

December 1993



Di-Dah-Dit

The Official Newsletter of the Parkersburg Amateur Radio Klub
P. O. Box 2112 Parkersburg, WV 26101

TEN RULES OF INTERNATIONAL LAW

Other than frequency allocations, there are only ten international laws that specifically apply to Amateur Radio. They state that:

1. Amateur communications are forbidden from one of the countries involved objects.
2. When Amateur communications are permitted, the content must be in plain language and of an unimportant personal or technical nature.
3. Messages on behalf of others are permitted if allowed by the countries involved.
4. Operators may only operate an Amateur station without Morse code knowledge when the communications take place above 30 MHz.
5. It is the responsibility of the countries involved to verify the operational and technical qualifications of its Amateur operators.
6. Operator qualifications and operating conditions must be taken into consideration when authorizing maximum power levels.
7. All General Rules apply to Amateur stations. In particular, the emitted frequency shall be as stable and as free from spurious emissions as the state of technical development for such stations permits.
8. Amateur stations shall transmit their call sign at short intervals. The first characters of a call sign indicate the country of origin of the transmitting station. Prefixes beginning with K, N, W and certain "A" prefixes are assigned to the United States.
9. Amateur satellite stations operating in shared (with other services) bands shall be fitted with appropriate devices for controlling emissions in the event that harmful interference is reported.
10. Nations authorizing amateur stations operating from space must notify the International Telecommunication Union that sufficient earth command stations are established before launch to guarantee that any harmful interference can be terminated.

The International Telecommunications Union divides the world into three areas. North and South America are ITU Region 2. Most major Amateur Radio frequency are the same for all the three ITU regions. This permits Amateurs throughout the world to communicate freely.

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THE THREE IRONIES OF TROUBLESHOOTING

Troubleshooting is the process of eliminating the possible failures, one-by-one. It is ironic because, most of the time, the culprit is not what you expect.

The First Irony: Whenever you are absolutely certain that you have correctly guessed the cause of a failure, you will be wrong.

This is my primary rule for troubleshooting. When you have deduced the cause of failure, you also need to think about the cost of being wrong!

The Second Irony: Whenever you believe that an expensive, hard-to-find component is the cause of your failure, you will be wrong. In other words you should check and replace the inexpensive components first, before you attempt to replace the expensive parts.

The Third Irony: The amount of effort required to replace a component is inversely proportional to the probability that it has failed.

Putting it another way, don't go after the hard-to-replace until you eliminate all other possibilities.

If you decide to fix the equipment yourself, make the simple, low-cost repairs first and the high-cost repairs last.

NOTE This is an excerpt from an article in the November QST by Harry Ricker, KC3MX.

RADIO TIPS USING AN AUTOPATCH TO REPORT AN ACCIDENT

Repeater autopatches allow hams to use their radios to place telephone calls from virtually any location. Autopatches are common throughout the US and they are extremely valuable in cases where there is an immediate threat to life or property. If you come upon the scene of an accident, by all means use the autopatch.

Remain calm and get as much information as you can before placing your call. When it's time to use the patch, don't worry about breaking into someone's conversation. You have priority! Here's a typical emergency autopatch procedure!

Give your call sign and say "emergency patch."

Dial the access code (*) followed by 424-8444 (Vienna does not have 911)

When the dispatcher answers, say that you are an Amateur Radio operator reporting an accident.

Give the Highway number and direction of travel. If the accident site is near a mile marker or exit, provide this information.

State whether traffic is blocked, or if the accident is out of traffic.

List any apparent injuries along with the number of persons involved.

If a fuel or chemical spill has occurred, say so. If there is a fire let the dispatcher know.

For example, "This is KR1S. I am an amateur Radio operator reporting a two-car accident on I-94 northbound, about 1 mile south of exit 24. The right hand lane is blocked, Property damage only."

Keep your details very brief and to the point. Don't waste time adding superfluous information such as the makes and models of the vehicles. If the dispatcher needs to know, he or she will ask. When you've finished your call, deactivate the autopatch and remain on the frequency. If you've stopped at the accident scene, try to stay until help arrives. Richard Regent K9GDF (via QST 10/93)

FOR SALE

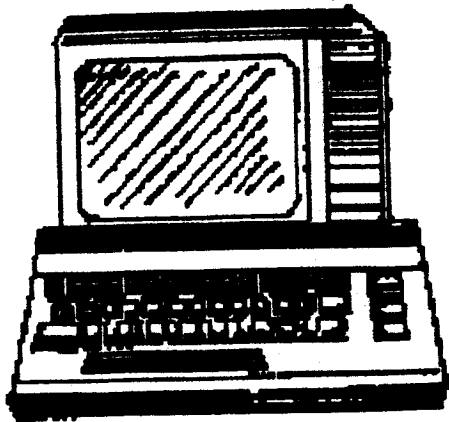
The following items are offered for sale by Rodney McGrew AA8JC. He may be reached at (614) 559-2926 or on 14.325 HF or 146.97 repeater.

Item 1 -- Blackcat JB-1002 FC/M a) Frequency counter (1 to 50 Mhz) b) 3 range power meter (0-20, 0-200, 0-2000) c) SWR Bridge

Item 2 -- homemade 2 meter Quad.

Item 3 -- 10 meter Amp. 300 w. (needs tubes)

Item 4 -- HeathKit HK 232 Modified w/mailbox, Inc. manual



PacketCluster?

QUESTION? I'm new to packet radio and I've been exploring the frequencies in my area. Yesterday, I came upon some odd transmissions. All I could see were call signs (a;; International) and numbers that I think were times and frequencies. What is this?

ANSWER- It looks like you stumbled into a DX PacketCluster. These are specialized packet networks dedicated to DXing and contesting (HF and UHF). A PacketCluster network is comprised of several packet

nodes that transfer information between each other automatically -- usually on 222- of 420- Mhz Bands. Users connect to these nodes on 2 meters.

The purpose of the network is to distribute timely information about DX and/or contest stations. By using your radio and TNC to connect to a PacketCluster node, you can tune into this stream of data. PacketCluster are great innovations for contesters or busy DX hunters who don't have time to search each band for new contacts.

Let's say that 7Q7WW has just started calling CQ on 21.334Mhz. A ham who is connected to the PacketCluster hears him and posts the frequency at his local node. The information travels from node to node very quickly. The nodes also transmit the data to all connected users. (Those call signs and frequencies you saw were transmissions from your local PacketCluster node.) Within a short time, everyone on the network knows that 7Q7WW is on the air. If they need that country, they can move to 15 meters and, with luck, work him.

PacketCluster's are good for more than just DX and contest spotting. You can use the network to determine propagation conditions between your location and another --in the US or abroad. Just enter the command SHOW/M followed by the call sign prefix (such as W8) and you'll learn what frequencies offer the best chances of making contact. Other PacketCluster features include solar activity reports, QSL manager databases, call sign directories, and so on. (Features vary from one network to another according to their sophistication.) You can also send messages to anyone connected to the network and even enjoy live, keyboard-to-keyboard chats.

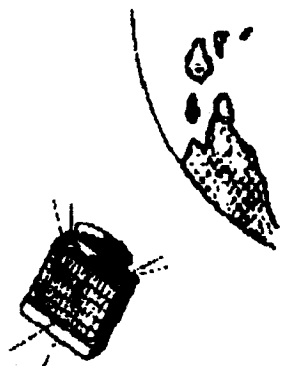
Some PacketCluster networks are quite large with hundreds of users covering many states. Others are relatively small, perhaps only one or two nodes. Why not connect to your local node and try it? For more information about PacketCluster operation- along with a list of PacketCluster commands- pick up a copy of the ARRL book Your Packet Companion. (from 12/93 QST pg. 76) I have a copy of this book if you would like to see or borrow it, KA8NJW.

A VISIT FROM SANTA

Parkersburg (AP)-- Word has been received that Santa will be harnessing his reindeer for a special trip to Parkersburg, WV for the annual Christmas party. This gala event will take place at the Washington Community Building on Dec. 11 at 5:30 PM. Unidentified sources have reported that the elves will take time from their toy making to provide the meat, bread, and drink for the dinner.

Santa requests that you bring a delicious covered dish to share with him so he will be full for the long trip back to the North Pole.

OSCAR 21



Did you know that you can listen to several Amateur Radio satellites without anything more elaborate than an FM rig or a 10 meter radio. There are at least two that I know of that can be heard in this area two times a day. Both of these are in Polar orbit. The first I would like to discuss is RS-14 or Oscar 21 (Orbiting Satellite Carrying Amateur Radio). This is a 18 pound electronics package riding aboard a Russian geological satellite.

This satellite has a transponder (repeater) that is capable of working in 8 different modes that can be changed by ground controllers. Since early 1992 it has been operating in FM repeater mode. In this mode Oscar 21 does three separate jobs on a timed schedule. It is: 0--6 min. FM Repeater 6--9 min. Voice announcements 9--10 min. Packet telemetry

This cycle repeats every 10 minutes. This is subject to change depending on the number of voice announcements but it is fairly stable. Oscar 21 transmits a fairly strong signal on 145.987 Mhz. You can hear it with a rubber duck but a base antenna is better. The uplink is 435.016 Mhz.

The other satellite I would like to mention is the RS-10/11. This is also a Russian satellite that is in low earth, Polar orbit. you can hear this satellite in the upper 10 meter band at about 28.580 Mhz. on sideband. The transponder on this satellite does not work in the FM mode only ssb or cw. You can fig an FM 2 Meter radio to work but not well. If you guessed that it uses a 2 meter up-link and a 10-meter down-link you would be correct.

If you would like to hear either of these birds ask around on the repeater for access to a tracking program. Quite a few hams have them as some are Shareware.

There is one other FM source in orbit that you can talk to if you have patience, time and luck. The Russian MIR is heard on 145.55 Mhz. The cosmonaut are active on voice as well as packet. Their schedule is varied and it may be hard to catch them on the air.

More information can be found in QST or the Communicator about working these birds. If you are interested ask around a bit, several hams in the area have worked these spacecraft. J W.

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