



# GUYWIRE

April 2015

A monthly publication of the VECARA Inc. except July and August.

If you wish to receive or be removed from the e-mailing please contact the editor/publisher at the VECARA e-mail address @ ve5rara@gmail.com

Note: all e-mail and web addresses are active hyperlinks

## GENERAL MEETING

April 8th @ 7:00 p.m.

Regent Place Library - Regina Market Mall - 331 Albert St.

**Introduction - mini VNA Analyser**  
**George Harwood**

## ANTENNA RAISING PARTY

I am looking for volunteers for an antenna raising party for the VE5UHF repeater.

I am thinking about Friday April 10th around 10am at Embury House. Located at the corner of Winnipeg St. and 13th Ave.

Job will include getting a ladder up the stairs to the roof plus install of new 2m/70 cm antenna.

If you are able to help, contact me by sending a note to the club email at [ve5rara@gmail.com](mailto:ve5rara@gmail.com)

Thanks - Lyle VE5EE

2015

## PUBLIC SERVICE EVENTS

EVENT      DATE      ORGANIZER

### UPCOMING

RPS Half Marathon -April 26th - Terry (VE5TLW)  
MS Super Cities Walk April 26th - Rick VE5RJR  
Mayor's Run/Walk for Fitness -May 31 - Terry (VE5TLW)  
Run for Women(Mental Health) - June 6 -Rick VE5RJR

### COMPLETED

Klondike Hike Sat. Feb. 21, 2015 Justin VA5RED

Please contact the coordinator directly if you can assist with the event or via [ve5rara@gmail.com](mailto:ve5rara@gmail.com).

---

## **Meewasin Amateur Radio Society**

### **Saskatchewan Hamfest**

**July 3 to 5, 2015**

### **Martensville**

**(Northridge Community Centre  
901 3rd Street North)**

**SAVE THE DATE** and plan to attend the Saskatchewan Hamfest 2015 taking place in Martensville from July 3 to 5, 2015.

#### **RADIO AMATEURS OF CANADA (RAC) AGM;**

We are happy to report that the Radio Amateurs of Canada has chosen to have us host the AGM for 2015. For members or non-members, see what your national representative organization has been up to and interact with the RAC Executive and volunteers.

#### **SASKATCHEWAN AMATEUR RADIO LEAGUE (SARL) AGM;**

Saskatchewan is the only province outside of Quebec that has a provincial organization left. Support SARL by attending the AGM and get involved!

#### **D-STAR TRAINING CLASS;**

Friday night will not only be a meet and greet event, but for those that want to learn more of D-STAR, it is a great opportunity to take in the optional D-STAR Class. More details to follow.

#### **ANNUAL AWARDS BANQUET;**

After the busy program on Saturday, sit down and relax to a home cooked meal and enjoy the awards presentations and keynote.

**TALK-IN: FM VE5CC 146.970 (-600) 100.0HZ T  
FM VE5MBX 145.450 (-600) 114.8HZ T  
DV VA5DR B 448.125 (-5M)  
DV VE5MBX B 449.500 (-5M)**

**COORDINATES: 52.295542N, 106.649443W**

[www.saskatoon-dstar.ca](http://www.saskatoon-dstar.ca)

## **Silent Key**

We regret to report the passing of another local ham. On March 6th, Lloyd Jones, VE5JN/VE5JI became a silent key. Lloyd was an early member of RARA, where he served as club treasurer for many years. Lloyd was also well known as the QSL manager for Saskatchewan for 20 years. He wasn't active on the air in later years but maintained his interest in ham radio throughout.

## **Moose Jaw Flea Market**

**April 25, 2015 - 9:00-12:00**

Western Development Museum  
Contact Brenda VE5TRG for tables, info etc;  
TABLES 5.00

email: [ve5trg@sasktel.net](mailto:ve5trg@sasktel.net)

## **Interesting Websites**

Ever wonder how they change those red lights on top of towers? Go to the following website to see it up close and personal with spectacular video shot from a drone camera of a 1500 foot tower.

[www.youtube.com/watch?v=f1BgZIZRfT8](http://www.youtube.com/watch?v=f1BgZIZRfT8)

Click on the website below to hear what Spock has to say about DX Pileups

[www.youtube.com/watch?v=zLekEzL1jtw](http://www.youtube.com/watch?v=zLekEzL1jtw)

An interesting commercial with a ham radio story.  
[www.youtube.com/watch?v=hxU1ZhINaHk](http://www.youtube.com/watch?v=hxU1ZhINaHk)

ARRL has had a couple of articles lately about ARES being involved in tests or real events. One test I see mentioned today was a drill involving 50 countries, plus the Puerto Rico ARES volunteers. That's at [www.arrl.org/news/view/puerto-rico-ares-takes-part-in-caribe-wave-lantex-2015-exercise](http://www.arrl.org/news/view/puerto-rico-ares-takes-part-in-caribe-wave-lantex-2015-exercise)

---

## World Amateur Radio Day

Neil has been successful in finding a place for an amateur radio display for World Amateur Radio Day. We will be setting up at the Prince of Wales branch library at 445 14th Ave. on April 18th.

Neil is looking for volunteers to set up the display and man it from 11:00 AM to approximately 3:00 PM. He is especially looking for help from newer hams as this would be a worthwhile learning experience.

If you can help, contact Neil at: [gofreikempe@gmail.com](mailto:gofreikempe@gmail.com) or via the club email [ve5rara@gmail.com](mailto:ve5rara@gmail.com)

## Last Months Puzzler

In amateur radio circles, what does the term LDE refer to?

Answer: It refers to long delayed echoes – radio signals which arrive at a receiving point much later than they would through normal propagation. Scientists have not been able to definitely pinpoint the cause but there are 5 main hypotheses. The most popular ones are ducting which occurs mainly at the lower HF bands, and the solar plasma theory. The amazing thing is that LDEs have been noted on both low HF bands and as high as 432 MHz. since 1927. For more information on LDEs Google “long delayed echoes”.

## This Months Puzzler

We hear a lot about the men at the International Space Station who are hams. You may have contacted some of them, but do you know which YL ham holds the female record of 195 days in the space station?

**Answer next month**

## Amateur Radio Roundtable

Reminder - Amateur Radio Roundtable, a live weekly ham radio webcast can be seen at [W5KUB.com](http://W5KUB.com) every Tuesday night at 8:00 PM CDT (0100 UTC Wednesday).

The show covers all aspects of ham radio; such as, balloon launches, Satellite, go-kits, emergency communications, SDR, digital modes, DXing, home brewing, and much more. This week's guests include:

To watch Amateur Radio Roundtable go to [W5KUB.com](http://W5KUB.com), click on Live Events and sign in with your existing User Name and Password. If you don't have a user name and password, just enter your call or name, leave the password blank and hit sign in.

We need your help with topics. If you have a specific subject that you would like to present in a future show, send an email to [<tom@W5KUB.com>](mailto:tom@W5KUB.com)

Join us for fun and interesting ham radio discussions. We'll see you on the webcast!

Tom Medlin, W5KUB

## A Note from the Club Webmaster

Hi all: as you know we are renovating our website and with the new website I want to expand it and add to it.

To expanded it I need content to put up. So I need your suggestions / recommendations of what you would like to see on the website. So any ideas you might have or links you share are greatly appreciated.

Contact me via the club email [ve5rara@gmail.com](mailto:ve5rara@gmail.com)

Justin VA5RED

---

## Wanted by the RARA

A "Club Photographer" is urgently required to cover the various events we partake in.

Most events take photos of their participants, but no one takes photos of the Radio operators, and then we have nothing to publish on our website or in the GuyWire.

Its time we covered our work with photos to show how we contribute to our community.

Please contact us at [ve5rara@gmail.com](mailto:ve5rara@gmail.com) to apply or enquire.

## Repeater News IRLP Reflector 9300

The 9300 IRLP Reflector has been inoperative since we lost our site in the Yorkton Fire Hall. We have been using the alternate Saskatchewan reflector 9012 in the meantime. Randy, VE5RJM has managed to get an alternate location in the Canora Fire Hall and the reflector is now operating there.

During the move they discovered some hard drive problems and either the hard drive or the computer will have to be replaced in the near future. For now, it seems to be working well. The only difference you will see is that the Reflector Status does not appear on the Status page, but this should be corrected shortly.

## Activation of North Korea

On February 28th, DX-World.net broke the news that Dom 3Z9DX had written permission to operate amateur radio from a VERY wanted DXCC entity.

Today, we can reveal that entity is North Korea (P5).

Dom 3Z9DX explains he has received a further

letter from authorities in Pyongyang inviting him to a final meeting to discuss [and for he to accept] rules by the North Korean military and the relevant telecommunications department.

This meeting will take place in December with activity planned for January or February 2016.

According to P5 telecoms, Dom will be permitted only three bands (20-15-10) likely using a multiband vertical from a secured place in Pyongyang with two government supervisors over-looking 24/7. Activity will last for 5 days.

At the moment this is a solo expedition to the #1 Most wanted entity using SSB only. He is working hard behind the scenes to get one more op (CW) to join him.

Please realise this project is a work in progress and to understand that it may only be Dom who operates from North Korea.

More updates / website throughout 2015.  
Any questions via Press Officer, Col MM0NDX.

## The legend of Jack Kilby: 55 years of the integrated circuit

Jack Kilby's small invention changed the face of electronics and made possible much of today's technology.

By Hayden Dingman

It's 1958, and Texas Instruments stands deserted. Everyone at the Dallas-based company traditionally takes two weeks of vacation in July, leaving the the plant empty. Well, almost everyone. Hidden away, quietly toiling within the cavernous Semiconductor Building, is one Jack Kilby. Kilby's the new guy at Texas Instruments--so new he's not entitled to any vacation time yet.

Jack Kilby, dreamed up the integrated circuit when he was a newly hired employee at Texas

---

Instruments in 1958, while he was left alone in a laboratory while most of his Colleagues took a summer vacation.

Kilby won the Nobel Prize for Physics in 2000 for his work.

Kilby's a Midwesterner. Born in Missouri, he spent most of his youth in the oil-rich city of Great Bend, Kansas, named because it nestles up against a curve in the Arkansas River.

He's a lover of amateur radio and Big Band music, a veteran of World War II's Office of Strategic Services (the predecessor of the CIA), and an electrical engineer. Kilby also was seemingly born into technology--his dad, also an engineer, ran a small electric company.

Left to his own devices at work, Kilby decides he'll try and solve the "tyranny-of-numbers" issue facing the industry.

### **Electronic components**

As electronics got progressively more complicated, they also required an increasing number of components. The invention of the transistor in 1947 rendered the cumbersome vacuum tube obsolete, but now you had hundreds--even thousands--of minuscule components to wire together. It was labor-intensive, expensive, and (worst of all) unreliable. Every soldered connection formed a potential point-of-failure in the end product. With thousands of soldered wires, circuits became as fragile as the old vacuum tubes.

When Kilby joined Texas Instruments in 1958 the company already had a potential solution, known as the Micro-Module program. The Micro-Module program sought to make all components the same size, which would then snap together like puzzle pieces to form circuits. However, people still needed to assemble each circuit by hand. It solved the soldering problem, but labor remained an issue.

"Further thought led me to the conclusion that semiconductors were all that were really required--that resistors and capacitors, in

particular, could be made from the same material as the active devices," wrote Kilby in 1976.

Sitting there in the abandoned abode of Texas Instruments, Kilby grabbed his lab notebook and described what came to be known as "The Monolithic Idea"--that resistors, capacitors, and transistors could be manufactured from the same block of material and included in a single chip. Then he sketched out a quick design for a flip-flop circuit using components made entirely of silicon.

### **Semiconductors**

Semiconductors, such as silicon and germanium, are physically unique. In their purest forms, they're just poor electrical conductors--better than an insulator (like glass) but nowhere near as efficient as metal. You can shape how a semiconductor conducts electricity, however, by modifying the base substance with impurities. Kilby realized each component of a circuit could be built from the same material. The individual pieces wouldn't be as efficient as those made with specialized materials--Teflon, for instance, was a better capacitor than a modified semiconductor--but it could be done.

Said Kilby in his 2000 Nobel Prize lecture, "Resistors were provided by the bulk resistance in the silicon, and capacitors were formed at the p-n junctions"--in other words, where two types of impurities met. Armed with his sketches, Kilby went to his supervisor, a man by the name of Willis Adcock, and asked for time to pursue the theory. He got it.

First, Kilby created a prototype circuit made entirely of discrete pieces of silicon. While not housed on a chip, he'd at least proved that a complete circuit could be made from a single material.

Then came the biggest step. At the time, Texas Instruments built transistors from germanium wafers, and Kilby managed to snag a few of these before they'd been cut up. For such an important device, the first integrated circuit

---

is as unpretentious as it gets: a thin ribbon of germanium, crudely glued to a glass slide, the circuit etched in by hand.

On Sept. 12, 1958, Kilby called together the company's executives. He hooked the crude piece of germanium up to an oscilloscope, passed in a current, and a simple sine wave appeared on-screen. It was a sine wave that changed the world forever. The integrated circuit, or microchip, is the foundation of modern electronics. It's the reason you can carry an entire computer in your pocket, instead of owning one that takes up an entire office. It enables the Internet to exist. It's the reason humans landed on the moon.

So that's the legend. Is it the full story? Of course not. Legends never are.

### **History of the integrated circuit**

Like many inventions, the integrated circuit was really a matter of time. Kilby drew upon the works of an Englishman, Geoff Dummer, when coming up with the idea of the integrated circuit. In the early 1950s, Dummer proposed electronics built from a single block of components, but he lacked the technique to make it into a reality. Then there was Robert Noyce (Noyce and Kilby received the Draper Prize together in 1989). Noyce, often referred to as "the Mayor of Silicon Valley," is credited as the co-inventor of the integrated circuit, and for good reason.

Noyce came up with the same idea completely independently, used silicon instead of germanium (silicon operates at higher temperatures), and had an altogether more-refined design. Oh, and he went on to co-found Intel in 1968 with colleague Gordon Moore. Intel, of course, created the first microprocessor, equally important to modern computing. And you probably know Texas Instruments because--at one point--you took a math class and used one of the company's calculators. Oddly enough, Kilby gets credit for that one as well. He and two co-workers, Jerry Merryman and

James Van Tassel, developed the electronic handheld calculator because Texas Instruments needed a way to sell the public on the consumer benefits of the integrated circuit.

### **A modest man**

Kilby might've laughed if called a legend. By all accounts, he was a simple sort, comfortably middle-class and content with his accomplishments--the consummate engineer who believed solving a problem was its own reward.

He died of cancer on June 20, 2005. While proud of the integrated circuit, he was always quick in speeches and articles to lavish praise on the innovators who came both before and after. "I am pleased to have had even a small part in helping turn the potential of human creativity into practical reality," Kilby said in his Nobel lecture.

Yes, Kilby might've laughed if called a legend, but legends are what we remember. So we turn it into legend: Dallas, 1958, an abandoned building and a man who helped to completely change the world while his peers were on vacation.

## **Wise Words from DX Experts**

I have some suggestions to help DXers, including myself, and particularly DXers in Europe, to be more successful. Here is what I see are the issues: (This applies to US hams as well for more distant DX operations – N8PR)

1. Not listening to the DX operator.
2. LISTEN to and LEARN the rate and rhythm of the operator.
3. LISTEN to WHERE the operator is listening, and to his PATTERN of moving his VFO. You MUST KNOW where he will listen next if you expect him to hear you! How simple is that? It is

---

part of the hunt... and the fun of DXing.... and getting rewarded!

4. Learn to use your radio (split/simplex, etc.).

5. Do NOT jump to and call on the frequency of the last station worked. The DX station will NOT hear you, because the din is total unintelligible chaos. Move UP or DOWN from that frequency, as we on our end were continuously tuning up or down after each Q. So, if one jumps onto the last-worked frequency, we will not hear you, even if you were the only one there, as we have already tuned off that frequency.

6. TURN OFF ALL SPEECH PROCESSORS AND COMPRESSION! Do NOT overdrive ALC. There is a night and day difference in listening to NA/AS and EU pileups. The horrible distortion makes it impossible to copy many, if not most European callsigns. I don't know what it is, but I would bet that mic gain and compression controls are "firewall forward," all the way clockwise. There were MANY loud stations that we did not work, COULD NOT WORK, simply because we could NOT understand their terribly distorted callsign. Have you ever listened to yourself in a pileup? We gave many stations a "19" signal report. Very loud, but extremely unintelligible! You want to have IN-TELLIGABILITY, not distortion!

7. Give your callsign ONCE and ONLY ONCE! DO NOT KEEP CALLING! Call. Listen. Call again, if needed. Listen. Listen. We would tune on by those who did not stop calling. We are looking for RATE and getting stations into the log. You should be, too!!!

8. If the DX station comes back with your callsign, DO NOT REPEAT YOUR CALLSIGN, AS WE ALREADY KNOW IT, or we would not have answered you. Many stations (in all modes) would repeat their callsign two, three and even four times or more! This was so frustrating at times, that we would just move on to the next station. We ONLY want to hear "5NN" or "59" from you. Anything else is a total waste of time.

Let me repeat, if we come back with YOUR callsign, DO NOT REPEAT

it back to us! (Did I repeat myself?..... forgive me!) It CHEATS others out of a chance to get into the log. Only repeat your callsign if it needs correction, and then let us know it is a correction. Our propagation windows and time on the island are limited, and we need to maximize the opportunity for everyone. SPEED and EFFICIENCY ARE OF UTMOST IMPORTANCE!

9. LISTEN to the DX station come back to someone. IF THERE IS NOTHING CLOSE TO OR RESEMBLING YOUR CALLSIGN..... SHUT UP! SHUT UP!!!! This needless interference slows things up, and lessens YOUR chance of getting into the log! We are focused on the callsign we heard and do not hear you, only your QRM.

10. Take some time to listen to the next DXpedition working North America, and listen to the rate and rhythm of the operator. It is fast, quick and efficient, and more people get into the log! Then listen to him work Europe. The wise operator will catch on quickly to what it takes to get into the log!

11. SPREAD OUT! Our highest rates (for any continent) were working the center and far edges of the pileup, where there was less QRM. Weak stations were much easier to work than loud stations in the middle of the pileup. If we say, "Listening 200 to 210," 70% of the pileup sits exactly on 200 in an unintelligible din, 25% of the pileup sits on 210 and is almost as bad. 5% of the pileup will be spread out somewhere between 201 and 209, making them very quickly put into the log. S P R E A D O U T ! ! ! Dare to be different! Dare to be heard!

12. LOUD is NOT better! MORE AUDIO/ COMPRESSION is NOT better! Finding the spot to be HEARD is the MOST important thing you can do to get into the log. My biggest thrill (and I'm sure on both ends) is finding the lone weak

---

station and getting him into the log, quickly.

13. LISTEN to the DX operator's INSTRUCTIONS! As we would constantly tune our VFO, if we find a clear spot, we would often say, "33" (meaning for YOU to transmit on 14.033, 28.433, etc). A few would listen, and get into the log very quickly. You cannot hear these hints if you keep calling calling calling ..... Many times, I would say, "listening 200 to 210," and after a while, would say, "listening 240 to 250." Often 30 to 45 minutes, even and HOUR later, I would find MANY still calling on the original "200 to 210" ..... of course, they would never show up in our log, as I was not listening there. LISTEN, LISTEN, LISTEN and LISTEN SOME MORE. The less you transmit, the better chance you have of get-ting into the log. You must know where I am listening, if you really want to get into the log.

14. LISTEN to the "good" guys who make it into the log. Study how they do it! It is not easy to find the "good" guys, as they are quick and efficient and are in the log and gone, long before anyone can find them. They don't transmit much. They are listening.

15. LISTEN to the "bad" guys. It won't take you long to find them. They keep calling and calling. They aren't listening to find out where to transmit, or they wouldn't be calling. How simple is that? Being LOUD helps, but not if the DX is not hearing you!

If you don't want to get into the DX log, just ignore the above suggestions, and keep calling, calling, calling..... I wish you the best of luck. You'll need it.

— · — · —

## Learning Code Part 1

We came across the following article in a Radio News magazine from 1933. The content is just as pertinent today as it was when it was written 82

years ago. Walter Candler trained Ted McElroy who holds the world record for copying 75.2 wpm for 5 minutes. This is the first of two parts. Part 2 will appear next month.

### SOME IMPORTANT HINTS IN LEARNING THE CODE

By Walter H. Candler

It is important that the beginner setting up to learn the code start in the right way and the author points out several important things that should be learned in order to eliminate the possibility of starting with bad habits OBVIOUSLY the ambition of every radio operator is the ability to copy three to six words behind the transmission, easily and accurately, with either pen or "mill." It is equally obvious that such a worthy ambition may be realized if one goes about it the right way.

The ability to copy behind is neither a trick nor a gift. No one ever became a skilled telegraph operator in a "hit-or-miss way, any more than has any one ever become a skilled musician, surgeon, typist, tennis player, or in fact, anything that requires skill. I have heard much of "gifted" operators, but of the thousands whom I have trained and with whom I have come in personal contact, I have yet to encounter one who was actually "gifted," who became a skilled radio operator without a methodical system of training.

During the past twenty years I have been closely associated with and have trained champions and near -champions, including Theodore McElroy, whose official speed was 56/ words per minute for 5 minutes, who could easily copy plain language from 4 to 10 words behind at speeds so fast that other operators, standing by, were unable to read.

Have you ever witnessed a game of golf between professionals?

Or a game of tennis. Have you had occasion to see, for instance, Bobby Jones at a tense moment of a game when all depended on a perfect putt,

---

and nonchalantly approach his seemingly impossible task, chewing gum, while the great throngs of people crowded about him held their breath?

Before trying to define skill, let us be certain that we understand what it is not. Skill is not an accident. And skill is not a "gift." No human ever was born with skill to perform any task whatsoever. Whatever they have accomplished twenty years after their entrance to human society is due to their training in these particular accomplishments.

Skill, then, is the result of properly directed training. Whether it is a typist whose flying fingers never strike the wrong key while her trained eye is following the copy, or a surgeon whose trained hand guides the sharp knife unerringly through a myriad of infinitesimal veins and nerves near the heart or brain, or a radio operator copying fast stuff 3 to 6 words behind, accurately and without that tense nervous and mental strain so common with the unskilled. If you learn to do a particular task correctly at the beginning, and continue doing it -over and over -without deviation, eventually you can accomplish it without having to "think" about it, consciously. You perform it semi-automatically. Your sub-conscious mind does it without the persistent direction of the conscious mind. If you make a false start, pursue wrong methods, or undertake to teach yourself without the infallible guide of experience, you will become confused and uncertain and soon you will be wandering around in a circle like a traveler who has lost his way in a strange forest. The chief characteristics of bad sending are lack of consistency in "timing," "spacing," "character-formation," and poor "speed."

Here is a very necessary thing to know about the dits and dahs of which Continental -Morse code consists. A dit is short-as short as you possibly can make it, whether sending 2 words per minute or 50 words per minute. It always

is made the same way. There is no other way to make it. There are no slow and fast dits any more than there are long, short and medium dahs. A dah is exactly three times longer than a dit, regardless of speed.

Practice is important, but practice along the right lines is still more important. Examine the dit characters- e,i,s,h,5., and the dah characters- t,m,o,O. They will serve to illustrate our fundamental principle. When transmitting the word "his" at, say, 10 wpm., you make the four dits of the "h" as fast as you can, without cramping your arm or squeezing the key, uniformly, thus (...) then you allow the space of four dahs to intervene before making the "i" thus (..) and the space of four dahs before making the "s" thus (...). When you start out to send 10 wpm speed, maintain that speed. Be consistent. If you allow the space of two dahs between two letters, three dahs between two more and four or five between two more, your speed is inconsistent and hard to copy. Bear in mind always that your sending speed is increased and decreased by the length of your spaces, not by the speed of your individual signals. Beyond that speed you can soon learn to regulate your own spacing uniformly if you have patiently come up from the 5 to 8 wpm rate uniformly and developed your "timing sense" which is as necessary to code transmission as it is to music. You must practice until you can time your signals automatically- without having to "think" about it.

## **A Blast from the Past Remember This?**

REGINA HAMS STAY ON THE BALL - FUN IN  
THE SUN TURNS SOUR  
By David Dunster, VE5DGD

Members of the Regina Amateur Radio Association and the Regina EMO communications team assisted the Saskatchewan Roughrider Football Club during their opening season game

---

at Taylor Field in Regina on June 29, 1994. But they got a little more than they had bargained for in a true test of emergency preparedness and came through with flying colours.

Under the direction of VE5DGD, 15 amateurs provided a communications link for security personnel and the St. John First Aid stations. Those involved in this initial trial run were: VE5AAA Clay Doty, VE5CON Con Berger, VE5CPU Bart Richie, VE5DGD David Dunster, VE5FAR Floyd Rousell, VE5HP Len Bisewski, VE5IC Bill Baynes, VE5JWP John Patterson, VE5KZ Jerome Kuntz, VE5MAB Alex Taylor, VE5OI Alex Beaton, VE5RC Bruce Rattray, VE5SHK Jim Goldie, VE5UK Brian Babish and VE5WWW Walter Lloyd.

The plan was to use low power on 146.52 MHz simplex to conserve battery power during the expected three-hour event. A test performed the day before the exercise indicated that there would be little trouble communicating throughout the stadium during the game.

### **THE BRIEFING**

The communications group met for its briefing at 18:00 hours. Key positions were marked on a map to indicate the locations of all amateurs. All entrance gates, first aid stations, key field locations and the press box were covered. VE5DGD and VE5AAA were positioned as rovers on the east and west sides of the stadium. All communicators were told that they were to provide a reliable link for security personnel and St. John First Aid personnel. During this briefing, members discussed several scenarios and I jokingly made mention of how I would like to see a tornado with my own eyes. Others indicated that this was probably not something that I would like to see. Net Control was assigned to me, VE5DGD. The meeting was completed at 18:30 hours and all amateurs proceeded to their assigned locations.

### **FIRST AID ASSISTANCE**

During the first quarter of the game, VE5WWW

required first aid for a severe asthma attack and called VE5MAB for assistance. Within seconds, St. John First Aid was on location. Soon, VE5WWW was again the centre of attention when a dispute broke out between rival fans. After calling for additional security, the matter was dealt with quickly.

As an employee of the Roughrider Football Club, I was called upon to resolve problems with a computer system and turned Net Control over to VE5AAA. During this time, an unexpected weather condition was hastily racing toward Regina from the west.

The third quarter became a whole new playing field. Moose Jaw is about 70 km west of Regina and had experienced a strong weather front packing winds of up to 135 km/h. Intense lightning and rain with funnel clouds had swept through the western half of Saskatchewan and was bearing down on Regina.

Weather conditions were favourable towards thunderstorm development but had subsided just before game time. The temperature was about 26 °C with about 88% humidity, partly cloudy, and the winds were light.

While I was in the press box, there were calls from Moose Jaw to say that conditions there were very unfavourable. The storm had caused damage but did not result in a tornado. Now the storm had set its sights on Regina. With the computer system in the press box now back online, I returned to my duties as Net Control. As I reached field level, I noticed the storm was moving rapidly towards Regina with very intense lightning. In a matter of only 15-20 minutes, the vicious storm hit Taylor Field.

### **THE STORM ARRIVES**

Spectators on the east side of the stadium could easily see what was coming and began to leave the stands for cover below. There were 26,800 spectators at Taylor Field that night and the majority of them had already taken refuge under

the stands when the wind and rain arrived. Winds up to 105 km/h hit the stadium and heavy rain caused termination of the game. Billboards, paper cups and spectators' hats were whipped wildly through the air. Lightning was intense followed by a power blackout.

Emergency lights kicked in on the west side of the field but there were problems on the east side. A standby generator refused to work but after 15 minutes, the generator started and the east side had emergency lighting.

The spectators were wise to move for cover before the winds hit. Had they been in the stands at the time the storm slammed into Taylor Field, there would certainly have been injuries.

I have never seen a storm of this intensity. Winds were so strong that billboard signs were tossed into the wire fencing. The lightning was so intense that it gave a strobe effect to moving objects. The thunder was so loud that radios had to be held close to hear. Rain seemed to be flying through the air rather than falling. It was cold, wet, dark, and scary at times.

### **COMMUNICATORS GO TO WORK**

The amateur radio communicators suddenly had more than just a communications link to deal with. Kids had lost their parents, parents had lost their kids, and spectators wanted to know what was happening and what to do.

Lost children were taken immediately to the ticket office. Using the VE5RRG repeater and with help from VE5ZG, Wascana Rehabilitation Centre was notified that the handicapped people were safe. Security kept in touch with their management staff using their network as well as ours. City workers at Taylor Field had direct contact with city operation via our network and VE5CPU in the city operations room in the press box. The storm front lasted for 20-30 minutes before the wind, rain, and lightning subsided but it seemed like much longer than that.

### **SATISFACTION**

Considering the conditions, the outcome was one

of relief and satisfaction. As radio communicators, we were able to establish a reliable link between both sides of the stadium. Careful planning meant each side knew what was wrong and what had to be done.

What started as fun in the sun did turn sour but had it not been for the EMO communications team, it could have been much more serious. Thank you all, and thanks to those monitoring the VE5RRG repeater during the adverse weather conditions.

Oh yes... the game! The Roughriders won, even though it was cut three minutes short due to a slightly wet and dark playing field!

From the pages of The Canadian Amateur Magazine Oct. 1994

Thanks to Neil VA5SCA for spotting this.

## **Help the GUYWIRE**

The editor and publisher are looking for your input.

1. What would you like to have as a regular topic?
2. Would you like to have the minutes of the previous General Meeting?
3. Would you like Question and answer section?
4. Do you think a technical article each issue would be of interest?
5. Would you be willing to provide a brief write-up of your station/shack with photos?

Contact the editor or publisher at:  
ve5rara@gmail.com

**PLEASE HELP US OUT BY PROVIDING  
SOME GUIDANCE**