W5YI

National Volunteer Examiner Coordinator

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. May be reproduced providing credit is given to The W5YI Report.

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★ *In This Issue* ★

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§PART 15: Revolution in Non-Licensed Radio

The FCC has completed a monumental rewrite of §Part 15 of its rules, which concern technical standards for nonlicensed RF products of all kinds. These include so-called *"unintentional"* emitters such as computer products, video games and VCRs, TV and radio receivers, and other appliances; and *"intentional"* low-power transmitters such as cordless telephones, garage door openers, security systems, remote-controlled toys, experimental low-power stations, wireless microphones, anti-theft devices and intrusion detectors. College campuses broadcast to dorms under Part 15 rules by feeding low power programming through a capacitor into the AC power system. There are *tens of millions* of low-power §Part 15 devices in operation today by the public.

The changes will introduce new types of RF devices on many frequencies, *including amateur frequencies.* The FCC also claims it will "clean up" the radio spectrum by tightening the emissions tolerances on receivers over a 10-year period. According to the ARRL's ***Perry Williams/W1UED,*** the League may petition the FCC to reconsider the action, particularly because of alleged potential interference to amateur operations.

The FCC said its action will "provide major benefits to the manufacturers of §Part 15 devices ...and should also serve the public by enabling new technologies and new equipment categories that satisfy consumer demands to be introduced without the need for Commission rulemaking." The entire rewrite reduces the bulk of the §Part 15 rules by more than two-thirds. Eliminated are all unnecessary and overly restrictive technical regulations.

The rules for nonlicensed use of low-power RF devices were established nearly 50 years ago when a manufacturer wanted to sell a "phono oscillator" device to transmit music from a phonograph to a radio. Over the years, §Part 15 developed a device-specific approach, with the FCC modifying the rules each time a manufacturer successfully petitioned to allow a particular kind of RF device.

This eventually resulted in a patchwork of complex regulations, as well as FCC files bulging with letters from entrepreneurs who want to market devices not permitted by the rules. The FCC receives about 10,000 applications for approval of §Part 15 devices every year. Low-power wireless data transceivers and consumer video transmitters are two popular "verboten" categories that will become legal as long as they comply with the new rules. (Some of these devices are available now in the illegal marketplace.)

The video transmitters could be used to transmit from a VCR to TVs elsewhere in the house. They will have to operate on other than standard TV frequencies, using converters to supply final video and audio to the TV set. FCC staff emphasized that manufacturers and consumers will have to recognize the possibility of interference from authorized services to the nonlicensed §Part 15 devices.

The FCC had not yet released the full text of

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the decision by our deadline, but here are highlights of what is now known about the new Part 15:

General Limits: The new rules establish general emission limits for radiation and conduction. New Part 15 devices can operate on almost any frequency with any technical parameters provided they meet these emission limits. No longer will the Part 15 rules be "device specific". Devices are forbidden to operate on certain "restricted" bands that carry "critical" operations or require "extreme levels of sensitivity."

The restricted bands are mostly government and aviation frequencies; amateur bands were not included in the restricted bands. The FCC also decided to ban new Part 15 devices from TV broadcast channels, due to fears of interference to the coming multibillion-dollar High-Definition Television (HDTV) industry.

Current channelized operations at 27 and 49 MHz would be phased out in favor of the consumer bands (below) and spurious emission limits for cordless phones and for general operation at 27 and 49 MHz would be tightened.

Consumer Bands: The FCC has established additional new general-use Consumer Bands, within which higher emissions - up to 250 millivolts/meter at 3 meters - from Part 15 devices will be allowed (MHz):

13.553-13.567	26.96-27.28	40.66-40.70
49.82-49.90	902-928	2400-2483.5
5725-5875 MHz	...and 24.0-24.25 GHz	

These last four "higher power" §Part 15 Consumer Bands are also ham bands. The 902-928 MHz band is of particular concern since the ARRL band plan provides for repeater inputs between 907 and 910 MHz and weak signal/experimental work at 902-904. There is concern that an unlicensed §Part 15 device with a maximum range of 1,000 feet could inadvertently become long range by activating a nearby repeater. A worse scenerio would be for the proliferation of 902-928 MHz devices to preclude effective future amateur repeater operation. Also raised is the possibility of communications by the unlicensed public with amateur stations.

Although the FCC *Report & Order* is not yet available, it is believed that the unlicensed field strength in the 902-928 ham band is set at 50 millivolts/meter at 3 meters. This is about half a millwatt into a dipole antenna.

There is a provision that requires §Part 15 devices to accept interference from authorized radio services ...but any interference caused by these devices must be corrected by the §Part 15 user. Theoretically, if an unlicensed Consumer Band transmitter interferes with ham radio, its use must be immediately discontinued by the owner. One wonders how this will be received by a shopper who purchased an off-the-shelf consumer electronics contraption without being aware that its use is subject to these restrictions. Hopefully manufacturers will not be putting baby crib monitoring devices ...and other innovative gadgets on spectrum (especially 907-910 MHz repeater inputs) where it will cause difficulty for all. It may well be a non-problem ...but the potential is there.

It appears that products on these bands will be limited to antennas that are permanently attached, or that use a unique antenna connector.

Equipment Authorization: The rules for authorization have been streamlined. Certain devices such as electronic watches, calculators and low power PCs are completely exempted from the rules if they do not require AC power. Special temporary authority and experimental licenses will no longer be required for testing devices to determine compliance with the regulations.

External Inputs: Rules that allow only microphone input to devices such as wireless mikes and cordless telephones would be deleted.

Interference: FCC Deputy Chief Engineer Bruce Franca said that "there is concern by people that use the radio spectrum in the authorized services, that the services are being cluttered up with radio noise from devices, and so what we tried to do is balance allowing new devices and freedom for manufacturers, and at the same time clean up the radio spectrum. We've done that by imposing stricter standards on receivers and other §Part 15 devices."

ARRL's Perry Williams was skeptical that the new §Part 15 went far enough in reducing susceptibility of consumer products to RFI. He noted that the FCC has not used its legal authority to enforce

sufficient RFI standards. "They're ignoring their obligation to protect the public," he said. Williams noted that tougher emissions standards for receivers could reduce RFI susceptibility as well, due to measures such as better shielding. However, he criticized the FCC's decision to allow a lengthy (10-year) grandfathering of existing designs.

In earlier comments to the proposal, the ARRL argued vigorously against permitting increased usage of §Part 15 devices, including consumer video transmitters, in bands such as 902-928 MHz which Amateur Radio shares with other services. It called the idea "foolish," and told the FCC that the ham receiving interference "would face the problem of identifying one or multiple interference sources, calling on all neighbors within that range to determine which one(s) had installed such a video transmitter (a continuous duty cycle device when operated); and the difficult or impossible chore of convincing the consumer that the device should not be operated."

The ***Amateur Radio Industry Association*** will hold its second meeting of 1989 on Thursay evening, April 27, at 7 PM in Room 3 at the Hara Arena in Dayton Ohio in conjunction with the 1989 **Dayton HamVention**. This is an open meeting and all members of the amateur radio industry are urged to attend. Topics to be taken under advisement include the current national discussions of codefree entry level amateur licensing, possible industry support of the *Don Wallace Museum* in Palos Verdes California, amateur radio promotional planning plus the screening of two video's--Barry Goldwater on codefree Amateur Licensing and "Today's People" -- an industry funded in-school civics lesson also featuring Senator Goldwater. For further information contact ***Craig Clark, N1ACH,*** Ham Radio Magazine, Greenville N.H. 03048 or call (603) 878-1441

FCC CHAIRMAN TO CALL IT QUITS!

Amid whirring video cameras and furiously scribbling reporters, **Dennis R. Patrick** announced at an April 4 press conference that he will leave the FCC as soon as a successor is sworn into office.

Patrick, 37, was the youngest person ever to be a commissioner when he joined the agency in 1983. A Los Angeles-born lawyer who formerly worked in the White House personnel office, Patrick presided over some of the FCC's most tumultuous years. Unprecedented changes in regulation of AT&T, the introduction of Open Network Architecture in the nation's local telephone systems and the licensing of all major metropolitan areas for cellular telephone service were some of the major accomplishments during Patrick's chairmanship.

Other achievements Patrick cited included the decision to implement High Definition Television (HDTV); elimination of the Fairness Doctrine, which requires broadcasters to air balanced coverage of important events; the rewrite of the Amateur Radio Service rules in §Part 97; the FCC's collection of more than $100 million in fees; and its "aggressive" enforcement program that shut down the nonlicensed station *Radio New York International.*

In a letter to President George Bush, Patrick wrote: "I leave government service at this time taking great satisfaction in contributions made to the realization of our common policy objectives. ...We have vigorously pursued a policy of open entry for new competitors and new, competitive technologies. ...Where regulation is necessary, we have learned to regulate in a manner that is consistent with the interests of consumers and the evolution of competition, and not hostile to these goals."

The chairman said he has no firm plans other than that he does not wish to continue in government, but prefers to re-enter the private sector. The next several months will probably see much speculation as law firms and corporations seek to recruit Mr. Patrick, although he said he will not conduct job negotiations while still in office.

We asked Chairman Patrick if he believes that radio spectrum users are better off now as a result of his tenure at the FCC. His reply:

"Yes, I think they have fared better. The Commission's ultimate obligation is to maximize the public interest benefits that are derived from the use of spectrum. But the Commission is not necessarily all-knowing, with respect to the most appropriate applications of spectrum in particular markets. Therefore, I have been a proponent of more flexibility for users, more flexibility for licensees to use spectrum in ways that make sense within a particular community. I think that this Commission should focus on what I call the output parameters such as interference, and allow the technology that is applied to be controlled mostly by the licensees, and allow licensees more flexibility in terms of use as

long as they are not injuring the interests of other users of the spectrum. To the extent that we have moved more in that direction, I think that it's been positive for the users, but a lot more progress needs to be made."

As far as who will replace Patrick is anybody's guess at this time. It will probably be a month before we know. Many names are being tossed about including ***Sherrie Marshall,*** partner in Wiley, Rein & Felding, ***Andrew C. Barrett,*** member of the Illinois Commercie Comission and ***Alfred Sikes,*** head of the *National Telecommunications and Information Administration.* The NTIA is the White House advisor on telecommunications matters. Their names are reportedly on the White House "short list" - a "long list" also suggests a host of candidates with legal, political or broadcast/cable backgrounds.

AMATEUR WANTS CODE DE-EMPHASIZED

Another ham petition was filed on Apr. 3, by ***Clement Bourgeois Jr./N5AIK*** of Erath, LA. He argues that a knowledge of code is essential and that the FCC should keep the code ...but reduce speed to 5 - 10 - 15 ...or only a 2 speed level. "We need theory, operation, skills, resourcefulness more than 'speed demons' in the Amateur Service," he argues.

Bourgeois also suggested that after "so many years" as an Advanced Class operator one should be grandfathered to Extra Class in lieu of 20 WPM, as an alternative if the prior recommendation is not considered. He is 76, a retired postmaster, is a long term Advanced Class operator.

Bourgeois writes that he has tried for years to upgrade ...but that nervousness during the code test has blocked progress. He has even resorted to a variety of medications to solve the problem. "All has been of no avail and the admonitions of the code 'experts' to practice ad infinitum has not helped ...nor do I expect to ever help."

77 YEARS AGO TODAY - APRIL 15, 1912

(00:15 hrs.) CQD SOS FROM MGY TITANIC WE HAVE STRUCK ICEBERG SINKING FAST COME TO OUR ASSISTANCE. POSITION LAT 41.46N LONG 50.14W. (Morse code message sent by Marconi Wireless operator Jack Phillips who later died of exposure in the freezing Atlantic. (Tnx CARF)

SUGGESTIONS FOR IMPROVED VE EXAMS

The ***Fifth Annual VEC Conference*** is scheduled for Friday, July 7, 1989, at the Sheraton in Gettyburg, Penna. Representatives from most VEC organizations will be in attendance. A tour of the FCC's Gettysburg licensing facility is also included.

This year the conference will also address issues and comments that originate from other than the Volunteer Examiner Coordinators. *Anyone* that has suggestions concerning amateur radio operator testing, should put their thoughts down on paper and send them to us since we will be chairing this section of the conference.

We are particularly interested in ideas on how we can improve the testing function. In other words, what testing needs does the Amateur Radio Service have that are not being met by the *VE/VEC System* - or what should be changed ...done better? We need to hear from you by June 30th.

Areas that you might comment on are: question pool preparation, written and Morse code test design/administration/grading, Form 610 design/completion, written/code credit and Certificates of Successful Completion, test requirements for amateur licenses, availability of amateur exams and/or volunteer examiners, testing of the handicapped, maintaining examination integrity, etc.

A question we would specifically like addressed is: "Now that all testing is done in the private sector by VE's, should the Novice and VEC System be combined into one testing program?" If so, how should this be accomplished? (There is reason to believe that some Novice examinations are not being handled properly.)

Keep in mind that the VECs are now the sole architect of the amateur radio examination function and we will be agreeing on any needed *VEC System* revisions at the July 7 conference. Now is the time to make your views known. Send to: ***W5YI-VEC, P.O. Box 565101, Dallas, Texas 75356.***

The ARRL-VEC has a new Acting Manager. He is ***Bart J. Jahnke, KB9NM.*** ***Jim Clary, WB9IHH,*** has been placed on indefinite Leave of Absence status. Day to day senior management attention will remain with ***Larry Shima, W0PAN,*** ARRL Controller for approximately the next 90 days.

HAMS SENTENCED FOR EMBEZZLEMENT

Gary G. Young, N5DTL, 34 of Pacifica, California, has been sentenced by a Superior Court judge to 90 days in the county jail. He also must reimburse San Mateo County $12,000 and serve three years probation. Young was changed with felony embezzlement.

It was Young's job to order communications equipment for the various San Mateo municipal agencies. Apparently no one questioned him when he ordered amateur radio equipment - including two expensive UHF repeaters from Motorola - under the pretense that the gear was for county use. The Motorola repeaters were ordered with amateur frequency (440.075 and 440.700) crystals already installed.

Young, a former county communications engineer and two other employees, ***William W. Soomann, WB6UVO,*** 43, a shop supervisor from Redwood City and ***Michael S. Herbert, WB6JKV,*** 36, of Pacifica were arrested after investigators for the District Attorney alleged that the three men spent more than $80,000 in county funds on ham radio equipment for their personal use. Young and Soomann were fired by San Mateo County last fall.

Sooman was sentenced to 45 days imprisonment and ordered to make restitution in excess of $1,500. Herbert, who cooperated with authorities in the investigation and was involved in the scheme to a lesser degree, was asked to resign from his position with the county. He was sentenced March 29th to serve 20 days on the sheriff's work program, 100 hours community service and refund $810 to the county. The embezzlement occurred over a period of about eight years but accelerated in 1984.

DAYTON HAMVENTION AWARD WINNERS!

The *Dayton HamVention,* the world's largest gathering of ham radio operators, has announced that ***Bill Pasternak, WA6ITF,*** has been selected as *Amateur of the Year.* This award is for the special amateur who has made a long term commitment to the advancement of amateur radio.

Bill was selected as a result of his continuing interest in the promotion of amateur radio, his direct participation in *Westlink* and *Newsline,* as the author of amateur radio articles and books and producer of amateur radio related videos ...including *The New World of Amateur Radio.*

Byron Goodman, W1DX, of East Hartford, Connecticut, won the *Technical Excellence* Award ...with ***Phil Karn, KA9Q*** (Warren, NJ) taking the *Special Achievement* honors. Goodman was involved in the early days of amateur single sideband and is known for his founding of the ARRL DXCC program.

Phil Karn is the author of numerous articles relating to the use of computers in amateur radio and has been heavily involved in the development of packet radio software. All three winners will be presented their awards at the Saturday night banquet to be held at the *Dayton Convention Center* on April 29. (By the way, we will be in *HamVention Booth #429*. Stop by and say, "Hello!")

WORLD RADIO SHUTS RETAIL STORES

World Radio, a Council Bluffs, Iowa, based retailer of consumer electronics has announced that it has closed 15 of its 24 stores located in four states and is seeking protection from its creditors under federal bankruptsy laws. President Malcom Ballinger said he hopes to reorganize the company around the remaining nine retail stores. These stores are located in Council Bluffs and Sioux City, IA; Omaha and Lincoln, NE; and St. Joseph, MO.

Ballinger and a partner, Luke Northwell, bought World Radio from its founders, ***Leo, W0GFQ and Larry Meyerson*** about a year ago. World Radio opened its first retail store 25 years ago in Omaha, but the company had its beginning in 1921 with 10 year old Leo Meyerson's fascination with wireless radio.

Leo, who built his first radio out of an oatmeal box and a crystal, went on to found Wholesale Radio Labs in Council Bluffs and several other businesses that specialized in supplying equipment to amateur radio enthusiasts, in manufacturing crystals, and in making citizens band radios. Leo was one of the first to supply transmitters in kit form to radio amateurs in the mid 30's.

Meyerson had a lucrative contract to manufacture crystals for the government during World War II. He afterward resumed operations as *World Radio Laboratories* and once again supplied the radio amateur with his equipment needs. His *Globe*

Scout and *Globe King* transmitters are ham radio legends.

World Radio Laboratories evolved into the World Radio consumer electronics merchandising chain. The 1989 *Standard & Poor's Register* of corporations estimated World Radio sales at $40-$45 million. Meyerson, who has been licensed as a ham operator over 60 years and is retired, lives in Omaha during the summer ...and spends November through May in Cathedral City, California.

HAM RADIO ...AND STUDENT EDUCATION

Jim Haney, WB5JBP, West Gulf ARRL Director, **Rosalie White, WA1STN** from League Headquarters and some members from STARS *(South Texas Amateur Radio Society)* set up an amateur radio demonstration booth at a recent high school science teacher's meeting held at the Texas Technical Institute in Harlingen, Texas

It was very well received with the crowd three and four deep around the booth. A packet and ten meter station was installed and a video tape obtained from Staten Island teacher, **Carole J. Perry, WB2MGP,** was viewed. Perry utilizes ham radio right in her classroom. Teachers were shown amateur radio lesson plans. About 40 - 45 inquiries were generated from those interested in obtaining more information on classroom use of ham radio.

Meanwhile, **Carole Perry, WB3MGP,** has been invited to attend three days of seminars with engineers and astronauts from NASA ...and to attend the actual shuttle launch on April 28.

In 1985, Carole attempted to make a radio contact with **Tony England, W0ORE** on the space shuttle, Challenger, from her classroom. It was a big media event at Carole's school where she teaches and it came to the attention of the education department at NASA. More recently, Carole's students on her ***"CQ All School Net"*** have been in radio contact with ***W5RRR,*** the ham station at the Johnston Space Flight Center in Houston.

The seminar is designed for select educators from around the world and involves the people actually concerned in the launch ...including the astronauts. On April 28th, they go on a VIP view of the launch at 1:30 p.m. Carole will be flying to Dayton right from the launch as she has her own workshop to give at the *HamVention.* She will undoubtedly have some interesting remarks about the launch ..and future space program ham radio involvement.

•***Reciprocal amateur operating arrangements*** with Mexico also are progressing - although they have *taken an unusual twist.* The agreement (which is written in Spanish) provides that U.S. amateurs operating ham radio in Mexico *must have a Mexican sponsor.* The agreement was approved by the Mexican authorities on January 28th. The United States must now to agree to it. We understand that if you are an associate member of one of Mexico's two amateur groups that it is much easier to obtain the needed sponsorship and an XE call. Mexico also has set aside the same 220-222 MHz as the U.S. for land mobile use.

AMATEUR RADIO CALL SIGNS

...issued as of the first of April 1989.

Radio District	Gp."A" Extra	Gp."B" Advan.	Gp."C" Tech/Gen	Gp."D" Novice
0	WSOI	KF0BV	N0KJD	KB0EFB
1	NV1Y	KC1OA	N1GKL	KA1TMF
2	WN2Z	KE2MA	N2JDT	KB2HLH
3	NU3H	KD3ME	N3GYP	KA3UJR
4 (*)	AB4NO	KM4QA	N4VHV	KC4JSH
5 (*)	AA5LA	KG5SW	N5ODB	KB5IWZ
6 (*)	AA6ND	KJ6RY	N6URD	KC6COG
7	WYT7	KF7SN	N7MMK	KB7HHI
8	WQ8O	KE8XO	N8KNX	KB8GUB
9	WGPL	KE9PH	N9IHE	KB9CID
N. Mariana Is.	AH0H	AH0AE	KH0AM	WH0AAL
Guam	KH2K	AH2CE	KH2DS	WH2AMA
Johnston Is.	AH3B	AH3AC	KH3AB	WH3AAC
Midway Island		AH4AA	KH4AD	WH4AAF
Palmyra/Jarvis	AH5A			
Hawaii	(**)	AH6JT	NH6ST	WH6CCJ
Kure Island			KH7AA	
Amer. Samoa	AH8C	AH8AD	KH8AH	WH8AAX
Wake Wilkes Peale	AH9A	AH9AD	KH9AD	WH9AAH
Alaska	(**)	AL7KY	NL7QW	WL7BUH
Virgin Islands	NP2E	KP2BO	NP2CX	WP2AGQ
Puerto Rico	(**)	KP4PY	WP4UY	WP4IHS

NOTE: * = All 2-by-1 format call signs have been assigned in the 4th, 5th and 6th radio districts. 2-by-2 format call signs from the AA-AL prefix block now being assigned to Extra Class amateurs. ** = All Group "A" (2-by-1) format call signs have been assigned in Hawaii, Alaska and Puerto Rico. Group "B" (2-by-2) format call signs are assigned to Extra Class when Group "A" run out.

[Source: FCC, Gettysburg, Pennsylvania]

W5YI REPORT

National Volunteer Examiner Coordinator

April 15, 1989

ARRL NO-CODE PANEL SUBMITS REPORT

The special committee appointed by American Radio Relay League President ***Larry E. Price, W4RA,*** has submitted its report recommending the creation of a class of Amateur Radio license not requiring a knowledge of Morse code. The panel was appointed at the direction of the League's *Executive Committee* at its Baltimore meeting on December 10th.

The report was presented to the ARRL *Executive Committee,* which met on April 1. The Executive Committee did not take a position on the substance of the report, but authorized its publication in full in the May issue of *QST* and referred it to the full *Board of Directors* for consideration during its July 21-22, 1989 meeting.

ARRL members, other licensed radio amateurs, and others interested in Amateur Radio are invited to review the report and to make their views known to ARRL Division Directors, whose name appear on page 8 of *QST* magazine. You may also send your views to us here at the *W5YI Report* and we will see to it that they find their way to the ARRL Board.

The mission of the committee was "...to explore the implications of a no-code amateur license." To carry out this mission, President Price appointed a distinguished comittee consisting of members from the ARRL Board of Directors, Amateur Radio industry and radio amateurs at large. In addition, consultants were designated from CRRL, the *Canadian Radio Relay League* and QCWA, the *Quarter Century Wireless Association.*

The Committee stresses that its proposal, if adopted, would not cause asny licensee to lose any present privileges. It proposes a new class of Amateur Radio license, with a written examination somewhat more comprehensive than the present Technician exam ...but with no requirement for a Morse code examination.

Holders would be permitted to operate on all frequencies and with all privileges now available to Technicians above 30 MHz, except that 2-meter oepration would be limited to frequencies between 144.9 and 145.1 MHz and to digital modes only. Examinations would be given only by accredited Volunteer Examiners, and distinctive call signs would be assigned.

The Committee carefully reviewed a wealth of input from interested individuals and Amateur Radio clubs, as well as information it had requested from *International Amateur Radio Union* (IARU) member societies in other countries which already have a code-free class of amateur license. A large number of alternatives were considered by the committee in developing its recommendations.

ARRL Executive Vice President ***Dave Sumner/K1ZZ*** stressed that the committee's report does not represent League policy at this time. The Board of Directors is the policy-making body of the organization, and as such will determine whether the report, with or without modifications, will become League policy.

He pointed out that the League is a representative democracy, with Directors elected to represent the members of their Divisions. Accordingly, anyone reading the report and wishing to have his or her views considered is urged to write the Director or their Division sometime prior to the July Board Meeting.

What follows is a somewhat condensed version of the report which runs to some nine single-spaced typewritten pages:

No-Code Panel Conclusions:

(1.) No licensee should lose any present privileges.

(2.) The present Technician (3A) pool is already being revised to correct shortcomings in its syllabus. The Committee feels this action is needed and its completion is a foundation of our recommendations. The examination length for this element should be increased to 30 questions to accomodate the slightly expanded syllabus.

(3.) The present Technician Class will be named "Technician Plus". Each holder of the present Technician Class license on the date of implementation of this proposal by the FCC will automatically become a "Technician Plus."

(4.) A new class of license called the "Technician" will be created. To obtain this license an applicant will be required to pass the present Novice (Element 2) and the revised Technician (Element 3A) written examinations. Both of these examinations must be administered through the Volunteer

Examiner program and credit will not be given for having passed Element 2 before Novice examiners.

(5.) For a Technician [new Tech - not the current one] to become a Technician Plus, he or she need only to pass the Novice code (Element 1A) examination at 5 words per minute. This must be done through the Volunteer Examiner program.

(6.) The licenses of the new class should have distinctive call signs. These would be 2X3s beginning with NA#AAA. Upon obtaining a Technician Plus license, the first letter would change to "K" (or the appropriate 1X3 if the licensee so requests). In practice these licenses would probably begin with NE#AAA to avoid duplications with suffixes already issued in the KA through KC series.

(7.) The new Technicians should have all privileges now allowed present Technicians above 30 MHz - except in the two-meter band. On two meters, the new Technician should only have digital privileges from 144.9-145.1 MHz. [...the digitial privileges came up as an 'afterthought' at the tail end of the meeting to placate the computer buffs. "There is a large contingent that is claiming that there is a mass of computer oriented people out there that want nothing to do with amateur radio ...except packet. Let's give them an opportunity."

Rationale:

(1.) "National and international pressures on our spectrum, the continuing increase in the average age of amateurs, the expected decrease in the number of young people coming of "ham age," a desire to help improve the human technological resources of the United States, and fundamental fairness have led the Committee to recommend a code-free license class be established which requires unmistakable technical competence."

(2.) "Domestic pressures on our spectrum are so clear that they need not be documented here; and it appeared to the Committee that serious international pressures, including the possibility of a WARC, exist as well. An increased number of amateurs may aid in our defense of those frequencies."

(3.) Proposals should increase the number of amateurs without introducing uncontained or unrestrained growth. There will be a dramatic number of young people reaching "ham age" in the next few years. "To hold our own, we must recruit an ever-higher percentage of the total pool of young people as they reach an appropriate age. ...to attain growth figures which would be of significant assistance in frequency defense, the Committee feels an aggressive recruiting campaign, far beyond anything previously attempted, must be considered. International experience with codeless license classes confirms this view."

(4.) "We were well aware of this Nation's loss of its technological edge. This can be seen in the transfer of technology overseas and in the decline of technological skills here at home. Anything we, as amateurs, can do to help reverse this trend is important to our Nation. We are well aware that many of today's leaders in technology began their careers in ham radio, and are painfully aware that many rising technologists today do not see the code as relevant. The Committee feels that this proposal ...can help restore the technological viability of the United States."

(5.) The Committee emphasized that no existing amateur would lose privileges ...and there will not be uncontrolled growth and irresponsible behavior. Growth "...will be carefully controlled through the examination system." Newcomers to the service should not be placed "...in a ghetto in which they can develop unacceptable operating techniques." The ham bands will not become overcrowded since "...the privileges recommended by the Committee will be those portions of the spectrum where additional activity can be accomodated..."

(6.) The new "doorway" to ham radio will not be one of easy access. "Rather, one must demonstrate technical knowledge and knowledge of the rules that equals or surpasses that now required by present Technicians."

(7.) The Committee strongly believes that Morse code does not work well as a filter to weed out undesirables, "...there are hundreds of cases indicating that technically qualified persons of good character did not become hams, not because they did not wish to spend the necessary study time, but because they saw no relevance in the code requirement. ...code is believed to be an ...unfair filter that rejects the good as well as the bad."

(8.) The code is not a proper filter. "...the dedication required to learn the code has not worked well to keep undesirables out of the Service. One would only have to listen but a short time on some

of our more popular HF phone bands to hear any number of persons we would all just as soon not be among us."

(9.) The Committee considered what mechanism would insure quality ham candidates ...among them were mandatory study requirements, a mentor program ...and written tests. "The last is the only one that seems fair and capable of consistent administration."

(10.) The Committee caused a questionaire to be mailed to each IARU Society which is known or believed to have a codeless license in compliance with ITU Regulations. Information was requested on the date the license was instituted, the licensing figures before and after its institution, and the extent to which licensees later converted to the more traditional licenses. There is little evidence that the Japanese no-code telephone class licensee "...will be more than a transistory member of the Amateur community."

"....evidence indicates little tendency anywhere for codeless licensees to mainstream without genuine incentives being deliberately included in the structure. This Committee believes that the structure of the system in the United States should encourage such licensees to do so. Our proposal, especially the integration of new licensees into the overall licensing structure, has some kinship with the Australian, Belgian and West German programs, each of which has a very high percentage of their codeless licensees joining the more traditional ranks. ...Australia reports 95% of those who initially take a codeless licensee eventually move to a full privilege license."

(11.) Morse code communication, "...as a universal language, crosses all cultural and language barriers, thereby fostering international friendship. This, alone, is adequate reason to retain Morse Code as a requirement on the HF bands. Few amateurs in the United States, however, will need to use this universal language beyond our own borders on VHF/UHF. Therefore, this reason for learning Morse code is not valid above 30 MHz."

(12.) "The Committee has a long discussion about permitting newly licensed Technicians on six meters. Six meters, with its unique propagation and widespread ham population, is the ideal training ground for new codeless licensees and presents the best opportunity for their assimilation in the general ham population. Its characteristics can pique their interest in moving to the HF bands; and the distances attained, even without exceptional propagation, can expose them to enough diversity of operators to properly educate them in the operating techniques needed when they mainstream to a full privilege license."

(13.) "The Committee debated long on two meter privileges for the newcomers. This band is full (even over-occupied) in many areas, and has been fully developed by existing amateurs. The prohibition of voice operation on this band to Technicians will give them a strong reason to learn the Code and join the mainstream and will present a minimal deterent to entry. The Committee did feel that the newcomers should not be denied the opportunity of using digital communications in this band and the privilege of joining other amateurs while contributing to improvement of the digital system."

Testing:

(1.) "The present Technician question pool does need some modification to more accurately include subjects with which Technicians need to cope. This should (and will) be done regardless of the outcome of the codeless license proposal. The new Technicians should pass both the Novice (Element 2) and the newly modified Technician (Element 3A) written examinations to achieve the license."

(2.) "The privileges to be granted mandate the most carefully controlled testing. Likewise, the five words-per-minute Code test required to mainstream to the 'Technician Plus' should also be administered through the (VEC System.) ...The primary difference between the two grades of Technicians is that the Technician Plus is permitted HF CW, and existing ten meter phone privileges, and all-mode operation on two meters."

Other Considerations:

(1.) "The Committee does not believe that every ham needs to know Morse Code for possible emergency work. ...the rarity of the use of CW ...on VHF/UHF does not justify excluding prospective hams from the Amateur Service."

(2.) "The Committee does not believe that every ham must know the code because it gets through in adverse propagation conditions. Digital modes have the same advantage."

preparation materials. My age is at least 18 years old."
creditation materials will be sent to you in about two weeks.

(3.) "The Committe does not feel it necessary that every new ham be required to know the code because it is most simple technically and least expensive more. Relatively few hams who operate VHF/UHF even have rigs capable of receiving (Code) on those bands. The days of building a junk box CW rig for these frequencies are long gone - if indeed they were ever really here. For those who might wish to use code, they certainly may."

(4.) "The Committee is well aware that 432 MHz is overcrowded in a few areas, and also that it is not available in others. However, this band is not at full capacity in many areas and is the most practical band from which the Technicians may enjoy satellite communications. AMSAT has specifically requested that the new licensees be able to operate via the new satellites now in the planning stages. It is illogical to allow satellite communications while not allowing terrestrial communications on the same band."

(5.) "Many of those who will become Technicians are likely to be technically trained persons of the highest order, will pass an examination at least as demanding as that now required of Technicians, and will have been adequately tested to permit full-power operation. We should not stifle their ability to contribute. The Committee rejects limitation to commercially manufactured rigs for the same reasons that caused it to reject power limits."

(6.) "New Technicians should not be limited to voice subbands tighter than those permitted present Technicians. This would so isolate the newcomers that a new and perhaps undesirable culture could arise unchecked. The newcomers should not be confined to a ghetto of their own kind, but given needed exposure to the existing Amateurs to expedite their assimilation."

(7.) "The Committee recommends against a limited license term for the new Technicians. These new hams will have passed an examination more rigorous than present Novices and at least as rigorous as that passed by present Technicians. They will have demonstrated their 'seriousness' by taking the test. There is no valid reason to limit their terms. They will be in a position to contribute to the radio art and the Amateur Service from their first contact."

Summary:

"For several years it has been the goal of the League to increase the number of hams. This position is well-advised. The Committee does not for one moment accept that the code is antiquated or obsolete. Neither does the Committee encourage the slightest easing of code requirements for below 30 MHz. As a filter against undesirable operators, Morse code has demonstrated its own mark of validity. Many undesirables have at one time or another demonstrated skill in the subject."

"On the other hand there is much evidence that the code is filtering far too many desirable and technically qualified operators. These individuals *COULD* learn the code but they see no relevance in doing so and spurn participation in the hobby guarded by what they erroneously believe to be an antiquated requirement. No matter how hard we try, we cannot demonstrate to them the folly of their thinking. They must learn this for themselves."

"Thus to expose them to the benefits of Amateur Radio while at the same time exposing them to the opportunity to see the benefits of Morse code, we permit them to enter and allow them to find the value of Code as a means of practical communication."

"The proposed structure encourages them to fit into the mainstream of amateur radio. We can also take advantage of the skills and knowledge they will bring to the Service. We believe only a proper written examination will provide an appropriate filter."

"The privileges we suggest for the new Technicians both demonstrate a proper level of competence and expose them to more mature operators and their techniques while permitting these newcomers to join the mainstream with an appropriate level of effort. Likewise, we believe the privileges we recommend be reserved to traditional licensees present adequate incentives for the new Technicians to join the mainstream."

"Further the Committee believes the claims that vast hords of newcomers will join ham radio as a result of the creation of the codeless license to be purest folly. Rather, we propose a fairer system with a more realistic examination for those - especially young people who might join our ranks - and one that will permit and invite qualified prospects into the Amateur Service."

(Report by ***George S. Wilson, W4OYI,*** Chairman)