

QST 

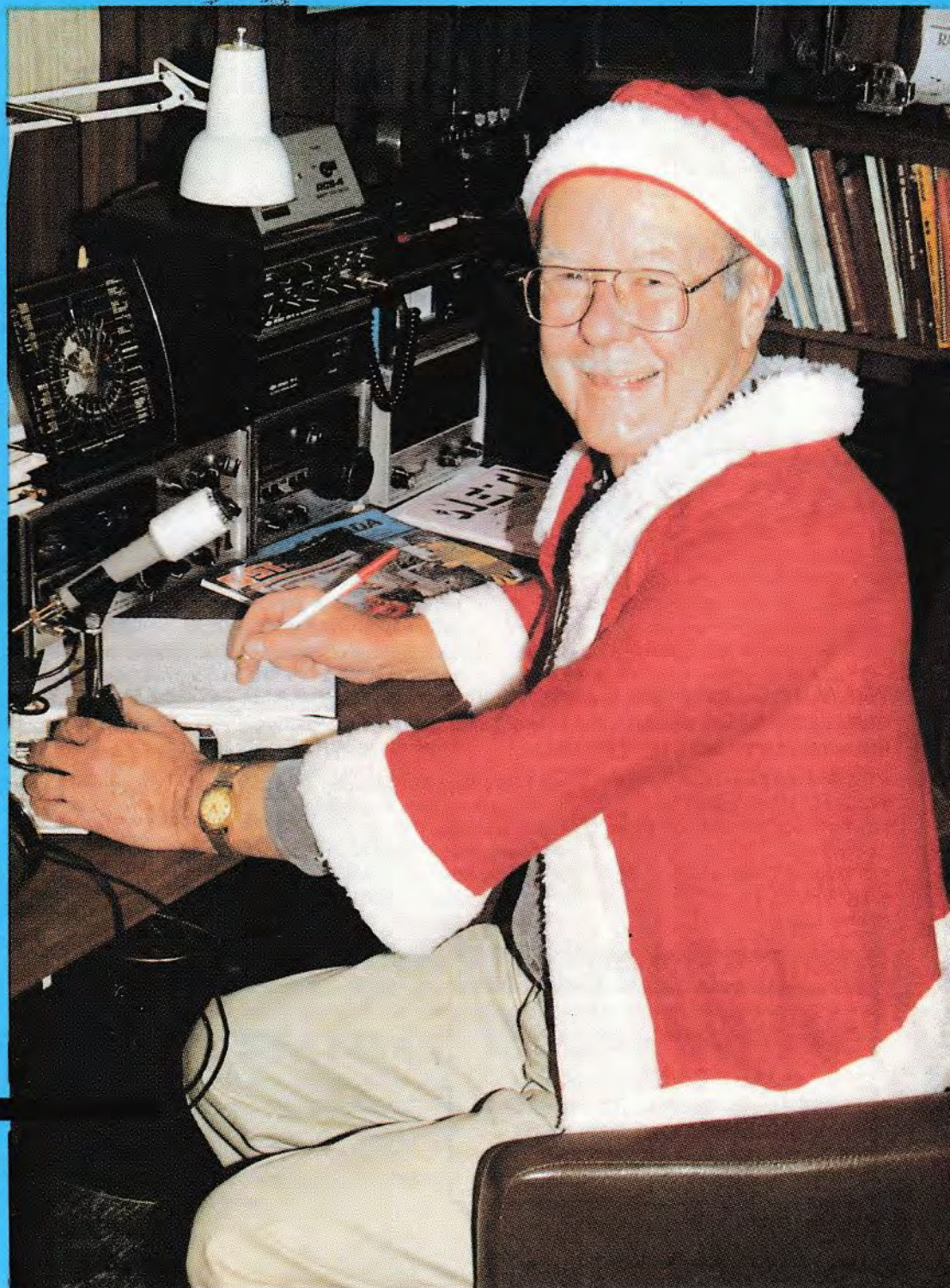
CANADA

Official Journal of the Canadian Radio Relay League
Journal officiel de la Ligue Canadienne de la Radio Amateur

**Chicken
Dinners
and RF**

**Where
are the
VE8s?**

**\$2.50
December
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The Canadian Radio Relay League (CRRL) is a noncommercial association of radio amateurs organized for the promotion of Amateur Radio communications and experimentation, for the establishment of networks to provide communications in the event of disasters or other emergencies, for the advancement of the radio art and the public welfare, for the representation of radio amateurs in legislative and other matters, and for the maintenance of fraternalism and a high standard of conduct.

CRRL is incorporated under the Canada Corporations Act. Its affairs are governed by a seven-member Board of Directors elected every two years by the CRRL general membership. CRRL is noncommercial, and no one who can gain financially by the shaping of its affairs is eligible for membership on its Board.

CRRL is the Canadian member-society of the International Amateur Radio Union (IARU). "Of, by and for the Canadian Radio Amateur", CRRL numbers within its ranks the vast majority of active amateurs in the nation and has a proud history of achievement in amateur affairs.

A bona fide interest in Amateur Radio is the only essential requirement for membership. An Amateur Radio licence is not required, although full voting membership is granted only to licensed amateurs in Canada.

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“It Seems to Us.../Il nous semble...”

Commercial Transmitting Equipment Only

What can we say about the current Communications Canada proposal to Restructure the Amateur Service? We like the no-code entry-level certificate offering privileges on the VHF-UHF bands, and we like the way the expansion of privileges from the VHF-UHF bands to the 80-metre band to the remaining bands offers a logical progression from local to regional to worldwide communications. We're a bit less enthusiastic about 1) the concept that some amateurs will be licensed as "communicators" while others will be licensed as "technical experts", and 2) the small number of privileges Communications Canada is offering amateurs who complete the second technical exam. This could split the Canadian Amateur Service into two groups and put the ultimate quality of the Canadian Amateur Service in doubt. Finally, we're very unhappy about the provision that limits amateurs who do not hold the second technical certificate to "commercial transmitting equipment only".

Why do we feel this way? The provision leaves the suggestion that technical competence is not important. The provision is contrary to the International Telecommunications Union definition of the Amateur Service which describes it as one of "self-training and technical investigation". The provision is an anomaly in the worldwide Amateur Radio community. Even in Japan, where certain amateurs must use approved transmitting equipment, it is possible for amateurs to build their own transmitting equipment and have it approved. For certain bands in the UHF and microwave range there is little commercial transmitting equipment available. The provision will limit use of these bands. Finally, the term, "commercial equipment" is ambiguous. We know that it includes Icom, Kenwood, Yaesu and Heathkits. But what if an amateur has a business homebrewing QRP rigs for resale? Is that "commercial equipment"?

Why has Communications Canada included this provision? Apparently, Communications Canada is concerned about possible interference. But we think it is just as easy to misadjust a control on a commercial rig as one on a rig that has been homebuilt, and that, in both cases, the solution to the problem is the same: technical competence. It does not have to be heavy: just a basic understanding of what is behind each control — whether it's on the front panel of a \$3000 transceiver or a screwdriver adjustment in a transmitter built from junkbox parts.

Nowadays, very few amateurs build their own transmitters. By Communications Canada's own count, only 4 out of 65 (6%) recent construction articles in *QST* deal with the home building of transmitters. It is also true that amateurs without the highest-class technical certificate will be able to build all kinds of other things: receivers, modems, antennas, and monitoring devices like power meters and SWR bridges. But if it is true that very few amateurs are building their own transmitters, the potential for creating interference will be very small. So why discourage building transmitters — a tradition that dates from the earliest days of Amateur Radio? It is an option that should always be available to every Canadian amateur.

—Harry MacLean, VE3GRO

JACK RAVENSCROFT, VE3SR: SK
Only hours before we were to send this issue of *QST Canada* to the printer, we learned that Jack Ravenscroft had died. The news was not totally unexpected. Two weeks before, we learned that Jack had gone into the hospital for what appeared to be a minor stroke. Unfortunately, the doctors found a malignancy — one on which they couldn't operate — and we all understood that the end was near.

There's a lot more that should be said about Jack than we can say in a few short paragraphs written against a printer's deadline. Over the next few months, we'll do some research and try to chronicle some of the events of the last few years of Jack's life. Unless you're very new to Amateur Radio, you'll know it's quite a story: a neighbour with RF-susceptible equipment; an adverse lower-court ruling that took Jack off the air; a massive outpouring of support from radio amateurs across the country; an appeal to a higher court and a new ruling that, while not perfect, made it possible for Jack and for all of us to carry on our Amateur Radio activities without undue concern that a neighbour's complaint would shut us down.

We never met Jack personally. We corresponded with him many times and we spoke on the telephone once. In his letters and in our one long conversation, we could sense a warmth and a concern but no trace of vindictiveness. Jack just wanted to put his celebrated case behind him, for himself and for all Canadian amateurs.

Our thoughts go out to Jack's wife, Helen, and to all of Jack's family. We miss Jack too. Certainly, we will never forget him.

—Harry MacLean, VE3GRO

December/décembre 1988 1

All letters will be considered carefully. We reserve the right to shorten letters in order to have more information and views presented. The publishers of *QST Canada* assume no responsibility for statements made by correspondents.

YOUNG AMATEURS ARE OUR FUTURE

Sir: I suppose you all know that the average Canadian ham is 55 years old. I have no problem with this, except what will happen to our hobby fifty years down the road when today's average ham is several years dead?

We need to recruit new hams — badly. September *QST* showed seniors getting into ham radio. I have no problem with this either, except that the effort could have gone into recruiting young hams instead.

Why young hams? It's pretty obvious. Kids are the future of this hobby, like it or not. And kids will be more enthusiastic about this hobby than anyone else, especially if they can get other kids in with them. Many of you are saying, "All kids care about is television and their computers — what about ragchewin' and DXin' and CW?" Well people, *I am 15 years old* and an avid CW nut. Sure, I love computers, but

kids can and will do everything the OTs do.

Guys and gals, once we get kids into our hobby, please help them out. *Assume that kids can become hams.* If I'm asked once more at a flea market, "Is your father a ham?", no matter how polite and friendly, I will be upset. I have been a ham for three years and I intend to keep on being a ham. I've got my Advanced and my dad never even heard of ham radio before I got into it. Don't avoid QSOs with a person because he or she is young. I know there's nothing malicious in it, but you do. My guess is that you feel uncomfortable or you don't know what to say. But we are hams and that does mean we have a fair bit in common.

Anyway, how do we get kids into radio? It's not hard. The best thing to do is to show them. Invite the neighbour's kid into your shack. Set up a demonstration station in a nearby school. (It's been my experience that if you announce on the air that you're operating a demonstration station, you'll get an

answer.) Show them voice and packet and satellite communications. No sense in showing CW; they won't understand a word! Jim Cleveland, VE1CHI, a grade 12 science teacher, has had one of these stations for the last five years. It generates all sorts of excitement. He has someone man a CW booth to teach kids their name. If they can show one of the hams they can do their name, they get a certificate. The booth usually has more kids around it than the operating station. Don't be afraid to let the kids use the microphone or keyboard or whatever. If you're the control op, it's perfectly all right. No one will embarrass you or ham radio by being silly on the air.

This would make an excellent project for any club (although here in Halifax, it's much more Jim's time and effort than a club's). Come on guys and gals, and let's share this hobby with some of the most enthusiastic potential hams in the world — the kids. —Jonathan Dursi, VE1CBP

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We are now open Saturdays from 9 am to 5 pm. Weekdays, for the present, are restricted to appointments for any time between 5 am to 10 pm. We normally are not maintaining a regular schedule during the week and therefore an advance appointment is essential to ensure your visit is successful. Sundays and holidays we are closed.

We carry a vast assortment of items ranging from medical, laboratory, scientific, photographic, optical, antiques and other strange pieces for the experimenter and enthusiasts as well as schools, labs and electronic firms. If in the area when we are open, feel free to drop in and browse through two floors loaded with surplus.

We are always happy to answer queries by phone or mail. Don't hesitate to phone us any time at home or warehouse. If by mail, a postage stamp to defray the cost of a reply would be appreciated. Due to the nature of surplus very few items are stocked in depth and as a result it is impossible to prepare a catalogue or listing which would remain valid for even a short period of time.

Our December items include:

(1) For the experimenter we offer fibre optic cables approx. 6' + long, jacketed in 105 C PVC with ends terminated & ground. Non coherent layup, ideal for getting light into out of the way places. While they last \$7. per length (2) IIP signal generators, 50KHz to 65 MHz, models 606A and 606B. \$120 for the A's and \$150 for the B's. (3) Cushman CE3 Communication Monitors complete with 301 scope plugin, 304B preselector plugin plus one other plugin of our choice. \$1900. (4) Simpson Model 635 VOM's. AC/DC amps/volts/ohms plus AC/DC volts to 6Kv. \$30. (5) Hammond variable capacitors, new xmtr type cat #147-511 approx. 400pf, 4x4x7 deep, very similar to Hammond 9000 series peakwv approx. 4000. \$20. (6) Cardwell dual section variable capacitors, new approx. 250pf per section 2-1/2x2-1/2x4 deep rating should be 1Kv minimum. \$10. (7) Marconi signal generator Model 2002AS, solid state with manual. 100Hz to 72MHz, AM/FM/CW, built in calibrator at 1Kz, 10KHz, 100KHz and 1MHz. Counter output. \$300. (8) Small fluorescent lights, 8W transistorized operate from 24VDC overall size 12x2x2. Choice of clear or red covers. \$7. (9) We have a good selection of vacuum pumps both belt driven and direct drive including a large unit with a 1-1/2 HP motor. Call. (10) Jennings variable vacuum capacitor Type UCSXF-1000-15S, 12-1000pf at 15Kv complete with mounting hardware \$140.

Sunday Chicken Dinners and RF

VE4KZ takes a nostalgic look at the days when he was a young amateur, his "Elmer" and a rig that almost didn't make it to the air.

By W. J. Karle, VE4KZ
94 Brentlawn Blvd
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Neal pressed the key. A whooping tone tumbled from the twelve-inch woofer atop his receiver. The rig worked, but there was definitely no nine tone. Releasing the key, a fat spark leaped across the contacts accompanied by a resounding "woomph" from the speaker. To describe the keying as having clicks was being polite.

We had just built a one-tube transmitter. The naked tube rested on the bench. A rat's nest of wires connected it to the power supply, crystal and tank circuit. The key was wired into the cathode lead and it was well above ground potential.

These were the sixties. Neal was a generation older than I. His patient wife, Barb, put up with two strapping boys, a couple of dogs and Neal's hobby. They lived in a little out-of-the-way town in a rambling clapboard house dominated by a tribander.

I had biked over this Sunday right after church. With perfect timing, I had hit their Sunday dinner: fried chicken, mashed potatoes and the *piece de resistance*, apple strudel. Sated, Neal and I sidled down to the ham shack and workshop.

Neal was a tinkerer. He dreamt up ideas and beat the components until the ideas worked or puffed into smoke. I was better grounded in theory. "But grounds don't radiate," he often said. "Ya gotta get those ideas outa the books and into the open where they can radiate."

He pressed the key again. The same results. "Sounds pretty sad," he admitted, rubbing his grizzled chin. "What d'ya think we ought to do?"

"Let me see the schematic."

"The only one is in my head," he replied. During all the years that followed, I only once saw him use a drawing, when he began to tussle with transistors. Being a "tube man", he never became comfortable with "flowing holes".

I wondered how I could salvage the situation. I suddenly decided to look up the tube's parameters and base diagram. "I'll check the voltages, Neal." Folding his lanky frame into his operator's chair, he puffed on his pipe and diddled with the receiver. I poked into circuitry.

"Learn anythin'?" he asked.

"I've measured all the potentials. They're on the money."

"That's good. Now we know about the voltages. What's next?"

"The currents," I replied, switching off the rig in order to cut into the plate line.

Neal raised a hand. "Let's stop here a moment. Yer doin' book learnin'. Ya gotta figure what the problems are."

"It doesn't sound good," I shrugged. "It's got some chirp and key clicks."

"Exactly, but how do ya get rid of those?"

And so, a lesson was taught: State the problem, identify some solutions, and try each one until the problem was solved.

The rest of the afternoon was productive. The crystal current was reduced a little and then increased with little or no improvement. The circuit was then changed from a Pierce oscillator to an electron-coupled oscillator. Wow, such pure tones! Some added filtering and the "woomph" actually became a small click, eventually undetectable a few kHz off frequency.

Many Sundays passed this way. We built several rigs, each more capable and powerful than the last. My folks had concerns that I was making a nuisance of myself but otherwise had no misgivings about what I was doing. As long as it was ham radio!

Well, that's not quite true. One evening we were at the supper table. My brother and sisters were wolfing their meal but I was only picking at mine because, earlier, I had again successfully timed my arrival at Neal's to partake of the midday meal.

"We're building a one-thousand-watt transmitter," I enthused to the usual parental question: "How was your day?"

My brother and sisters kept wolfing. Mother and Dad lowered their forks. "Oh?" they said in unison.

"Yes! It's going to run one thousand watts on CW and phone. We're going to mount all the parts in a six-foot high rack. It's going to need 220 volts. Regular house current won't be enough. We've got a pair of 813s with 2000 volts on the plates and..."

"That sounds pretty dangerous, 2000 volts," observed Dad.

I knew that I was on hazardous ground

and I wondered if grounds could be dangerous. My brain churned for a reply. "No, it shouldn't be. I mean, it won't be. You see, the high-voltage circuits are inside the rack. And we test each circuit..." Before I could finish, my brother knocked over his milk. Thank heavens for clumsy brothers. The discussion of the monster rig dribbled to an end.

A monster it was. Each Sunday it grew some more. The high-voltage supply alone was awesome. The transformer, a metal chunk about a foot on each side, weighed more than a hundred pounds. We couldn't afford solid-state diodes so rectification was by means of mercury-vapour filled vacuum tubes: four 816s in a full-wave bridge circuit. Filtering was done with a choke and a bank of oil-filled capacitors. All except the transformer were mounted on a sheet of quarter-inch aluminum destined to fit into the base of the rack.

Turning the supply on for the first time was scary. Punching the filament "ON" button, a feeble glow came from the rectifiers. A timer relay started its run. It was set for three minutes, the longest three minutes I recall. "Snick," went the relay. The "FIL ON" pilot light glowed.

We looked at each other. Push the plate button," Neal urged.

"No, it's your supply," I replied, edging to the corner of the shack.

He pushed. "Kerchunk" and the plate relay closed. The voltmeter jumped across its scale and, oh, what a beautiful sight: those mercury vapour rectifiers glowing with a dull green-blue light.

I leaned towards the supply. "Those volts are pretty high. I wonder what it'll be under load."

"Let's find out." Neal turned the supply off. Rummaging through his junk box, he found some huge resistors. We wired these up to give us a load which would pull the design current, 500 milliamps.

Neal picked up a wooden stick. The end had a piece of copper flashing nailed to it. A six-foot piece of meter wire trailed from the flashing. He clipped the wire to the chassis. Then he methodically stroked the filter capacitors.

"Ya never know when yer bleeder resistor has burnt. If it has, those caps will be full of volts. Always discharge the supply before ya put yer fingers in there."

The bleeder must have worked as there was no shower of sparks. We hooked up the load resistors and refired the supply. The rectifiers dramatically brightened to a pearly purple.

We made tests with several different loads. We noted the results. "When ya get home," Neal directed, "use those numbers and yer books to figure the percent regulation. Let me know if it's okay for Class C operation."

The regulation was satisfactory and the supply was permanently installed in the base of the rack.

In the following weeks, the rig took shape. We made all the power supplies and the plate modulator. (Back then, SSB was still quirky. AM phone was still the thing.) We worked from the bottom of the rack up. We were approaching the heights now: a kilowatt Class C amplifier.

My junk box turned up a four-section variable which looked as if it might serve as a loading capacitor, a couple of meters and some assorted connectors. Neal traded some old 78 RPM records for a plate tuning capacitor. (To this day, I wonder about the other ham's judgement. Records for a capacitor!)

It was late fall. Leaves tumbled to the ground. The sky hung ominously as I pedalled to Neal's. Snow was not far off.

I hustled to the back door. My face was raw and my fingers were frozen. The warmth of the shack would take care of these ills. A cup of coffee would help too, and not that "decaf" stuff" Barb foisted on Neal. The kitchen was its usual mayhem and Barb was monitoring the fryers and cookers. Ultra thin layers of strudel pastry were lovingly being teased even thinner by her practised hands. The two boys dashed through, grabbing pieces of apple filling.

"Right on time," she noted, glancing meaningfully at the pastry. Then with a smile, "You'll find him downstairs. What's in the knapsack? More junk for 'The Monster'?"

"Yes, some things I found. Neal might be able to use them." I slipped downstairs.

There it stood, the hulk, partly filled with our labours. On the bench was the beginnings of the RF deck, the heart of what had become known as "The Monster". But Neal was hunched over the chassis and he wasn't working. He didn't say hello or even perk up at the sight of the goodies I unloaded on the bench. He was morose.

"It ain't goin' to work," he glumly volunteered.

"What ain't, I mean, isn't?"

"This thing!" He waved at the bench and the rack. "I've played checkers all week. I still can't get everythin' to fit." "Playing

checkers" was Neal's term for moving components about, trying to see where each would be placed.

He slid from the stool and slouched into his operating chair. He glared at the rack, not saying a word or touching his pipe.

I "played checkers" too, but to no avail. Neal roamed into the other part of his basement where a cobwebbed upright piano stood. It was out of tune from the damp and from his boys banging on it.

His fingers wrung a few phrases from the piano, amazing me with this new side of his character. Then with intensity, even passion, he played song after song. Barb wandered down and, without a word, sat next to him and began playing harmony. Happy tunes and sad ones, and old songs that my Dad had sung, filled the basement.

The lowering light signalling day's end interrupted the playing. Surprised at the passage of time and reluctant to break the mood, Neal turned on the piano lamp. The magic escaped to the shadows of the basement. We looked at each other with sheepish grins. "Maybe we ought to eat now," Barb suggested.

"Kerchunk!" Meters leaped upward. And there was no smoke! "Press the key and let's see what gives."

There was a lesson in this interlude. Neal called a couple of days later. "See ya this weekend. I've got it solved." He'd won the "checker game". The lesson: When you can't solve a problem, let it be. Inspiration needs to cook.

The snows came. No more bike rides. A more sensible person would have stayed home. I trudged the miles out to Neal's.

Looking like an Antarctic explorer, I shed my parka and boots on the back landing. This was to be the "day of days", the day I would remember forever. "The Monster" would live.

There it stood. Six feet tall. Black from head to toe, save for its grey hammertone panels. Meters, switches and knobs, only a few of identical style, punctuated the front. A heavy cord snaked to the 220-volt outlet.

Neal stuck his head out from the innards. "That does it." Standing back, he flipped the main breaker.

"Nothing's happening," I said.

"I hope not." Then shutting the door, the panel lights came on and the timer started its count. Neal nodded his approval. "Door open, interlock switch open, and no go.

Shut the door and she's ready to brew RF."

The exciter's RF feed was connected to the amp's input. "I tuned up the grid circuit this morning, so it's set to go," he grunted as he stretched to patch the dummy load to "the Monster's" output. The timer clicked and the "ON" light glowed. Neal's fingers moved to the plate button. He hesitated. Then he slowly depressed the button.

"Kerchunk!" Meters leaped upscale. All showed nominal values and there was no smoke!

"Press the key and see what gives." Neal quickly adjusted the plate tuning and loading. Drive increased. Plate current increased. Dip and load. Dip and load.

"Okay. Let up on the key. Don't want to boil the dummy's oil." I released the key but he couldn't contain himself. "Press it again. Let's see what power we're getting. Twenty-one hunert volts at four-hunert and twenty mils. Where's my pencil?"

"Eight hundred and eighty watts input," I piped.

"How'd ya get that? Never mind. You've got the head for the math. What do we need for a kilowatt?"

"Try five hundred mils." I recalled the tests we had run on the high-voltage supply: The voltage had sagged as we needed more current. Neal increased the loading.

"Come on, five-o-o," he shouted. Then much quieter, "Five hunert." He was enthralled. "The Monster" was alive and he knew it. The shack hummed with milliamps and kilovolts. I held the key down for an eternity. I was enthralled too. The weeks of planning, scrounging, "Playing checkers", kicking ourselves for stupidity and praising ourselves for insights had paid off.

I let up on the key. "Son of a gun. She works!" Neal said, eyes gleaming. "Let's put her on the air.

The first contact on "The Monster" was a piddling six hundred miles.

We glumly looked at each other until the report rolled in. "UR 599 PLUS — CUD CPY U ON A XTAL SET — WAT RIG?"

Neal and I worked many other stations during the next several months, some on phone, some on CW. What a thrill to have one's handiwork hurl thunderbolts through the ether.

"The Monster" was one of the last of her breed. SSB was replacing AM phone. We eventually built a different amplifier for SSB and CW. The new amp easily delivered a kilowatt continuous duty. It didn't even get warm in amateur service. But, somehow, the second amp was never like "The Monster".

I haven't seen Neal in years. Yet I know that if I entered his shack today, we'd pick up the soldering iron and prod electrons and, yes, even a few holes, to give us the perfect rig. And after a while, maybe we'd have some chicken and a tune on the piano.

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Exercice SERABEC/RAQI

L'organisme volontaire SERABEC (Sauvetage et Recherche Aériens du Québec, Inc) organisait à Casey, Québec les 8, 9 et 10 juillet derniers, une simulation de recherche d'un aéronef disparu en forêt dans la partie nord-ouest de la Région administrative québécoise 04, à 70 milles nautiques au nord-ouest de Lатуque.

Comme cet organisme prévoyait certaines difficultés faire ses communications avec les stations de contrôle-aérien (FSS) de Roberval et de Québec, il n'en fallait pas plus qu'on fasse appel aux radioamateurs du Réseau d'Urgence RAQI (Radio Amateur du Québec) pour établir un réseau de communications pour l'acheminement des plans de vols (ouverture et fermeture) et aussi du trafic en général vers ces centres.

Après avoir été approché par l'organisme SERABEC, le coordonnateur provincial Jacques Pamerleau, VE2 AB, demandait au coordonnateur de la Région 04, Claude Brunet, VE2 ZZ, accompagné de Yves Durocher, VE2 GUO, de se rendre à Casey pour organiser les opérations de communications. Il faut se rappeler ici que l'aéroport de Casey, a été construit pour desservir la ligne DEW et est présentement désaffecté et abandonné. La piste a 9000 pieds de longueur et est toujours en excellente condition. Etant donné que cet aér-

oport est désert, un petit village complet a dû être érigé de toute pièce, y compris tout le matériel logistique nécessaire à cette fin par les quelques cents volontaires participant à cet exercice.

Immédiatement après leur arrivée à Casey, les radioamateurs précités débutaient l'installation de l'équipement portatif du Réseau d'Urgence RAQI. Ce matériel radio a servi à acheminer de Casey vers le poste-radio installé à la Région administrative 02 de Jonquière. De là elles étaient immédiatement réacheminées aux stations FSS de contrôle-aériens de Roberval, Québec et Montréal.

Les opérations de la Région 02 étaient sous l'habile contrôle de son coordonnateur du Réseau d'Urgence RAQI, Serge Beaumont, VE2 BWA, secondé par Claude Tremblay, VE2 DXJ.

Pour se faire une idée de l'importance de l'exercice, disons que l'organisme SERABEC attendait entre 40 et 50 avions provenant de toutes les régions du Québec. Malheureusement, la météo étant seul maître, seulement 20 à 25 avions se sont présentés, incluant un gros hélicoptère de type "Rescue" de la base des FAC de Bagotville, ainsi qu'un avion de type Buffalo venant du Centre de Coordination de Sauvetage (RCC) de Trenton, Ontario.



Claude Brunet, VE2 ZZ, opérant la station d'urgence HF portable VE2 RUM à Casey. (photo Rejan Bergeron)

Nous remercions M Raoul Proteau, président de SERABEC, qui nous a donné l'occasion de prouver le potentiel des radioamateurs en situation de communications d'urgence. M Proteau nous a d'ailleurs assuré qu'il y aurait d'autres projets de recherches aériennes qui sont en préparation et qu'il ferait encore appel à nous pour la circonstance.

Un gros merci aux amateurs qui ont bien servi de près ou de loin la cause du Réseau d'urgence RAQI et nous tenons à leur exprimer notre plus grande satisfaction pour le magnifique travail accompli. — Claude Brunet, VE2 ZZ

RESTRUCTURING UPDATE

What's the latest on Communications Canada's (Com's) plans to restructure the Canadian Amateur Service? At press time, Com had just prepared a draft version of its next-to-final proposal. Basically, requirements and privileges are as described in the 1988 May *QST* "Canadian NewsFronts" column: a no-code VHF-UHF entry-level Certificate A; a 5-WPM code Certificate B permitting all modes on 3.5-4.0 MHz; a 12-WPM code Certificate C permitting all modes on the remaining HF bands; and an advanced technical Certificate D permitting use of homebuilt transmitting equipment and maximum legal power on bands allowed by the other certificates held.

What was not known last May was how existing amateurs will fit into the new structure. The current Com proposal spells this out. All holders of the present *Amateur* and *Advanced Amateur* certificates will be deemed, by regulation, to hold the new A, C and D certificates. That means all bands, all modes, maximum legal power for holders of the *Amateur* and *Advanced Amateur* certificates. All holders of the present *Digital* certificate

will be deemed to hold the new A and D certificates.

What's next? A notice in the *Canada Gazette*, an opportunity for public comment (CRRL and CARF will continue to push for elimination of the "commercial transmitting equipment only" provision for holders of Certificate A), and implementation of the new structure before the end of 1989.

NOTES FROM ALL OVER

□ The Radio Society of Ontario (RSO) has decided to disband. In announcing the decision, which followed a special meeting held in Thornhill, Ontario, on October 15, RSO officials noted that many former RSO people were responsible for the creation of CRRL and CARF, Canada's two national Amateur Radio organizations, and that CRRL and CARF were serving Ontario amateurs well. The decision has now been referred to RSO's solicitor who will handle the legal aspects of the disbanding and the distribution of RSO's assets. These include the Clifford Marsh Amateur of the Year Award which will be turned over to CARF, and the Keith Russell and Rusty Brennan Field Day awards which will be turned

over to CRRL. CRRL will also become sponsor of RSO's Ontario Amateur Radio Service (ONTARS) Net.

□ Amateurs in Ottawa and Calgary are now relaying packet radio communications via an experimental link using the TeleSat ANIK C2 satellite. Gateways to the link, which pass traffic at 9600 baud, are OTTSAT (VE3RWJ-1) operating on 145.07 MHz, and CGYSAT (VE6PAK-1) operating on 145.01 MHz. The link will be available 24 hours a day for at least the next year.

□ The ARRL Digital Committee is recommending that the 1990 Amateur Radio Computer Networking Conference be held in Canada. Likely locations: Ottawa, Toronto or London, Ontario. This year's conference, attended by some 160 amateurs from across North America, was held at John Hopkins University, Columbia, Maryland, on October 1. Presentations included papers on packet radio transmissions as fast as 56 kilobauds, the new Microsat store and forward packet radio satellites scheduled to be launched early next year — and one presentation by a Canadian: "International Routing Designators" by Dave Toth, VE3GYQ.

Closeouts & Specials of the Month ..



IC-3200 IC-3200A 2 Meter/440MHz Dual Band Mobile

ICOM's IC-3200 brings you deluxe dual band FM operation in a package no larger than a 2 meter unit, and it's loaded with innovative features. There's 10 memories, scanning, memory lock-out, 38 built-in subaudible tones (USA), LCD readout, MARS/CAP operation, 25 watts output, and a built-in duplexer for using a dual band antenna. 140-150; 440-450 MHz

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- Compact was \$899
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IC-471 IC-471H (75 Watt Version) 440MHz/FM/CW/SSB/Transceiver

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- Scanning 430-450MHz CLEAROUT !!
- Adjustable Tuning Speed was \$1769
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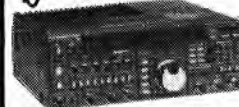
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- Slim Line CLEAROUT !! !!
- Scanning was \$739 NOW \$539
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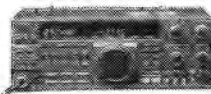


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The International Callbook lists 500,000 licensed radio amateurs in countries outside North America. Its coverage includes South America, Europe, Africa, Asia, and the Pacific area (exclusive of Hawaii and the U.S. possessions).

Every active amateur needs the Callbook! The 1989 Callbooks will be published December 1, 1988. Order early to avoid disappointment (last year's Callbooks sold out).

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89 North American Callbook	---\$38
89 International Callbook	---\$40
*Both Callbooks (before Dec 31)	\$70
Callbook Map Library & Atlas	---\$20
89 ARRL Handbook (Avail. Nov)	---\$32
New Antenna Book 15th Edition	---\$28
Antenna Book 14th Edition	---\$14
Antenna Compendium	---\$18
W1FB Antenna Notebook	---\$14
W1FB Novice Antenna Notebook	---\$14
RSGB HF Antenna For All Locatn	---\$22
Yagi Antenna Design	---\$23
Operating Manual	---\$23
Gateway to Packet Radio	---\$18
Repeater Directory 88/89	---\$ 8
Ham Amateur Radio Handbook	---\$15
Grove Shortwave Directory	---\$30
89 Passport to Worldband Radio	---\$20
88 World Radio TV Handbook	---\$30
Ontario Maruteq Scanner Freq.	---\$16
Quebec Maruteq Scanner Freq.	---\$16
CRRL Canadian Callbook	---\$20
World Ham Net Directory	---\$13
Muzzled Media	---\$11
Basic Guide to VHF UHF Radio	---\$11
Secrets of Successful QSL'ing	---\$13
Introducing International Radio 7	
Uno Dos Cuatro Guide to # Stn	---\$10
Zbarsky Licensing Manual	---\$20
600 Questions & Answers	---\$10
QCC Question Bank Amateur	---\$10
QCC Question Bank Advanced	---\$10
Question Bank Regulations	---\$10
Tune in the World with Cassetts	---\$23
ARRL Code Tape Kit	---\$17
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CRRL Super Log Book	---\$5.25

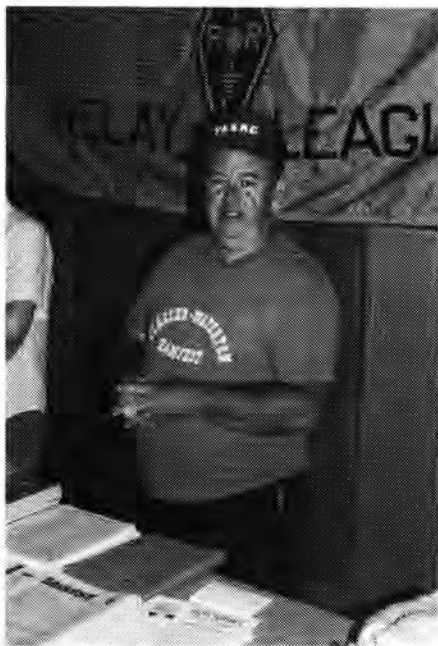
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The CRRL Field Organization Forum



Saskatchewan Section Manager Bruce Rattray, VE5RC, stopped at the CRRL booth at this summer's Brantford, Ontario Fleamar-ket. (VE3GRO photo)

SECTION MANAGER ELECTION RESULTS

Congratulations to Harold Moreau, VE2BP, and Bruce Rattray, VE5RC, who were recently re-elected Section Manager in the CRRL Quebec and Saskatchewan Sections. Both ran unopposed, eliminating the need for balloted elections. Their new terms of office begin on 1989 January 01.

Alberta: SM/STM/DEC: Bill Gillespie, VE6ABC, ASM: VE6AMM, SEC/TC: VE6AFO, OO: VE6TY. Amateur Radio classes get started with a bang in the Alberta area. Looks like we will have a good crop in the spring. Alberta ARES Net got started this month. Those wishing to get into emergency preparedness check into the AARES Net on Sunday mornings at 0825 local time on 3750 kHz. Alberta Public Safety Service getting ready for another site managers' course, including Amateur Radio, November 7-10. Some locals getting ready for JOTA coming up later in October.

British Columbia: SM: Ernie Savage, VE7FB. News from BC for August and September: BCEN (NM VE7EJU) reports that check-ins are holding their own. Thanks to Ross, VE7EGM, for his work as NCS on Sundays, and welcome to Joe, VE7ESA, and Heinz, VE7FRZ. Many thanks to Chris, VE7EJW, for his work as NCS BCEN and RN-7 the past three years. Chris is moving on to Victoria University. He will be missed but we all wish him best of success. Steve, VE7STV, received his ticket in May, 1988, and is an active member of BCEN. BCPS (NM Jim, VE7JN) reports August check-ins: high 185, low 116, total 4621, and September high 206, low 160, total 4806. SM Ernie, VE7FB, XYL

Section Managers of the CRRL: For purposes of the CRRL Field Organization, Canada is divided into seven Sections, each headed by an elected Section Manager (SM). Your SM welcomes reports of individual and club activities. CRRL Field Organization appointments are available for a wide range of volunteer interests. Check with your SM for details.

Alberta	William Gillespie, VE6ABC, 10932 68th Ave, Edmonton, AB T6H 2C1 (403-438-2510)
British Columbia	Ernest Savage, VE7FB, 4553 West 12th Ave, Vancouver, BC V6R 2R4 (604-224-5226)
Manitoba	Jack Adams, VE4JA, 227 Davidson Ave E, Dauphin, MB R7M 2Z4 (204-638-9270)
Maritimes-Nfld	Carl Anderson, VE1BQQ, 25 Lawnsdale Dr, Dartmouth, NS B3A 2N1 (902-469-9756)
Ontario	Larry Thivierge, VE3GT, 34 Bruce St W, Renfrew, ON K7V 3W1 (613-432-5967)
Quebec	Harold Moreau, VE2BP, 80 rue Principale, St-Simon PQ J0H 1Y0 (514-798-2173)
Saskatchewan	Bruce Rattray, VE5RC, 128 Durham Dr, Regina, SK S4S 4Z2 (306-584-2059)

Edna, VE7SH, and son James attended the ARRL National Convention in Portland and were pleased to see so many VE7s there. We're sure they enjoyed the whole affair as much as we did. Edna took sick a few days after the convention, spent seven days in hospital in Olympia, Washington, and had to be flown back to hospital in Vancouver. She is now home recovering. The above is my reason for no report for August.

Maritimes-Newfoundland: SM: Carl Anderson, VE1BQQ. I'm pleased to report that Ned Mulrooney, VO1MN, has indicated he will accept the appointment of Assistant Section Manager (ASM) to provide the SM with support in Newfoundland and Labrador. Ned was recommended for the position by the Society of Newfoundland Radio Amateurs (SONRA). Also, Brian Upton, VE1ZJ, has accepted the appointment of Emergency Coordinator for New Brunswick. Brian has been very active in coordinating Amateur Radio contributions to emergency communications in New Brunswick. Stations wishing to contact Newfoundland and Labrador on the air should note the following net frequencies and times courtesy of Roly, VO1BD: Newfoundland Phone Net - 3785 kHz, daily at 1900 local time; Codjiggers' Net - 3785 kHz, daily at 0930 local time; 40-Metre Phone Net - 7097 kHz, Sundays at 1130 local time; The local (Newfoundland) times do not shift with summer/winter. Make the appropriate conversions to UTC.

Ontario: SM: Larry Thivierge, VE3GT, BM: VE3GSA, SEC: VE3GV, STM: VE3CYR, TC: VE3EGO, VE3PK advises that XL31G was a successful operation, logging 1007 contacts and 54 countries. I looked all over for them but couldn't find them. Hope you had better luck. VE3VW has brought his Thornhill RAC expertise to Renfrew. He will be teaching the Amateur Radio course through the adult education program at Renfrew Collegiate. Anyone, especially teenagers who are interested, should call Al. November marks the 41st Anniversary of the Ontario Phone Net, now operating on 3742 kHz. Everyone seems to be enjoying the recent openings on the HF bands, especially on 10 metres. OPN NM VE3BUO is now VE3IN. The Ontario Trilliums will celebrate their 25th Anniversary on May 19, 1990, and VE3CCO is recruiting a committee to organize a celebration for May 12 of that year. VE3CLT is a member of that committee and she is soliciting ideas and suggestions which may be sent directly to her. On the Ottawa-Calgary Satlink, testing is under way to link these cities for a limited time courtesy of the TelSat ANIK C2 satellite. Access is via VE3RWY-1 OTTSAT on 147.07 MHz and VE6PAK-1 CGYSAT on 145.11 MHz. VE3KKJ enjoyed a good vacation visiting his son in W6 land. VE3IOT has been appointed to the Board

of the CNIB Amateur Radio Program. She goes to the CNIB station twice a week: Members of Peterborough ARC VE3AKS, VE3AAU, VE3GEE, VE3GRL, VE3IQZ, VE3LKG, VE3MT, VE3NTQ, VE3PBM and VE3PXY handled communications for the Trent Regatta. The same club also had a successful Amateur Radio demonstration at the Landsdowne Mall. VE3BZB and VE3CBW are new members of the professional Loafers' Club. Best wishes Gord and Bill. VE3AXM celebrated his fiftieth anniversary as a licensed amateur. New members of QCWA Southern Ontario Chapter 73 are VE3BTP, VE3EWR, VE3OB, VE3MH and VE3RE. Outgoing Chapter 73 President VE3OZW presented VE3ER with the Golden Anniversary Award. Frank was first licensed in 1938 as VE2PI. New amateurs in the Section are VE3EPM, VE3FRS, VE3PLK, VE3TWA, VE3WHT and VE3WRK, while VE3SLL and VE3XOF earned their Advanced. On behalf of the Section's Field organization, may I wish each and every one of you a very merry Christmas and all the best for the New Year, 1989.

Quebec: SM: Harold Moreau, VE2BP, SEC: VE2LYC, STM: VE2EDO, BM: VE2ALE. Season's greetings to all and best wishes for a happy 1989. Nominations for the office of Quebec Director are resolicited. See the November issue of *QST Canada*. Meilleurs souhaits de la saison et à tous une heureuse année en 1989. Avec regret j'ai vous annoncer de décès de ces amateurs: VE2 DZ, VE2 FKA et VE2 ANB.

Saskatchewan: SM: Bruce Rattray, VE5RC. Regina Amateur Radio Association's (RARA's) new executive is President Erwin Jones, VE5ELI; Vice President Tom Hill, VE5TH; Secretary Gordon Codd, VE5GHC; Treasurer Dave Scarfe, VE5VCO; Public Service Bill Munday, VE5WM; Technical Stan Ewart, VE5SC; Ham Classes Johnny Sandison, VE4AAS; Membership Terry Wurster, VE6AHW; Directors Ekke Kok, VE5AFQ, Richard Perry, VE5RGP, and Jerome Kuntz, VE5KZ. Saskatoon has a new repeater, VE5TWO, on 07/67 near Hanley. Welcome back to Bob Shehyn, VE5FY, from West Germany. More provincial surveys coming in with the October 31 deadline and the report will follow. VE5GGC QSL cards have been sent out. VE5s IG, KZ and RC were busy during Hurricane Gilbert with good ham PR on local radio and television stations. Avonlea repeater is in its new building. Fred, VE5FMW, is trying to beat Old Man Winter by getting his tower up before the snow flies. October 3 was International Development Day with CZ5s AAA, EE, ELJ, IG, OI and WM taking part. Fine on-the-air response and good exposure of our hobby to students. It's winter — boo! It's contest time — hurrray! 73.

CRRL BOOKSHELF

STUDY MATERIALS	NON		STOCK		POSTAGE	
	MEMBER	MEMBER	#			
Canadian Amateur Licensing Manual	\$18.75	\$17.00	100	\$1.50		<input type="checkbox"/>
Canadian Amateur Question Bank	10.00	9.00	112	.75		<input type="checkbox"/>
Canadian Amateur Regulations Book	10.00	9.00	190	.75		<input type="checkbox"/>
Canadian Amateur Code Tapes	OT 38.00	34.25	200	2.50		<input type="checkbox"/>
Canadian Advanced Question Bank	10.00	9.00	116	.75		<input type="checkbox"/>
Manuel de formation	18.75	17.00	101	1.50		<input type="checkbox"/>
Banque de questions d'examens premiere	10.00	9.00	113	.75		<input type="checkbox"/>
Banque de questions superieur	10.00	9.00	117	.75		<input type="checkbox"/>
First Steps in Radio	8.00	7.25	470	.75		<input type="checkbox"/>

OPERATING AIDS						
1989 The North American Callbook	OT	32.50	28.25	720	1.50	<input type="checkbox"/>
1989 International Callbook	OT	36.25	32.50	710	1.50	<input type="checkbox"/>
Canadian Amateur Call Directory	OT	20.00	18.00	220	1.50	<input type="checkbox"/>
Log Book	OT	3.50	3.00	121	.75	<input type="checkbox"/>
Super Log Book	OT	5.25	4.50	125	.75	<input type="checkbox"/>
Radiogram Forms	OT	2.00	1.75	170	.75	<input type="checkbox"/>
ARRL 1988 Repeater Directory	OT	7.00	6.00	192	.75	<input type="checkbox"/>
North American Maidenhead Locator	OT	2.00	1.50	800	.75	<input type="checkbox"/>
DXCC Countries List	OT	2.00	1.50	812	.75	<input type="checkbox"/>
1988 Net Directory	OT	2.00	1.50	822	.75	<input type="checkbox"/>
World Map	OT	13.50	12.25	840	2.50	<input type="checkbox"/>

CRRL INSIGNIA						
Lapel Pins	OT	2.50	2.50	130	.75	<input type="checkbox"/>
Large Cloth Diamond (5")	OT	3.00	3.00	141	.75	<input type="checkbox"/>
Small Cloth Diamond (3")	OT	2.00	2.00	151	.75	<input type="checkbox"/>
ARES Circular Patch (4")	OT	4.00	4.00	161	.75	<input type="checkbox"/>
CRRL Logo Decals	OT	1.00	1.00	180	.50	<input type="checkbox"/>

ANTENNA BOOKS						
1988 Antenna Book		24.00	21.50	411	1.50	<input type="checkbox"/>
RSGB HF Antennas for all Locations		21.25	19.00	330	1.00	<input type="checkbox"/>
Antenna Compendium		15.75	14.25	420	.75	<input type="checkbox"/>
Antenna Notebook, W1FB		11.50	10.25	405	.75	<input type="checkbox"/>
Novice Antenna Notebook, W1FB		10.75	9.50	425	.75	<input type="checkbox"/>
Transmission Line Transformers		14.00	12.50	880	.75	<input type="checkbox"/>
Yagi Antenna Design		21.00	19.00	630	1.00	<input type="checkbox"/>

PACKET & COMPUTERS	NON		STOCK		POSTAGE	
	MEMBER	MEMBER	#			
AX.25 Packet Protocol	\$12.75	\$11.50	430	\$.75		<input type="checkbox"/>
#6 Computer Network Conference	14.00	12.50	601	.75		<input type="checkbox"/>
Gateway to Packet Radio	14.00	12.50	900	.75		<input type="checkbox"/>
Get *** Connected to Packet	18.25	16.50	620	.75		<input type="checkbox"/>
RSGB Amateur Radio Software	21.25	19.00	310	1.00		<input type="checkbox"/>

VHF-UHF						
Basic Guide to VHF-UHF		10.75	9.50	790	.75	<input type="checkbox"/>
Proceedings 21 Central States VHF		14.00	12.50	910	.75	<input type="checkbox"/>
Proceedings '87 MidAtlantic VHF		14.00	12.50	930	.75	<input type="checkbox"/>
Proceedings '87 Microwave Update		14.00	12.50	920	.75	<input type="checkbox"/>
RSGB Microwave Newsletter Collection		16.75	15.00	340	1.00	<input type="checkbox"/>
RSGB VHF-UHF Manual		32.25	29.00	370	1.00	<input type="checkbox"/>

OPERATING						
1989 ARRL Handbook		32.25	29.00	494	2.00	<input type="checkbox"/>
1987 Operating Manual		21.00	19.00	522	1.50	<input type="checkbox"/>
Radio Frequency Interference		5.75	5.25	532	.75	<input type="checkbox"/>
Test Equipment for Radio Amateurs		21.25	19.00	360	1.00	<input type="checkbox"/>

OTHER						
RSGB Radio Data Reference Book		21.25	19.00	380	1.00	<input type="checkbox"/>
Complete DXer		15.75	14.25	440	.75	<input type="checkbox"/>
Fifty Years of ARRL		5.75	5.25	460	.75	<input type="checkbox"/>
Gil		7.00	6.25	860	.75	<input type="checkbox"/>
Low Band DX		14.00	12.50	890	.75	<input type="checkbox"/>
Morse Code - The Essential Language		8.00	7.25	610	.75	<input type="checkbox"/>
QRP Notebook, W1FB		8.00	7.25	590	.75	<input type="checkbox"/>
Satellite Anthology		7.00	6.25	700	.75	<input type="checkbox"/>
Satellite Experimenters Handbook		16.00	14.50	540	.75	<input type="checkbox"/>
Solid State Design		17.00	15.25	551	1.00	<input type="checkbox"/>
200 Metres and Down		6.00	5.50	560	.75	<input type="checkbox"/>
K6ATX CQ Ghost Ships		7.00	6.25	851	.75	<input type="checkbox"/>
K6ATX Death Valley QTH		7.00	6.25	853	.75	<input type="checkbox"/>
K6ATX DX Brings Danger		7.00	6.25	852	.75	<input type="checkbox"/>
K6ATX Grand Canyon QSO		7.00	6.25	854	.75	<input type="checkbox"/>
K6ATX SOS at Midnight		7.00	6.25	850	.75	<input type="checkbox"/>

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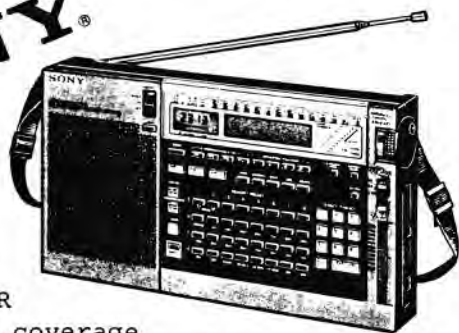
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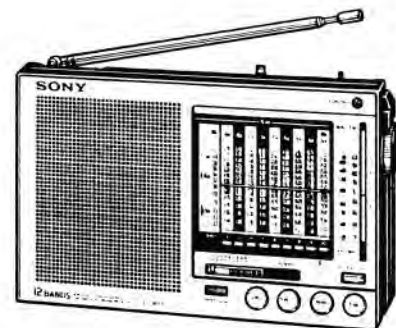
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The 1989 Callbook Supplement is a new idea in Callbook updates, listing the activity in both the North American and International Callbooks. Published June 1, 1989, this combined Supplement will include thousands of new licenses, address changes, and call sign changes for the preceding 6 months.

Every active amateur needs the Callbook! The 1989 Callbooks will be published December 1, 1988. Order early to avoid disappointment (last year's Callbooks sold out).

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* RADIO DATABASE INTERNATIONAL

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\$19.95

Where Have All the VE8s Gone?

From March 3 until June 1, world attention focussed on the Canadian North with the excitement generated by the successful Polar Bridge Skitrek expedition. The skiers and imported Resolute Bay operators have returned home. The use of CI8 (especially for Cornwallis Island's base camp) ceased as of June 15. Who is left to keep the North active on our radio bands? Some of the calls heard from the Northwest Territories include VE8AJ, VE8AW, VE8DX, VE8HL, VE8LH, VE8QST, VE8RCS, VE8TF, VE8YQ — and VE8CM.

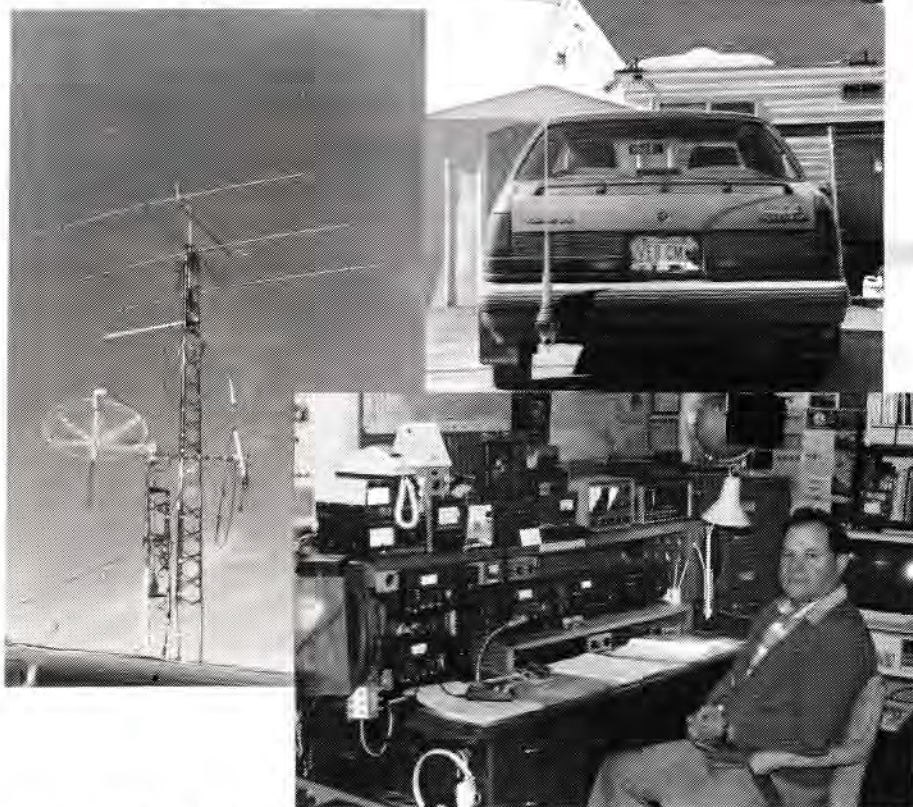
VE8CM is Stewart V Munroe of Hay River, Northwest Territories. This OM is a Central Office Technician with NorthwestTel, Inc, a subsidiary of Canadian National Railways, with over thirty-six years of service. Stew is happily married to Mamie, an RN. They have a family of two. Both children are away getting a higher education which they can not receive in the Territories. Son Larry hopes to become a teacher and daughter Catharine is studying to become a chartered accountant.

VE8CM was first licensed in 1963. He has been a member of ARRL, CRRL, AM-SAT, CARF, Yellowknife Amateur Radio Society (YARS) and the Amateur Radio League of Alberta. As you can see from the photo, Stew has a well-equipped ham shack capable of working all HF bands, and OSCAR A, B and J modes with JL mode a possibility in the near future.

His two-metre repeater is VE8HR: 145.21/144.61 MHz. It requires a 123 Hz tone to access it. A 220-Mhz link is ready to work across the approximately 60 nautical miles to the west to the Fort Providence repeater which YARS will install soon. YARS hopes eventually to link around Great Slave Lake, 480 km to Yellowknife. This is a major undertaking. There are few amateurs in this vast area: two in Hay River and about a dozen in Yellowknife, of which only a few do the work, hi. Does this sound familiar, hi!

Stew has an FB signal on all bands. He's especially helpful with providing a rare Northwest Territories multiplier on a number of bands in the contests. He may just be the one to help you finish off a particular band for your CANADAWARD. Stew is living proof that there really are resident VE8 amateurs who are active. If you have not yet already logged a QSO with Stew, it is likely you will. Name the band or mode and Stew, VE8CM, can handle it.

12 **QST CANADA**



Bottom: VE8CM has a serious look for the photographer before he gets down to some serious operating with his Icom IC-751A and 2KL amplifier. Other goodies such as a phone patch, monitor scope, SWR bridge, Pakratt 232 and Lynker 300/1200 modems, keyer, audio filter and computer help round out a serious station that gets out well on all bands. Middle: Antennas, anyone? Yes, the Delhi 50-foot self-supporting tower is carrying a Hy-Gain tribander, a 2-metre beam, an 80-metre dipole on a 6-foot horizontal standoff, two 80-metre slopers (one north and one east), and other slopers for 30, 40 and 160 metres. In addition, the tower is shunt-fed. Also visible is a homebrew 5-foot dish for 1296 MHz and KLM 2-metre and 70-centimetre satellite antennas with az-el control, switchable polarities and mast-mounted preamps. Top: Cars in the Northwest Territories have distinctive licence plates. This polar bear plate licenses VE8CM's mobile operation in his Mercury Topaz. The car is equipped with an IC-27A for 2-metre FM and an IC-735 for HF operation. An automatic antenna tuner sits in the trunk. (All photos by John Bozer)

QSL CORNER: HOW TO USE THE CRRL OUTGOING QSL BUREAU

The CRRL Outgoing Bureau allows CRRL members to send QSL cards to other parts of Canada, the US and overseas with a minimum of cost and effort.

While QSLing direct is faster, it can also be tedious. Time spent searching for addresses and addressing and mailing envelopes can be better spent chasing DX. Also, the cost of QSLing direct can become prohibitive.

Here is how to use the service:

1. Presort your cards alphanumerically by call-sign prefix. For example: A3, AP C6, CE, G2, G3, GI, GM, 3A2, 6Y5, etc.
2. Group cards by country if they have more

than one prefix. For example, group A6, K6, N6 and W6 cards going to the US.

3. Package tightly and well. Include a current QST address label (or photocopy of the same) as proof that you are a CRRL member.

4. Family members: Include your cards with those of the *QST-QST Canada* recipient. Blind members: write "Blind Member" on package. Affiliated clubs: Cards for club stations will be forwarded. Bulk shipments for club members will also be forwarded, but a *QST-QST Canada* label must be included for each member. QSL Managers: write for details.

5. Do not enclose any payment. The CRRL Outgoing QSL Bureau is a free service for CRRL members.

6. Send cards to CRRL Outgoing QSL Bureau, Box 113, Rothesay, NB E0G 2W0. That's it!

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SPECIFICATIONS AND PRICES SUBJECT TO CHANGE

Metro Toronto ARES

Have you ever wondered how a major metropolitan area would organize its emergency communications? Metro Toronto has an area of 820 square kilometres and a population of 2.5 million. It has about twenty VHF and fifteen UHF Amateur Radio repeaters serving it and its immediate area. There are four fire departments, one Metro police force, one Metro ambulance service and ten Amateur Radio clubs. The ARES Emergency Coordinator for Metro Toronto is Gord Fraser, VE3HSF. We asked him for a rundown on his setup and some comments on some problems he is facing. Here is his report:

"How does an EC educate the professionals in a large and diverse community about the services offered by ARES? In Metro, it took a lot of work to find out who was really running things from an emergency point of view. It took a new monthly newsletter, *Update*, that is sent to all our ARES members. *Update* was also sent to community professionals in the police and fire departments and the ambulance service so they could become aware of our organization and its capabilities. It took the creation of a "missions manual" which outlines each communication mission that an ARES member can carry out. It will require another manual yet to come, an "operations manual", which will outline all the operations requirements that will allow everything to fit together.

"What follows is a snapshot of our ARES group in its drive to get accreditation and a place in the official Emergency Plan for the Municipality of Metropolitan Toronto.

"Each mission in the *ARES Missions Manual* is defined under the following headings:

- Definition
- Duties
- Critical Tasks
- Equipment
- Skills
- Miscellaneous Information
- Network Diagram

"The missions that have been defined to date are as follows:

BASE - Establish and maintain a 25-watt voice link into an ARES-serviced site.

PORTABLE - Establish and maintain a portable radio station.

MOBILE - Establish and maintain a mobile radio station in a designated vehicle.

DATA - Establish and maintain a packet data node at an ARES-serviced site.

NTS - Provide the interface between the BASE and DATA network and the National Traffic System (NTS). Access can be phone or CW. This mission can be carried out at an amateur's home station.

AMTOR - Provide the interface between the packet data network and an HF AMTOR link between Toronto and the rest of the country.

HF CONTROL - Provide net control for



EC John Pedersen, VE3MGR, of London, Ontario, can be ready at a moment's notice to provide emergency communications at the scene of a disaster. (VE3LRB retouched photo)

the HF phone network set up to handle voice and data traffic for outside the Metro area. This mission can be carried out at an amateur's home station.

SITE MANAGER - Be responsible for the management of all ARES activities at an ARES-serviced site.

NETWORK MANAGER - the top ARES management official on duty. Be responsible for the establishment, operation and maintenance of all networks in use at the time. Be responsible for the interface between ARES Toronto and management personnel of agencies for which ARES is

CRRL Field Organization Reports 1988 September



CRRL Section Emergency Coordinator Reports

Reports were received from the following SECs (DECs and ECs reporting to SECs are listed in brackets), denoting a total ARES membership of 662:

Reporting	ARES Members
VE3GV (VE3s EFX, FB, FOB, FUN, GNW, HNH, HSF, JJA, JPP, LKI, SV, TNL)	555
VE6AFO (VE6AMN, CBJ, XD)	107

Service and Specialized Nets

Independent Net Managers: Your monthly reports are welcomed. Send to CRRL HQ, Box 7009, Station E, London, ON N5Y 4J9.

Net (Mgr)	Sess	QNI	QTC
ARES CANADA (VE3GV)	4	76	0
ARES ONTARIO (VE3GV)	1	6	0
ONTARS (VE3LVE)	30	13920	0

CRRL Section Traffic Manager Reports

Call	Orig	Rcvd	Sent	Dlvd	Total
VE1BKM	2	31	33	0	66
VE1VX	6	4	6	4	20
VE1ALU	1	5	6	0	12
VE1IH	6	0	6	0	12
VE1BTV	4	0	4	0	8
VE2BP	4	19	17	18	58
VE2WH	2	14	12	14	42
VE2GE	9	8	8	9	34
VE2EC	4	2	5	2	13
VE6CHK	-	-	-	-	45
VE6GUS	-	-	-	-	28
VE6XV	-	-	-	-	28
VE6ABC	-	-	-	-	8
VE6ANA	-	-	-	-	1
VE7BNI	13	86	138	35	272
VE7EJU	5	92	127	0	224
VE7ANG	0	70	56	10	136
VE7XA	1	21	25	9	56
VE7FB	0	19	13	10	42
VE7BCF	8	3	12	0	23
VE7FME	0	9	9	1	19
VE7BZI	1	3	1	3	8
VE7ESA	0	2	5	0	7

National Traffic System

Net (Mgr)	Sess	QNI	QTC
APN	29	-	-
APSN (VE6AKY)	30	1072	18
ATN (VE6XV)	30	310	82
AARES (VE6AMM)	-	75	-
BCEN (VE7EJU)	30	798	228

Public Service Honour Roll

This listing is available to amateurs whose public service performance during the month indicated qualifies for 60 or more points in the following nine categories (as reported to their SM). Please note maximum points for each category: (1) Checking into CW nets, 1 point each, max 30; (2) Checking into phone/RTTY nets, 1 point each, max 30; (3) NCS CW nets, 3 points each, max 12; (4) NCS phone/RTTY nets, 3 points each, max 12; (5) Performing assigned NTS liaison, 3 points each, max 12; (6) Delivering a formal message to a third party, 1 point each, no max; (7) Handling an emergency message, 5 points each, no max; (8) Serving as an EC or NM for an entire month, 5 points max; (9) Participating in a public-service event, 5 points each, no max. Amateurs who qualify for Public Service Honour Roll 12 consecutive months, or 18 months out of a 24-month period, will be awarded a special certificate from CRRL Headquarters.

PSHR: VE7EJU (280), VE7BNI (79), VE7ANG (132)

Brass Pounders League

This listing is available to amateurs who report to their SM a traffic total of 500 or a sum of originations and delivery points of 100 or more for any calendar month. All messages must be handled on amateur frequencies, using standard ARRL-CRRL form, within 48 hours of receipt.

BPL: None this month.

providing communications.

"Other missions that are being planned but are not yet in the *Missions Manual* are:

DUPLEX - Provide a portable full-duplex voice repeater at a location specified by ARES.

VIDEO - Provide a video link from a remote site into a video duplex repeater.

SATELLITE LINK - Provide a duplex link via amateur satellite for voice and data traffic to other parts of the country and the world.

"At present, Metro ARES is not part of the official Emergency Plan for Metro Toronto. This means that, if there is an emergency declared by the municipality, ARES will not get a call from anyone. However, ARES will be called if the *Red Cross* comes on the scene and they need our assistance. According to Metro By-Law 52-84, an emergency is defined as "... a situation caused by the forces of nature, an accident, an intentional act or otherwise that constitutes a danger of major proportions to life or property." In practice, the police direct all emergency responses in Metro. *At this time, unless we get involved via Red Cross, we cannot conduct our own emergency response in Metro Toronto. In fact, the by-law prohibits emergency operations other than those conducted by the municipality.*

Metro Police are quite impressed with our capabilities, but they do have several very pertinent questions about us. These are:

COMMAND STRUCTURE - Can ARES members take orders? Ask yourself: If you were told to do something but you thought that you knew what *really* needed to be done, would you ignore the command and just do what you wanted?

MEMBERSHIP SIZE - We have about 52 ARES members and there are 2500 amateurs in Metro Toronto. This suggests that emergency work is not a very high priority for the average ham. (It may also suggest that ARES is not well known to the average amateur; the average Metro amateur does not belong to any radio club.) To be effective, we really need a membership of 300. So the police have real questions about our capabilities because of our small numbers.

ID CARDS - The police are pleased with our photo ID cards. They will register the cards and make sure that officers know about them if and when ARES is recognized as an official community resource.

PROPER TRAINING - The police indicated that our *Missions Manual* will effectively enable them to integrate our manpower into their overall organization. They noted that an ARES member familiar with their operations would be far more valuable to them than just an amateur offering some assistance.

"So, gone are the days when a group of amateurs can simply get together and deal with an emergency flying by the seats of their pants, making ad hoc plans and dealing with problems as they arise. Here in

Metro Toronto, only properly trained and accredited amateurs will be of value during an emergency. Other amateurs offering their services will be turned away. Without ID cards, they will not be allowed on the scene. Without training they will not know what is required or understand what is going on."

If you would like a copy of the *Mission Manual*, send five dollars to cover printing and mailing to Metro Toronto ARES, Box 234, Station R, Toronto, ON M4G 3Z9.

—Bob Boyd, VE3SV

ARES is a branch of the CRRF Field Organization, although you do not have to be a CRRF member to take part. It is hoped that this column, which also appears in *The Canadian Amateur*, can become an ongoing source of news and information for members of CRRF and CARF on ARES activities across Canada. ARES members and particularly ECs are invited to send information on what they are doing and on developments they would like to share with other ARES members. Bob Boyd, VE3SV, will pull this together for future columns, with the objective of increasing our collective ability to serve, should disaster strike.

Strays/Méli-Mélo



FREE PARKING!

According to an article in the Australian publication, *Amateur Radio*, radio amateurs in Australia are being given special parking privileges. A resolution which passed the Local Government Organization of Australia, and is binding on all municipal councils, states, "The preparedness of radio amateurs to provide emergency communications during times of natural disaster is highly commendable and, without their help, local municipal disaster

plans could be inadequate." The resolution goes on to provide that Special Parking signs will be erected all over Australia reading: "No Parking Anytime. Radio Amateurs Excepted."

The amateur parking a vehicle in a Special Parking spot must display a call sign on the dashboard of the vehicle. Parking tickets will be issued for those not obeying the rule.

Maybe we could get something similar for ARES in North America... —*Tnx W5YI Report*

ATLANTIC HAMFEST '88



It's a tradition! On the Sunday of each Atlantic Hamfest, all the participants get together for a photo. Here's this year's group at Atlantic Hamfest '88 held in Fredericton, New Brunswick, on August 19-21.

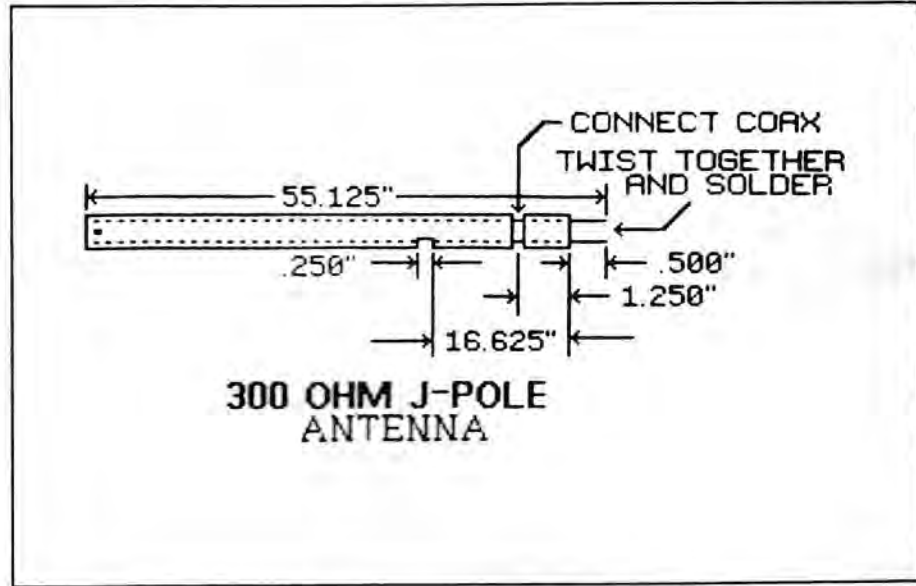
A 2-Metre J-Pole Antenna

This antenna idea has been around for a number of years. The version presented here is by KC7NS and comes to us via *Handi-Ham World*, a publication of the Courage Handi-Ham System based in Minneapolis, Minnesota. The antenna is effective (basically, it's a end-fed half-wave with a theoretical 3 db gain over the common quarter-wave whip), simple to build (all you need is a soldering tool and a pair of side cutters), and cheap (\$ 0.00 if you have a chunk of 300-ohm twinlead kicking around in your junk box). Read on...

1. Cut a piece of standard 300-ohm twinlead to 55.125 inches.
2. At one end, strip 0.500 inch of insulation off both conductors.
3. Twist these two conductors together and solder them. For protection, cover the soldered connection with heat shrink material or electrical tape.

Measurements below are taken from the soldered end:

4. Make one conductor 16.625 inches long by cutting a 0.250-inch notch out of the conductor at 16.625 inches. *Do not remove the unconnected conductor on this side.*
5. At the 1.250-inch point, remove enough insulation from *both* conductors to permit connection to your coax.



6. Connect the braid of your 52-ohm coax (RG58/U or equivalent) to the short (16.625-inch) side.
7. Connect the coax centre conductor to the remaining longer side.
8. Punch a small hole in the insulation at the far end. Attach a string to hang the antenna from a ceiling or any convenient

support.

This antenna can easily be scaled for use on 220 or 440 MHz, or even modified for use with 75-ohm coax for FM broadcast or television reception. (Install it horizontally in these applications.) Experiment a bit — and send the editor of this column your results! —*Harry MacLean, VE3GRO*

In Training/En Formation

Conducted By Mitch Powell, VE3OT
782 North Mile Rd, London, ON N6H 2X8
Tel 519-471-6853

Methods of Learning

I learn best by reading and then doing. You learn best by hearing and then doing. He learns best by seeing it done, never reading or hearing about it, and then accomplishing the task. We all have different methods when we try to learn a new task or concept. I am sure that you have seen this difference in people and can recall examples of each method of learning.

Notes

Can your "hams-to-be" take notes while you are talking and/or using the blackboard to explain that rectifier? Would they be better off if you made a copy of your own notes and handed those notes out in class? Every instructor should develop organized notes using short terms or pictures to serve as guides for lessons to ensure that all relevant material is covered. If you, as an instructor or helper, have organized some notes in this manner, consider that the students may find the notes valuable as a guide

for their own study. Don't ever consider your "lesson plans" top-secret. They can serve as a valuable guide for your students as well.

Consider making brief introductory comments, or single out key words in preparation for the evening's fun. Now, put all those words up in a corner of the board, and the students and you will have a "note pad" on the board, serving as a checklist. I know we don't always cover everything we intend. We get detoured by interesting questions and comments. This is neater than always referring to a little sheet of paper which probably has a grocery list and several important phone numbers on the back!

Here's a way to use some illustrations or graphs that you may have seen and found helpful in understanding lesson material. Cut out the illustration or graph and paste it on a blank sheet of paper. Several such cutouts may be included on the sheet, but

leave room between them. Now, photocopy the sheet and hand it out in class. As you refer to each of the illustrations, comment or do board work, the student can simply add his or her own notes to the sheet and save lots of valuable class time. No need to waste time (we aren't all great artists) waiting for everyone to copy our feeble attempts to illustrate a point.

Where do you get the graphs and illustrations? Look in old radio magazines and textbooks you can buy at a fleamarket. Many of these are filled with every graph and illustration you will need. I have found that the older the magazine or book (that includes the *Handbook*), the clearer and better the material. I regularly use material from 1920-30s books. Remember: Cut, paste and share.

Audiophile

No, it's not a disease but it does sound awful, doesn't it? Of course, I introduce au-

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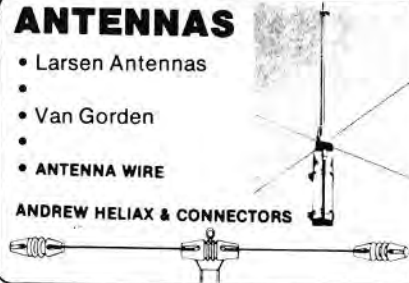
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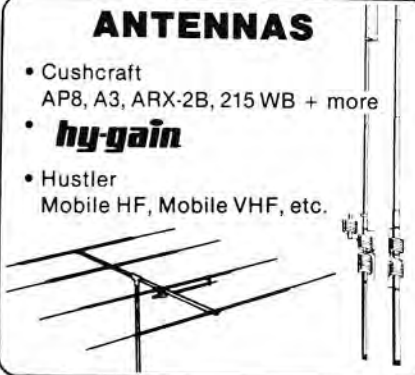
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CHRISTMAS QRM

'Twas the Night Before Christmas
A time to relax
But all over Belleville*
In radio shacks
The hams were still talking
To those and to them
And the channels were choked
With so much QRM.
High over one roof
There arose such a racket.
Is that Santa Claus?
No, that's Syd** sending packet!

The reindeer tried hard
To come in with the toys,
But their radar was jammed
By the radio noise.
Over Trenton they orbited
Almost 'til dawn
Until Santa woke up
With a scratch and a yawn.
"On Dasher! On Dancer!"
Saint Nicholas cried,
But the reindeer explained
That they'd tried and they'd tried.

"It's the noise from that radio club***
And we fear
That we cannot make it
To Belleville this year."
Then Santa reached out
To a little black box
and blasted the hams
With his 2000 watts.
"Now hear this, all you hams,"
the majestic voice said.
"You shut down your rigs
And you get to your beds!"

You all know full well
That you've not been good boys.
If you don't go to bed
You will get no more toys."****
Then a beautiful silence
Fell over the town
From a clear starry night
Sleigh and reindeer touched down.
Now wasn't it lucky for all Belleville tots
That Santa was mobile with 2000 watts?
—Barbara Lester, XYL VE3MB

Notes:

- * Belleville, Ontario; Trenton is nearby
- ** CRRL TC Syd Horne, VE3EGO, of course
- *** Quinte ARC
- **** Rigs, antennas, and other good stuff

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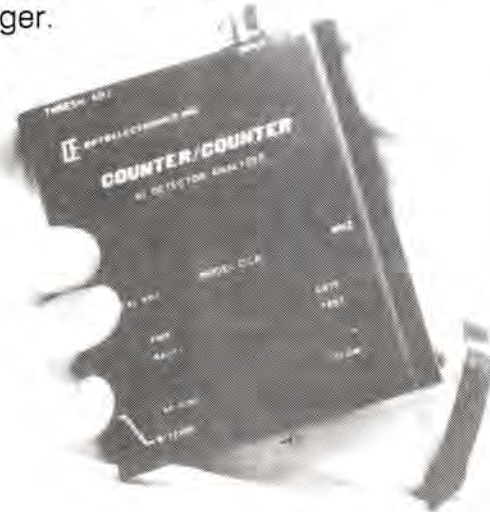
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