The FCC wants to exempt devices operating below 490 kHz from certification if the maximum field strength emitted is more than 40 dB below the applicable Part 15 limits.

Information to the User

Manufacturers are required to supply certain information to the users of products operating under Part 15. The FCC proposes that manufacturers be permitted to provide this information in various forms including paper, a computer disk, a CD-ROM or over the Internet.

Family Radio Service Equipment Measurements

In 1996, the FCC established the Family Radio Service (FRS) as a private, two-way, very short distance voice communications service for family and group activities. The FCC clarified that the FRS frequency stability measurements are to be made from -20 °C to +50 °C

Alerting manufacturers to high power operation

Section 15.17 was originally adopted in 1989, and has not been modified since that time. This is a simple rule enacted to alert manufacturers to the possibility that high-power radio services (such as Amateur Radio) could cause interference to their devices operating under Part 15 of the rules. Since that time, the number of manufacturers and the number of Part 15 devices have increased.

ARRL believes that the rule continues to be necessary because it alerts manufacturers of radio frequency devices of possible electromagnetic compatibility issues prior to obtaining an equipment authorization.

However, ARRL believes that the rule addresses only half of the cautionary information to manufacturers, and that the rule should also warn manufacturers to avoid specification of operating frequencies for their devices that could result in interference to sensitive radio services. The League said that this change could avoid the need for and cost of after- market interference resolution.

The FCC said no additional information is necessary and that the matter is already adequately covered in the rules. For example, Part 15 contains limits that are designed to minimize the risk of interference caused to all authorized radio services. Further, Part 15 equipment is required to operate on a non-interference basis, and users of such equipment must cease operation in the event that interference occurs.

The FCC said "We believe that these rules are sufficient to protect against harmful interference to authorized radio services and that additional advisory language in Section 15.17 is unnecessary. Therefore, the ARRL request to modify Section 15.17 is denied."

Comments on the *Notice of Proposed Rulemaking* are due seventy-five days after publishing in the Federal Register. Reply comments are due thirty days later.

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AMATEUR RADIO STATION CALL SIGNS

...sequentially issued as of the first of November 2001:

Radio District	Group A Extra	Group B Advanced	Group C Tech/Gen.	Group D Novice
0 (*)	AB0SL	KI0RZ	(***)	KC0LOR
1 (*)	AA1YZ	KE1LZ	(***)	KB1HIR
2 (*)	AB2RE	KG2RN	(***)	KC2IPS
3 (*)	AA3XX	KF3EC	(***)	KB3HFI
4 (*)	AG4LS	KV4FX	(***)	KG4PVT
5 (*)	AD5GB	KM5XL	(***)	KD5QEA
6 (*)	AE6AE	KR6ET	(***)	KG6IMB
7 (*)	AC7PJ	KK7WZ	(***)	KD7OSV
8 (*)	AB8LO	KI8KC	(***)	KC8SKQ
9 (*)	AB9DJ	KG9RA	(***)	KC9ALZ
N. Mariana	NH0Z	AH0BB	KH0NO	WH0ABP
Guam	(**)	AH2DO	KH2VO	WH2AOC
Hawaii	(**)	AH6RC	KH7ZZ	WH6DGP
Am.Samoa	AH8W	AH8AI	KH8DP	WH8ABF
Alaska	(**)	AL7RR	KL1FD	WL7CVJ
Virgin Isl.	(**)	KP2CS	NP2LU	WP2AIN
Puerto Rico	WP3T	KP3BL	WP3NP	WP4NOW

* = All 1-by-2 and 2-by-1 call signs have all been assigned. AA-AK-by-2 now being assigned.

** = All 2-by-1 call signs have been assigned.

***= Group "C" (N-by-3) call signs have all been allocated in all districts. (K-by-3 and W-by-3 are not assigned under the sequential call sign system. Available only to the Vanity Call Sign system.)

Note: The following prefix numerals are now allocated to Puerto Rico (KP, NP, WP3 or 4), Hawaii (AH, KH, NH, WH6 or 7) and Alaska (AL, KL, NL WL1-0)

[Source: FCC Amateur Service Database, Washington, DC]

KENWOOD SEEKS TO MARKET ITS "SKY COMMAND" SYSTEM

The Kenwood Communications Corporation is once again trying to find a way to permit auxiliary station operation in the amateur two-meter band. The FCC has accepted a *Petition for Rulemaking* from them, assigned it file number: RM-10313 and put it out for preliminary comment. Although not mentioned in the petition, Kenwood wants to be able to market their "Sky Command" remote control equipment to radioamateurs in the United States.

Two years ago, Kenwood asked that the FCC issue a declaratory ruling that its "Sky Command" system complied with existing rules or alternatively, issue a waiver so that it could be used on the ham bands.

Sky Command allows radioamateurs to control a fixed HF station by using a 70-cm frequency to transmit audio and control commands to a dualband transceiver at the remote station and a 2-meter frequency to transmit received audio via the remote station's Sky Command transceiver to the operator's transceiver. The VHF channel also contains a Morse code ID.

The ARRL opposed the Kenwood request on the basis that the two meter band was already heavily used and that Section 97.201(b) permits auxiliary operation only on certain frequencies above 222.15 MHz. Kenwood's initial position was that the two meter link amounted to third party communications under the supervision of a control operator.

The League didn't buy that explanation stating that third-party communications related to message content and not to station equipment configuration. ARRL added that Kenwood could remedy its problem by simply exporting its dualband TH-89 transceiver to the United States which operates in the 430 MHz and 1.2 GHz bands - both of which are approved for auxiliary operation. It is currently available only in Japan.

The FCC agreed with the ARRL and on July 28, 2000 confirmed that the system did not meet Amateur Service rules. It also declined to grant a waiver since the request could not be covered by the FCC's guideline for issuing a waiver. The ARRL has since refused to permit Sky Command advertisements in their QST monthly journal.

Kenwood said that last year's FCC "...determination did not address the utility of modifying the frequency restriction on auxiliary operation in the Commission's rules." It continues to believe that amateur auxiliary operation is "significantly over regulated" and contrary to the FCC's trend toward less regulation and more flexibility.

The latest attempt to win approval of its "Sky Command" system is an 8-page *Petition for Rule Making* filed May 1, 2001 by Thomas C. Wineland, President of Kenwood USA. He wants Section 97.201(b) amended to read:

> **§97.201 Auxiliary station**
>
> (b) An auxiliary station may transmit only on the 2 m and shorter wavelength bands, except the 144.0-144.5 MHz, the 145.9-146.0 MHz, 220.0-220.5 MHz, 431-433 MHz and 435-438 MHz segments.

"There are simplex channels set aside in band plans for point-to-point FM operation which could easily accommodate newer types of itinerant auxiliary operation," Kenwood said "... such as mobile and portable links to base stations for remotely controlling and conducting HF station operation"

Kenwood contends that this single rule change would "permit increased flexibility in the use of the amateur bands..." while protecting spectrum "...used by convention and accepted band plans for SSB and CW operation and for amateur satellite operation."

In 1986, the FCC turned down a somewhat similar petition by the Quarter Century Wireless Association to remove frequency restrictions on auxiliary operation.

FCC TO IMPLEMENT NEW REGISTRATION NUMBERS

On October 23, 2001 the FCC released a Public Notice about the use of the new FCC Registration Numbers (FRN) effective December 3, 2001.

What does the new FRN mean for current ULS licensees?

On December 3, 2001, the current ULS login screen that requires your TIN (Tax Payer Identification Number ...which for individuals is your Social Security Number) and ULS password will be changed. The new login screen will allow you to enter either your TIN or FRN and will require your CORES password. For radioamateurs, your CORES password will be the same as your current ULS password.

The FCC recommends that you begin using your FRN to login on December 3 but you will still be able to continue using your TIN for an indefinite period of time.

If you choose to login with your TIN, the system will query CORES to locate the FRN associated with that TIN, and the following message will be displayed: "Your FCC Registration Number (FRN) is ##########. Please record this FRN and use it instead of your TIN for all future transactions with the FCC." Your FRN will appear in place of the hatch marks. Click "OK" to continue.

For those amateurs who have over the last two years been registered in ULS, most of them have been assigned and have an FRN associated with their TIN/ULS registration. The FCC plans to "auto-register" those radioamateurs presently registered in ULS but who do not yet have an FRN prior to the December 3rd launch date. When the transition to CORES has been completed, your FRN will appear in place of the Licensee ID on the ULS License Search results screen. After December 3rd, all amateurs will be automatically registered and receive an FRN as part of the renewal, modification or new licensee process. You can also register in CORES before you hold an amateur license.

You may also register with the Commission Registration System (CORES) and receive an FRN number by clicking the "Register in CORES" button and selecting 'Register and receive your FRN' on the CORES Home Page." After completing your registration, you will be presented with a link back to the ULS TIN/Call Sign registration login page where you can provide the appropriate call sign.

Another important change for current users is that updating information in CORES (such as an address change) does not update this information in ULS. You must file an "Administrative Update" (AU) application to update information pertaining to your license.

If you file a paper application manually

As of December 3, 2001, you may provide your FRN on all paper forms submitted manually to the FCC where a TIN was previously required. If you do not have access to your FRN, contact the CORES Help Desk by (toll free) phone, (877) 480-3201 or by e-mail, <CORES@fcc.gov>. To obtain your FRN manually, submit an FCC Form 160 which is available on the FCC's web site at <http://www.-fcc.gov/formpage.html>, or from the FCC's fax-on-demand service by dialing (202) 418-0177.

How can I find my FRN?

An easy method for finding your FRN for a particular license is to query the ULS "License Search" function. Enter a specific call sign, and select "Search." Your FRN will appear on your License record. Some of the publicly available online amateur databases may also provide your FRN.

Performing a License Search in ULS

The following instructions are for electronically searching for a specific license on file with the FCC.

(1.) Connect to the FCC Network through the World Wide Web at <http://www.fcc.gov/wtb/uls>.

(2.) Verify that Java and JavaScript are enabled in your web browser. Additionally, the preferences must specify "Accept all cookies." Refer to your web browser Help function for more information.

(3.) On the Universal Licensing System main page, click the "License Search" button, located in the center of the page or under the heading "ULS Online Systems," on the menu on the left-hand side of the page.

(4.) Select "General" to search for a license. Then click the "Continue" button.

(5.) The License Search screen appears. This screen contains several data entry fields used for specifying the criteria for your license search. On the License Search screen, specify the search criteria necessary to locate the desired license such as the callsign. You must specify search criteria in at least one field.

(6.) After you have specified the desired search criteria. click the Search button. The system will scan the database for any licenses matching the search criteria. The matching license files will be listed on the Search Results screen. The Search Results screen will identify the call sign, last action date, licensee name, radio service code, and Licensee ID for each license returned in the query. A message on the Search Results screen will indicate if no matches were found for the specified search criteria. Click the New Search button and specify your search criteria again.

(7.) To view a license, click it's underlined call sign.

(8.) To access additional information about the license (such as Amateur's license class) , click the down

arrow in the License Options field and select "Amateur Administration." from the drop-down menu of options and click the Go button.

(9.) To obtain the licensee's FRN, click on the "Licensee Information" button at the top of the screen. Note that there are two "Licensee Information" buttons. The second one from the left positions you further down the screen.

(10.) To begin a new search, click the down arrow in the Other Options field to obtain the drop-down menu of options. Click New Search from the Other Options menu and then click the Go button (or simply click on your browser back button.)

How do I obtain an FRN?

Some radioamateurs were previously issued an FRN. If you do not currently have an FRN and would like to obtain one, you should register your TIN and call sign prior to November 28, 2001. After this date, you should access CORES registration from the ULS TIN/Call Sign registration screen. This method will ensure that you have the ability to associate call signs with your newly issued FRN.

Effective November 28, 2001, follow these steps: Select "TIN/Call Sign Registration" from the ULS homepage. Choose the "Register Now" button, and click "Continue" to be automatically linked to CORES. Provide the required information and you will receive a confirmation screen displaying your FRN number. Record this number for future reference. Choose the ULS link on the confirmation screen to return to ULS.

How do I obtain a CORES password?

CORES passwords will be the same as current ULS passwords. However, if your ULS password contained less than 6 characters, or more than 15 characters, it has automatically been adjusted to the new required length. CORES has placed asterisk (*) symbols at the end of passwords that were less than 5 characters to make them 6 characters in length. Similarly, CORES eliminated all characters following the 15th place.

If you have registered manually in ULS and do not have your password, please contact the ULS Help Desk at (202) 414-1250 or by e-mail at ulscomm@fcc.gov. If you register manually after December 3, 2001, you will receive a letter via postal mail containing your Password. For help after December 3, contact the CORES Help Desk by (toll free) phone at (877) 480-3201, or by e-mail, <CORES@fcc.gov>.

How does FRN affect filing through a VEC?

If you submit applications through a third party, such as a Volunteer Exam Coordinator (VEC) or Amateur Radio Club Administrator or Commercial Operator License Exam Managers (COLEMS), you may have been automatically registered in CORES. It is also possible that you have received multiple FRNs. To verify the status of your FRN(s), choose "License Search" from the ULS homepage, and query the ULS license database by call sign. Your FRN will be displayed on your license record.

For application purposes, please make sure that you submit the correct FRN, TIN, or Licensee ID to your VEC. When new applications are granted, they are associated with the FRN-TIN provided on the application.

How will CORES affect my ATIN(s)?

The use of ATINS in ULS is being phased out. As of December 3, 2001, ATINS will no longer be assigned, and you will only be able to use your current ATIN(s) on the ULS/TIN login screen during a short transitional period. Foreign amateurs that previously used ATINS must now be registered in CORES. Follow the "Register Now" link in ULS to access CORES registration. Amateur Clubs may register in CORES or simply leave the FRN/-TIN blank and they will be "auto-registered" in CORES.

Is it Possible to Deactivate FRNs?

Yes, but we strongly recommend that prior to deactivating an FRN, you check the ULS licensing database to make sure no active call signs are associated with the FRN you plan to deactivate. You will not be able to file license applications, including Renewals and Modifications, for a call sign if the FRN associated with it has been deactivated. If you have inadvertently deactivated an FRN with an existing call sign, contact the CORES Help Desk by phone, (877) 480-3201, or by e-mail at: <CORES@fcc.gov>.

For Further Information or Assistance

Effective December 3, 2001, the CORES Help Desk will be the contact for all password-related issues. For assistance contact the CORES Help Desk by (toll free) phone, (877) 480-3201 or by e-mail: <CORES@fcc.gov>. CORES Help Desk hours are Monday–Friday from 7 a.m. to 10 p.m. Eastern Time (ET), Saturday 8 a.m. to 7 p.m. ET, and Sunday 12 noon–6 p.m. ET. Hours will be extended as of December 3.

FCC Technical Support Hotline (ULS Help Desk): (202) 414-1250 or via e-mail at <ulscomm@fcc.gov>. Contact the Technical Support Hotline about questions concerning computer access to ULS, TIN registration, uploading files, or obtaining temporary passwords when your application has been previously auto-registered.

The hotline is available Monday.–Friday, from 7 a.m.–10 p.m. ET, on Saturday. from 8 a.m.–7 p.m. ET, and Sunday. from 12 noon.–6 p.m. ET. In order to provide better service to ULS users and ensure the security of the electronic filing system, all calls are recorded.

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CUTTING EDGE TECHNOLOGY

The State of Maryland is testing an electronic motor carrier- screening process. The "E-Screening" system uses a pocket- size transponder attached to a truck's windshield and sensors embedded in and alongside the road to automatically identify a truck, check a moving vehicle's weight, height, safety history and tax and registration status. Cleared vehicles are signaled to bypass the weigh station without stopping.

The project is part of the *Commercial Vehicle Information System and Network* ...a national program to develop a 'paperless' system to deliver data from moving vehicles to roadside checkpoints, and between government agencies and commercial operations. CVISN must be deployed in a majority of states by Sept. 30, 2003.

A Norwalk, Connecticut company has developed an electronic pain killer for treating chronic, acute or post-surgical pain in the low back, shoulder, neck, knee, elbow and other extremities.

The Biowave device electronically blocks pain in the body using patent pending technology that generates a low frequency electric field in deep tissue, blocking the transmission of pain signals in the body. Clinical studies show that following a 20-minute treatment pain was reduced an average of 78 percent. In addition, patients also had up to 24 hours of residual pain relief.

Biowave has a professional model for use in doctor's offices and a wearable cellphone-sized device for use by patients at home or work (available by prescription.)

Merconnet, a Montreal (Canada) firm has a "Magic-I-Key Chain" that is a miniature databank. The tag attached to a keyring is loaded by holding it next to your computer using a small digital camera that "reads" text on your screen.

You can download the names, phone numbers and birthdays (of up to 120 people), tell the time, date and language spoken in 100 world cities, use its calendar and alarm clock (with a musical reminder), a horoscope tells your fortune ...even has a slot machine game to keep you busy on the plane. Key ring measures: 3.75" x 1.25". Cost is on ly $19. See it at: <www.mymagic-i.com>.

EMERGING COMMUNICATIONS

The cable industry cites the work of rodents as the No. 1 cause of service interruptions. Dow Chemical makes a fiber-optic cable, the jacket of which is laced with capsaicin, the chemical that puts the "pow" in chile peppers, to protect the glass strands inside the cable from being chewed by squirrels and gophers.

The launch of third-generation cellular networks are being delayed by around one year. When it was first announced, companies said it should become operational by late 2001.

While a few cities in Japan have third generation service, it won't be widespread there until late next year. Europe will get 3G in early 2003.

But it won't be until 2004 or 2005 before we see it here in the U.S. since 3G spectrum has yet to be nailed down. It is starting to look like either the 1710-1755 or the 2110- 2150 MHz band will be home of U.S. 3G.

Japan's leading mobile telecom operator, NTT DoCoMo, launched the world's first third generation (3G) wireless mobile phone service last month. Users are able to surf the Internet with a fast connection and see real-time full-color video pictures of the people they are talking to. Handsets are expensive ...$400 to $600 each.

Eventually 3G surfers will be able to watch movies and listen to music on their tiny screen handsets.

According to market researcher, JP Morgan, 73% of households have cable modem service available, and 45% of households have access to DSL. Combined, broadband availability is estimated to be almost 85%. The intriguing statistic is that though this many households have availability, only 12% of these households have chosen to subscribe. *(Exerpt from Oct. 25th speech, Michael K. Powell, Chairman, FCC.)*

Research firm Kinetic Strategies reports 70 percent of broadband users in North America access the network through a cable provider. The remaining 30 percent do so through digital subscriber lines (DSL), the competing product offered by the telcos. Only 9.3 million residential subscribers currently have broadband (a fast Internet connection) in North America.

COMPUTER & SOFTWARE INFO

The Business Software Alliance, an industry group, contends that **94 percent of all software installed in China last year was counterfeit,** worse than the 91 percent rate a year earlier. A crackdown by China on the use of pirated software by business users is in the works as it enters the World Trade Organization (WTO.) It will include amendments to copyright laws and new software protection regulations. *(Reported by Reuters)*

Due to a sales slowdown, the Ford Motor Co. has canceled a program that would have given each of its 346,000 employees worldwide a free Hewlett-Packard computer and printer.

They had already given out 166,000 PCs when they stopped the "Model E" program ...a take-off on the Model T, the world's first automobile. In addition to the free PC and printer, Ford employees were to have gotten Internet access for a cut-rate monthly fee of $5.00.

PC makers hope that the new Microsoft Windows XP operating system will heighten demand for personal computers which is in its worst sales slump ever. XP relies on the much more stable and reliable NT platform that corporate customers have been using for years. Gartner Dataquest says 87 percent of new PCs sold next year will run Windows XP.

Overall, total PC shipments are down about more than 10 percent year-to-date. Dell continues to be the most popular PC sold in the U.S. with a 13.8 percent market share and is the only computer maker that is increasing its worldwide share.

Analysts believe the consumer computer market may be reaching saturation. More than 58 percent of U.S. households already have a PC. Neilsen/NetRatings says there are 168 million U.S. Internet users of which 102 million are active.

Research analyst Gartner says Microsoft's network software is "...riddled with security holes." The firm has been accused of leaving insecure "back doors" into users' networks.

Realizing that viruses are running at unprecedented levels worldwide, both in number and severity, Microsoft has now created a new department called the Strategic Technology Protection Programme. It will tackle web "worms" and other viruses such as "Code Red" and "Nimda."

Microsoft will launch a two-part attack. The first part, called "Get Secure," will include free virus-related product support and an online security tool kit.

The second part, "Stay Secure" contains a "lockdown" tool for Microsoft's Internet Information Services (IIS) software. Future versions will be locked down by default when it is shipped to users, meaning the software is pre-configured in the most secure settings.

The Direct Marketing Association runs a free service called the "e-Mail Preference Service" for consumers who want to cut down on the amount of unsolicited commercial e-mail they receive. You simply list your e-mail address at: <http://www.e-mps.org/en>.

The DMA <www.the-dma.org> is the oldest and largest trade association for direct and database marketing. All DMA members who wish to send unsolicited commercial e-mail must purge their e-mail lists of the individuals who have registered their e-mail address with e-MPS.

The service is also available to non-members so that all marketers may eliminate the names of those who wish to get less unsolicited e-mail (SPAM.) Marketers that want to use the service send their list electronically to e-MPS. All e-mail addresses registered with e-MPS are removed from the marketer's list. The "cleaned" list is returned electronically to the list owner.

NEWS OF THE WORLD WIDE WEB

Banner ads, long the standard advertising fare on commercial web sites are being de-emphasized. Online publishers are now serving up larger ads, instant messages, blinking ads, ads on left and right side of content, interactive ads, expanding ads, "flash" ads ...and more pop-up and pop-under ads.

Researcher Gartner says that "...online advertisements will become more intrusive [which] the user will not be able to ignore. ...online advertising is evolving to look very much like television advertising."

Advertisers are watching its impact of intrusive (annoying) advertising on web users. It all boils down to "...without online ads that produce substantial results without making readers angry, there will be no money to pay people to write or edit content on 'free' Web sites." *(Excerpted from the Wall Street Journal)*

WASHINGTON WHISPERS

Under the provisions of the *International Telecommunication Union* (ITU) treaty **the U.S. is obligated to comply with the spectrum allocations specified in the ITU Radio Regulations' Article S5** *(the International Table of Frequency Allocations).*

However, U.S. domestic spectrum uses may differ from the international allocations provided these domestic uses do not conflict with spectrum uses in neighboring countries that do comply with international regulations or bi-lateral agreements.

So many new radio services are constantly being added that it is hard to keep up with them. An updated online *International Table of Frequency Spectrum Allocations* (from 9 kHz to 2002 GHz) can be found at: <www.fcc.gov/oet/spectrum/table/fcctable.pdf>. This handy table lists which radio services are allocated the various bands in each ITU regions.

The NTIA *(National Telecommunications and Information Administration)* has their radio frequency spectrum allocations chart online at: <www.ntia.doc.gov/osmhome/allochrt.html>.

Many U.S. federal agencies are shutting down or removing potentially sensitive or dangerous information from there official web-sites. Descriptions and maps of U.S. fuel pipelines, nuclear reactors, waterways, bridges, hydroelectric dams, chemical plants and storage sites, and defense operations have been deleted.

Federal officials are also condemning locations and layouts of military command centers posted by news organizations.

On October 11th, the *Nuclear Regulatory Commission* completely shut down its Web site at: <http://www.nrc.gov> which contained information on the nation's commercial nuclear reactors.

While the American civilian public debates the necessity of national ID cards, the U.S. military is not waiting. The U.S. Dept. of Defense has ordered 4.3 million chip-based ID cards for 4.3 million military personnel over the next 18 months. The idea is to tighten security to access buildings and computer networks. It could even be extended to family members, retired servicemen, contractors and other agencies of the U.S. government.

According to "Input," a market research firm based in Chantilly, VA, **the U.S. Government will nearly double spending on information technology products and services (to $60.3 billion) by fiscal 2006.**

The objective is to protect the information networks that support the nation's water supply, telecommunications, financial and transportation, health care and emergency services, and manufacturing infrastructure. <www.input.com>

The U.S. Post Office is reporting a 5% drop in mail. As a general rule, people no longer write personal letters. Since the arrival of e-mail, 90 percent of all regular mail is business oriented. Greeting cards now account for most personal correspondence.

E-mail use has grown 40 percent year-to-year and -- pushed by the Anthrax bacteria fear -- is expected to reach a 45 percent increase this year.

Nearly 95 percent of U.S. businesses still send invoices via "snail" mail with the average consumer getting about eight to 10 bills a month. Consumers will begin using e-mail more for bill payment transactions as companies develop the capability to send statements online.

Spread through the mail, the anthrax scare is causing some consumers to shy away from sending and receiving mail. **Greeting card manufacturers are concerned that the anthrax scare could impact Christmas card sales.** Hallmark says all cards should be in your own handwriting and include your name and return address.

Some newspapers are only accepting e-mailed or faxed letters to the editor. Look for e-mail and Internet advertising to benefit as people become reluctant to open advertising mail.

FedEx (which delivers 5 million packages a day) and UPS (with 13 million) are reporting slower deliveries ...mostly due to building security at some locations.

Effective October 18, 2001, the FCC will no longer accept hand or messenger delivered paper documents or filings at its headquarters location at: 445 - 12th Street, SW, Washington, DC 20554. As of Monday, October 22, 2001 paper documents addressed to the FCC must be hand or messenger delivered to the FCC's Capitol Heights facility located at 9300 E. Hampton Drive, Capitol Heights, MD 20743.

"The Commission is currently looking for an alternative site in Washington, DC, to accept delivery of filings on a more permanent basis. We encourage our customers to make full use of the Commission's electronic filings systems to facilitate the filing of documents."

"Filings and other documents sent to the FCC by the Postal Service or overnight delivery services should continue to be addressed to the FCC at 445 - 12th Street, SW, Washington, DC 20554. The Commission itself will divert those deliveries to the Capitol Heights facility."

"The Commission finds it necessary at this time to make these changes to its procedures to protect the health and safety of its employees." *(FCC Public Notice)*

AMATEUR RADIO

Even ham radio is being impacted. Due to security concerns, CQ Communications, Inc. is asking all participants in CQ-sponsored amateur radio contests to submit their logs electronically.

All logs for the CQ World Wide DX Contest, the CQ WPX Contest, the CQ World Wide 160-Meter Contest, the CQ World Wide VHF Contest and the CQ/RTTY Journal RTTY contests should be submitted via e-mail per instructions in the rules for each contest.

In light of recent events regarding hazardous items sent through the mail, logs received through the mail at the CQ offices will be held unopened until all potential health risks have been evaluated. CQ says it "...cannot guarantee that logs submitted by postal mail will be opened. Contesters who want to be sure their scores will be counted must submit by e- mail."

"We regret the need to inconvenience those contesters who do not have access to internet-connected computers, or who choose to log by hand and submit those hand-written logs," explained CQ Communications President Dick Ross, K2MGA.

"But our logs come from all over the world. While the risk that amateurs might be involved in any sort of terrorist activity is extremely small, mail en-route may be subject to tampering. We cannot ask our staff members or contest committee volunteers to possibly expose themselves to dangerous packages sent through the mail."

CQ requests that this information be disseminated widely so as many contesters as possible will be aware of this rules change, preferably before the SSB weekend of the CQ World Wide DX Contest on Oct. 27-28.

Alternatives for contesters without computer logging programs or e-mail access:

1.) Get a computer logging program. There are many excellent and reasonably-priced programs available. Many may be downloaded on the Internet so there is no shipping delay. Some basic logging programs are even available as "freeware."

2.) Transcribe your log into an ASCII text (.txt) file on a word processing program. Using the format on the log sheet, enter each item for each contact, separated by a tab. Separate each contact with a carriage return (enter key). Save onto a floppy disk and e-mail (many public libraries have computers with e-mail capabilities) to the address listed in the contest rules. Be sure to include the required information about your station in a covering e-mail message.

Ham Radio in the News - The *Seattle Times* ran a feature story on October 18th entitled "'Radio Ichiro' hits the air." It seems that Tom Owens K7RI (60, of West Seattle, WA) usually uses the phonetics "K7 Radio Italy" to identify his station.

But during the American League playoffs he aimed his antenna toward Japan and switched to calling"CQ Japan from K7- Radio Ichiro." He got more than a dozen calls from Japanese ham operators where the Seattle Mariners right fielder, Ichiro Suzuki (and relief pitcher Kazuhiro Sasaki) are national heros. The playoff games were carried live in Japan at 5 a.m. in the morning.

The *Times* story included: "'A lot of us started in our 20s and are now in our 60s,'" said Owen, a certified financial planner whose radio-equipped den is also his office. "'We don't see a lot of new people getting into it.' He thinks that for many, the century-old charm of amateur radio has given way to the quick global reach of e-mail and the World Wide Web."

An October 12th nationally distributed news article by the Associated Press entitled **"Sales of Scanners, Radios Increase"** told how on "The day of the Sept. 11th attacks, amateur radio operators were able to pick up transmissions among New York police, fire officials and dispatchers and listen in as the disaster unfolded."

Overnight talk show host Art Bell, W6OBB has a very interesting graphic of the New York City "Ground Zero" World Trade Center location taken from a satellite posted to his website at: <http://www.artbell.com/-graphics22.html>.

FCC Amateur Radio Enforcement

Karl E. Simomson KS9E (Gurnee, IL) is embroiled in a Club call sign dispute. He was granted the Club call sign AC9ES (Adams County Amateur Radio Emergency Service Club) on August 27, 2001. The FCC reversed the call sign assignment when it was determined that Simonson was not the Club trustee and had in fact been dismissed from the club in March 2001.

Raymond C. Carlson N9OMJ (Sycamore, IL) has been warned by the FCC that it has received complaints that he is "...deliberately interfering with communications in the Family Radio Service (FRS) by playing music, transmitting tones and using obscene language to prevent certain FRS users from using the service."

The FCC also has received complaints that he has "...transmitted on police frequencies in the Dekalb, IL area and used false call signs." Carlson is to respond to the complaints within 20 days.

He has been notified that his Amateur license is in jeopardy and could be subject to a fine of up to $7,500.

Best Wok (Westville, NJ) has been warned that the FCC has information that this person or business has been operating two-meter amateur equipment on 145.83 MHz without a license. Such operation subjects the user to imprisonment, equipment seizure and a fine normally in the range of $7,500 - $10,000.

Dana T. Roper KE6HDD (Roseville, CA) was warned about his operation on the 20-meter ham band (14.302 MHz) using the callsign XE1HDD. He was earlier warned about operation on 14.165 MHz. He is to respond to the allegation.

Bryan C. Bailey KD5PXQ (Hurst, TX) has had his Technician license set aside while the FCC investigates complaints against him.

Miguel A. Espinosa KD2CL (Miami, FL) was warned by the FCC about using his amateur station to illegally broadcast on the 40-meter ham band.

UK RELEASES FOUNDATION LICENSE SYLLABUS

As reported in our October 15th Report, the United Kingdom has announced a new beginning Foundation License. A wide departure from previous licensing is that the amateur community will now conduct the training and license testing. The Foundation license is the first attempt to break away from the RAE (Radio Amateur Examinations) administered by London's City and Guilds.

The new UK Foundation license will officially be introduced at the beginning of 2002. This license will provide access to most of the HF and VHF amateur bands (except 10 meters), and restrict licensees to a maximum power of 10 watts RF output. Transmitting equipment must be commercially-manufactured transceivers or kits.

The training is based on a short (8 to 10 hour) course that can be conducted by full licensed radioamateurs over a weekend. Pilot courses are already being run. The 20 question multiple choice examination is administered by the instructor or some other "registered body." A controversial feature is that the Morse code exam has been reduced to simply recognizing various dot-dash sequences using a "crib" lookup sheet. Successful applicants are issued a Foundation license by the RA.

The UK's Radiocommunications Agency has now released the training outline for the new Foundation license.

UK Foundation License Syllabus -

1. Amateur radio

1a Nature of amateur radio

2. Licensing Conditions

2a. Identify types of Amateur License
2b Format of Amateur callsigns
2c License terms and conditions.

3. Technical Basics

3a Identify Units of measurement and multiple/sub-multiple prefixes.
3b Simple circuit theory
3c Frequencies used in power, audio and radio systems.

Note: calculations are not required.

4. Transmitters and Receivers

4a Simple block or "concept" diagrams of a transmitter.
4c Simple block or "concept" diagrams of a receiver.
4d Technical requirements of radio receivers

5. Feeder and Antenna

5a Feeder requirements
5b Types of antenna
5c Antenna basics
5d Balanced antennas
5e Meaning of SWR
5f Use of a dummy load

6. Propagation

6a Radio propagation basics

7. EMC

7a Basics of electromagnetic compatibility
7b Station design for EMC
7c Immunity of radio receiving and other devices and filtering techniques.
7d Social issues of Interference.

8. Operating Practices and Procedures.

8a Operating practices and procedures
8b Operating through a repeater.
8c Band plans
8d Connecting microphones and other audio sources to the transmitter.
8e Competence in making radio contacts.
8f Connecting a transmitter/receiver.

9. Safety

9a Sources of danger: mains, power supplies and high current batteries.
9b Actions to be taken and avoided in the event of an accident.
9c Station layout and tidiness
9d Safe use of headphones

Morse Code

The ITU Radio Regulations places an obligation on national Administrations to require candidates to demonstrate that he/she is able to send correctly by hand and to receive correctly by ear, texts in Morse code signals. The requirement is waived for access to frequencies above 30MHz.

It is expected that this requirement will be removed at the next world radio conference, WRC2003. It is then open to administrations to consult their amateurs as to whether the requirement should be retained as a national arrangement.

Until the requirement is removed, the following section forms a part of the syllabus. This section may be taken at any time in relation to the training course but prior to the exam.

10. Morse Code

10a Send and Receive Morse Code

Notes:

1. The Foundation Licence permits access to both HF and VHF amateur bands. There is no concept of an "A" or "B" [code and no code] Foundation license.
2. Tutors are advised to read "Foundation Training Course - A Guide to Tutors" produced by the Radiocommunications Agency. The Guide also has a glossary explaining some of the terms used and sources of further reading.