



the **RARA RAG**

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NO. 6

NS9E TO DISCUSS DIGITAL TELEVISION AT FEBRUARY 7th MEETING

Ahhh, the miracles of modern technology. You may be asking yourself, "what is digital television?" As a person who enjoys using TV imagery for the hobby as well as the usual form of entertainment, I had no idea of what is to come. We are all in for some surprises. Television as we know it is going to go through some radical and serious changes. Within the next couple of decades, the standard mode of commercial television is going to change. This means that your current type of television will become obsolete. Not only will your TV be out of date, but so will the commercial transmitters. Looks like a field day for hams who want to buy big TV transmitters!

I wonder if Pinnacle Hill will be for sale too. Tim Stoffel NS9E, will visit us at the February meeting and inform us as to what all these changes will be. Do not take this lightly, these changes will affect us all. Here is your chance to get first hand information as to what is in our future as far as any commercial television is concerned. In a day and age where computers are rapidly increasing in popularity, our TVs' are going to become more like a computer terminal than a television set. Instead of "scan-lines" we will have pixels. Multiple programs

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SILENT KEYS

Fred J. Retallick
WA2BLF
January 13, 1997

Robert F. Huether
KD2MC
December 29, 1996

RaRa MEETING

**February 7, 1997
8:00 P.M.**

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Digital Television

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VE TESTING

Join us on Saturday, February 15, 1997 at 111 Westfall Road for new license or to upgrade. Registration starts at 8:30AM. Exams start at 9:00AM.

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Continued from page 1

will be available on one channel. Tim will have many interesting innovations to discuss that are headed our way and this is an excellent opportunity to find out what is going on in the world of commercial television.

I find all of this particularly exciting because of my interest in amateur TV. There won't be much use for all this "outdated equipment" and in a way, this will be good for ATVers. So come on out for the February meeting and see what is headed our way. I am sure this will be a learning experience for us all. Don't miss it!

George Lloyd, N2UIO Vice-President, RaRa

VOL. 49 February 1997 NO. 6

1997 DIRECTORY BY K2VCZ

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The 1997 RaRa Directory is complete and was sent to the printer on January 9. When the printing is completed we will take it to be drilled and it will then be ready for distribution. I expect that we will be mailing the directory to all of our current full members during February.

A number of you have asked for new or replacement binders to hold your directory. I am sorry to report that the binders are no longer available. When RaRa made the original purchase of binders many years ago the cost per binder was small due to the large quantity that was purchased. At the present time the quantity needed per year is small and it would be very cost prohibitive to purchase more binders.

The good news is that an alternative binding method is available. We have the equipment and the binding rings available to bind your directory for you. All you have to do is bring your new directory to either the March or April general membership meetings and we will be happy to bind it for you.

Thanks to all the members who supplied information and updates for the 1997 Directory. We hope you enjoy the final result.

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THE PRESIDENTS MESSAGE FOR THE MONTH

At the Board meeting, it was decided to make a donation of \$100 to the ARRL Defense fund. This donation was made with the idea that if our ability to make additional donations in the future were to improve, we could make them. One person on the board suggested a sum at this time of \$1,000, but the rest of the board felt that it would be better to use the \$100 donation at this time. The issue is real and a need for the defense of our bands is such that we cannot ignore it and let "George" do it "George" may not have the facilities or the interest, so it is up to us to do what we can to solve the problem. With a membership of near 700 members, if everyone gave a small donation, it would add up to a significant sum. Will you do what you can? Your donation can be sent in individually or it can be combined with the other club members donations who wish to make a combined donation in the club's behalf.

In this issue is information concerning our next class. Please pass the information along to any persons thought to be interested in becoming an amateur. If we are numerous enough it may improve our status in the issue of who will next occupy the bands we now enjoy. Leave us hope it is the radio amateur not the commercial interests.

On an allied subject, those of you not now belonging to the ARRL should consider joining. If you join through the club, there is an option of a \$2.00 rebate, or reduction in dues. If you choose the reduction in dues, and use the \$2.00 for part of your donation the ARRL Legal defense fund, it all helps.

Enough of that for now. With the volunteer help of W2SKY we are preparing a web page for RaRa. More details when we have progressed beyond the planning stage. This web page can be a real asset to RaRa as an information page for those interested in joining the club, and those who want to know about some club function. As I see it, things have been going well for the club, and I believe that it will continue to do so for the remaining of the year. Hope you are having a good time and continue to do so also. On Jan 3, I completed radiation treatments and am looking forward to a long and productive life. Hope you come along for the ride.

Art De Bruycker Pres

RaRa Hotline
(716) 442-0587
24 hours a day

February Calendar

- 7 - RaRa Meeting - 8:00PM - Henrietta Fire Hall,
3129 East Henrietta Road
15- RaRa VE Testing - 111 Westfall Rd. 8:30 AM
18 - RDXA Meeting - 111 Westfall Rd., 7:30PM

HELP WANTED: READERS NEEDED BY HANDI-HAMS

The Courage HANDI-HAM Center needs volunteer readers to record ham radio books and publications on audio tape. Volunteer readers provide a valuable service to persons with severe physical disabilities and sensory impairments who cannot use regular printed books.

Volunteers should hold an Amateur Radio license and be familiar with hobby terms and expressions. A clear speaking voice and the ability to read the written text of Amateur Radio books and describe the diagrams and pictures are essential.

HANDI-HAMS will provide a tech sheet and a sample tape to new volunteers, as well as a copy of the book to be read and cassette master tapes. Readers will need a good-quality cassette tape recorder and a quiet place to record. Some of the books we would ask readers to tape would be ARRL license manuals, special interest Amateur Radio books, and instruction manuals for radios.

This volunteer work can be done in one's own home, at one's own pace, as long as there is a quiet place to read. It is a wonderful way to share Amateur Radio with others!

Please contact the Courage HANDI-HAM System at: Courage Center, HANDI-HAM System, 3915 Golden Valley Rd, Golden Valley, MN 55422; tel 612-520-0515; fax 612-520-0577; e-mail handiham@mtn.org. Visit the HANDI-HAM World at <http://www.mtn.org/handiham>.

Patrick Tice, WA0TDA

tnx ARRL Letter

Rochester HAMFEST

May 30 - June 1, 1997

FCC Delays New RF-Exposure Rules

The FCC has postponed for one year, until January 1, 1998, the date for hams to comply with its new RF-exposure regulations. The ARRL was among those requesting the delay this fall. The League said that the additional time was needed for the FCC to draft implementation guidelines that amateurs could use to help them comply with the regulations--released on August 1, 1996 as ET Docket 93-62. Among other things, the regulations would require hams running 50 - W PEP or more to conduct "routine RF radiation evaluations" to determine if RF fields were sufficient to cause human exposure to RF radiation levels in excess of those specified in the proposed regulations. The ARRL also has asked the FCC to reconsider the 50-W threshold, but the FCC report (DC 96-112) extending the compliance deadline did not address that issue.

The FCC announcement--which the ARRL obtained just before noon on Christmas Eve--noted that more time would be needed for affected licensees to determine that they comply with the new requirements. The extension also will allow required changes to Amateur Radio operator examinations to be made at the time other, routine revisions are made between now and July 1, 1998. In announcing the extension, the FCC said it disagreed with those petitioners who suggested that the time extension "will have significant adverse effects on public health."

Since the FCC announced the RF-exposure regulations, the ARRL has worked with technically knowledgeable volunteers to assist the staff, the RF Safety Committee and the FCC in coming up with a workable ham radio approach toward RF safety. ARRL Laboratory Supervisor Ed Hare, KA1CV--the ARRL HQ liaison to the ARRL RF Safety Committee--has spearheaded the ARRL's effort. "The ARRL is very pleased that the FCC extended the compliance date," Hare said. "As all parties involved tried to fully understand the new requirements, it soon became obvious that neither the FCC nor the ham radio community was ready for the January 1, 1997, implementation deadline."

Hare said the delay will give both the FCC and hams more time to better understand the implications of the rules and will give hams an opportunity to evaluate their stations as the regulations will require (see "The FCC's New RF-Exposure Regulations," QST, Jan 1997, p 47).

The entire text of Report DC 96-112 may be found on the ARRLWeb at <http://www.arrl.org/fcc/dc96-112.html> (or click on

What's New or RF Safety News). See Happenings in February QST for additional information.

Tns ARRL Letter

1997 HAMFEST PROGRAMS, PT. II

by Lloyd R. Caves, WB2EFU

RaRa would like to present to you, its members, the 1997 ROCHESTER HAMFEST. The dates are May 30, 31, and June 1. Did you know that of the thousands of hams that attend the Hamfest each year only a small percentage of our members are among them. The Hamfest Committee this year has been working hard to make this years Hamfest even more enjoyable for all. So lets change that percentage rate by all of us attending. Remember this years Hamfest will be even longer with the Dome open to the public on Friday afternoon.

As part of the Hamfest there are programs and forums that are presented each year. This is part II of a series of articles that will give you a little advanced insight into what will be presented this year. Keep each issue of the *RaRa Rag* so that you will know what is going on and in the May issue there will be a schedule for you to use to plan your day.

Are you among the people that are surfing the net these days? If so, do you know your way around and know how to find things that are amateur radio related or do you just run across a few things by accident? David Wolf, president of Vivatron will be with us to present Web Net for Hams. He will show you how to find ham related topics with ease.

The most highly attended of all forums is the VHF Forum. This years forum will be hosted by Evhen Tupis, WB2ELB, the Rochester VHF Group Chairman. The theme this year is "Microwave Boot Camp". Two fun-packed hours of immersion into operating the shortest of wavelengths. Included is a hands-on lab titled: "Building the World's Simplest LASER Transceiver". This is the seventh year for the VHF Forum.

As mentioned last month, Bill Kenamer, K5FUV, DXCC Chairman for the ARRL will be with us to check your QSL cards (see January's *RaRa Rag* for details). While Bill is with us he will be presenting a talk about the International DX and the DXCC. Learn how the DXCC fits into the international arena and how the DXCC is used in other countries. If you are a DX chaser this will be a talk that you will not want to miss.

That is all for this month. Watch for part III next month in the *Rag* as there are still a lot of good topics and speakers to learn about. You wouldn't want to miss something or someone of interest to you.

LOOKING FOR KOSHER HAMS

Yes, you can find kosher hams in the Rochester Chaverim Amateur Radio Club. The club is a chapter of Chaverim International, a worldwide organization of Jewish amateur radio operators and their friends.

The club is dedicated to public service and social events. The Rochester chapter provides VHF support for runs sponsored by the Jewish Community Center each spring and fall: the 10k Human Race and the 5k Bagel Run. Chaverim International has chapters in 25 U.S. cities, as well as worldwide, and sponsors HF and VHF nets for friendly conversation.

Upcoming events include a brunch and informal on-air meetings. If you're interested, please call Dave N2TJB at 872-6093.
(david.rubin@internetmci.com).

QSO WITH BLAHA "THE FUNNEST" FOR TEXAS HAM

Jerry Buxton, WB0HUS, ran into John Blaha, KC5TZQ, the other day while driving to work. While monitoring the Mir downlink frequency, he got lucky when Blaha came on the air calling CQ. "I picked up the microphone and answered, and he called me back!" said Buxton, who was clearly thrilled by the experience. "This is the greatest! My first Mir contact!"

Buxton said Blaha had a "good, clear strong signal" into the Fort Worth, Texas, area. "I asked him how his morning was up there. He said they were very busy with their experiments."

Buxton said working Mir from his car was "truly one of the funnest parts of ham radio to me." He said he can't wait until the next SAREX shuttle flight "to see if I can have any luck then." His mobile rig is a Yaesu FT-5200 running 50 W into a 5/8-wave mag-mounted antenna on the roof of his car.

Tnx ARRL Letter

FCC TURNS DOWN MORE PETITIONS FROM EARLY FILERS

As it already did in a similar case, the FCC recently turned down Petitions for Reconsideration from three hams asking the FCC to reinstate their vanity call sign applications. The applications had been dismissed because they arrived prior to the opening of Gate 2 on September 23. The applicants' paperwork arrived at the FCC's fiscal agent, Mellon Bank in Pittsburgh, Pennsylvania, on September 20. In November, the FCC dismissed nine other similar petitions for reconsideration.

In its Memorandum Opinion and Order, released December 19, 1996, the FCC said it was not its fault that the applications arrived early and that the petitioners "did not show any error or culpability on the part of the Commission or Mellon's Lockbox Shift Supervisor."

The Commission pointed out that nearly 4200 hams successfully filed first-day Gate 2 applications that were delivered by various means and arrived on time.

FCC via The ARRL Letter

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NORTH AMERICAN DIGITAL SYSTEM DIRECTORY TO BE ONLINE

With ARRL support, the Tucson Amateur Packet Radio Corporation (TAPR) now will provide information on digital systems that formerly appeared in the annual ARRL Repeater Directory. The digital directory information will be available at <http://www.tapr.org/directory>. By not including digital system listings in the 1997-98 edition of the Repeater Directory, the publication can better focus on its primary use as a guide to voice repeaters for traveling amateurs.

In planning the 1997-98 edition, the ARRL concluded that the Repeater Directory was no longer the most effective medium for this information. Discussions involving various regional digital groups that provide data to the digital section of the Repeater Directory led to the conclusion that TAPR was the logical group to take on the task of a new North American Digital System Directory.

This new database will describe systems used by Amateur Radio stations involved in digital communications in United States, Canada, and Mexico. The Digital System Directory will be based on information provided by regional, state, and local organizations as well as individuals, in a nearly real-time format. This should allow information to be maintained and updated more frequently than in a yearly publication. TAPR will also work with participating organizations to make this information available on TAPR's yearly CD-ROM as well as some future publication for local/regional groups to distribute.

The purpose of the Digital System Directory is not to manage, coordinate, or regulate the usage of digital systems, but to provide the most up-to-date and accurate listing of digital systems that can be provided. Neither is it a formal organization, but a mechanism to allow regional groups to provide and share information regarding digital systems.

The Digital System Directory is intended for use by individuals to further their enjoyment of the hobby, and by organizations to help plan and develop digital networks.

Regional/Local groups have already begun to participate in the process. These groups include TwinsLAN, Texas Packet Radio Society, Miami Valley FM Association, Ohio Area Repeater Council, Puget Sound AR TCP/IP Group, Northern California Packet Association, Northern Illinois Packet Radio Frequency Council, Indiana Digital

Experimenters Association, Central Lakeshore Experimenter's Digital Organization, HogNet Packet Radio Association, YCCC Sysops Association and the Missouri Amateur Packet Radio Society. TAPR encourages other regional groups to support this project by contributing data from their respective areas.

For further information on the project and how to get involved, regional groups should check <http://www.tapr.org/directory> or send e-mail to Carl Estey at wa0cqg@tapr.org.--Jay Mabey, NU0X

ARRL MEMBERSHIP UP IN 1996!

The ARRL ended 1996 with its largest membership in history, by a very healthy margin. The grand total was 175,023--up 1,461 from the previous month as the result of a membership promotion mailed in November. This is an increase of 3,574--or approximately 2.1%--from a year earlier. ARRL Executive Vice President David Sumner, K1ZZ, called the statistics "not bad for the worst business year for Amateur Radio in recent memory." For purposes of comparison, in 1995 League membership showed a decline of about 0.6%.

Full Membership is up by even more--a bit more than 3.1%--reflecting the second year of the League's effort to identify Associate Members who have earned licenses and therefore are entitled to be Full Members. The figures that follow are based on total membership.

The Southeastern Division is now the largest ARRL division, overtaking the Atlantic Division for the first time. The Rocky Mountain Division posted the largest percentage increase for the fifth time in the past six years.-

-Dave Sumner, K1ZZ via The ARRL Letter

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LEAGUE PETITIONS FCC TO CHANGE NEW RF SAFETY RULES

The ARRL has petitioned the FCC to reconsider and reverse portions of the Commission's August 1, 1996, Report and Order that imposed RF-emission safety standards on Amateur Radio, including a 50-W threshold to trigger an RF-safety evaluation. In setting the 50-W threshold, the ARRL said, the FCC failed to consider the effect of antenna height, antenna gain, emission mode, duty cycle or operating frequency. The League asked the FCC either to scale the evaluation threshold by frequency to match the maximum permissible exposure (MPE) limits--directly corresponding to the way the regulation scale the exposure levels with frequency--or to set the evaluation threshold for all HF operation at 150 W at a distance of 10 meters from all parts of the antenna.

At or below that power level and at that distance from the radiator, "you'd be well on the side of safe, even at 100% duty cycle, with any antenna likely to be encountered on HF," said ARRL Laboratory Supervisor Ed Hare, KA1CV, our HQ staff liaison to the ARRL RF Safety Committee. "Some VHF/UHF and microwave station configurations could result in an RF exposure exceeding the requirements of the regulations, so the 50-W limit to trigger an evaluation is more appropriate above 30 MHz," said Hare. The ARRL Laboratory staff is working on a QST article that explains the new RF-safety regulations. "The article will tell hams how to evaluate their stations to be in compliance with the new rules," Hare explained.

Hare also emphasized that all stations, regardless of output power or frequency, still must abide by the specified MPE limits for RF. "Even my 10-mW HF station has to be in compliance with the MPE limits. At that power level, even under the existing rules, I don't have to evaluate whether it is compliance, however; it is presumed that stations running less than 50 W PEP are in compliance."

The new rules, effective January 1, 1997, require licensees of amateur stations running 50 W output or more on any band to conduct a routine RF-safety evaluation to determine if the station could expose people to RF levels that exceed the MPE limits specified in the new rules. (Mobile installations using push-to-talk, regardless of power, are exempt from the environmental evaluation requirement.) In its reconsideration filing, the League called the 50-W threshold "regulatory overkill" and "without scientific basis." Among other things, the League

said the means to conduct RF radiation evaluations are not yet available, and the ability to reconfigure a station that might exceed the new limits "is highly problematic." Coupled with any state and local land-use and RF-exposure regulations that might exist, application of the new rules "may constitute a de facto revocation or modification of the station license," the League said.

"If amateurs cannot operate using outdoor antennas due to deed restrictions, and they cannot use indoor antennas due to concern about exceeding the MPE levels, all amateur communications are precluded."

In addition, the ARRL contends that rules imposed in the Commission's Report and Order "were adopted through flawed procedures." The League said the FCC adopted the rules without advance notice and opportunity for prior comment by those who would be most affected. "Neither the League, nor radio amateurs generally, had any opportunity to comment on, or suggest alternatives to, the rules adopted by the Commission," the ARRL petition said. "The Commission cannot impose substantive rule changes without adequate notice."

The ARRL said that the new rules differentiate between ham stations and other Commission licensees, "which are treated far less restrictively." While the FCC preempted state and local government regulation of personal wireless service facilities based on environmental effects of RF emissions, it refused to do the same for ham radio "without any basis for the distinction."

The League's petition also said the rules in the Report and Order "contain substantive obligations" that affect both individual hams and the preparation of ham radio examinations. The ARRL already has asked the FCC to extend the deadline to change amateur examinations and modify question pools, but the Commission has yet to act on the request. "The Commission failed to address the impact on radio amateurs, amateur groups, or publishers of Amateur Radio examination preparation materials" the League said. Noting that the FCC has not yet issued revised documents to assist Amateur Radio licensees in determining MPE compliance, the League said that, as it now stands, hams have no way to determine the scope of their obligations under the new rules.

The League suggested the FCC vacate its new RF safety rules governing amateur stations and issue a further notice to permit comment on the proposed rules, and, in particular, the 50-W threshold. Hare said the League's proposed HF threshold of 150-W at 10 meters distance from the antenna

"encompasses a much greater range of typical Amateur Radio operation without compromising safety."

According to the September 9, 1996, issue of Radio Communications Report, the ARRL was not the only one to challenge the RF exposure

guidelines. Others filing petitions for reconsideration or clarification are the Personal Communications Industry Association, the Electromagnetic Energy Association, Hammett & Edison Inc (a consulting firm) and the US Department of Defense. *Tnx ARRL Letter*

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