

# W7TCK News

## Capital City Amateur Radio Club

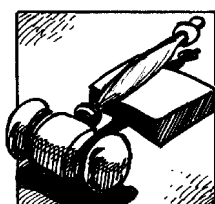
### Helena, MT

John McDougall K7JM – Editor

October 2005

### From The Pres...

Another short, quickly pounded-out article from me this month.



Primarily since I haven't come up with anything new to say or expound on.

There are a few things I would like to mention though:

The first is just a reminder which I like to mention each year as it turns from summer to fall and winter. Now is a great time to look over all of your ham radio gear which will be exposed to the elements and ensure that it is well sealed and in good shape. This includes both base station and mobile gear. I know from experience that fixing a bad cable or antenna when it's sub-zero out is no fun at all. I've also found that in a lot of cases the cause of the failure was typically something which would have been easy to spot and fix earlier in the year, such as deteriorating coax weatherproofing or a loose mount.

.(Cont. P.2 PRES)

## OCTOBER MEETING

Monday

## OCTOBER 3

Salvation Army Church

1905 Henderson

7:00 pm.



### In This Issue

From The Pres.....	1
OCTOBER MEETING.....	1
Board of Directors.....	1
Upcoming Events.....	1
ARES Notes.....	2
From The Editor.....	3
48th Jamboree on the Air - 15-16	
October 2005 .....	4
Morse Code Practice Oscillator..	5

### Board of Directors

- Pres: Forrest Christian, AC7DE
- Vice Pres: John Curry, K7EBL
- Sec.: Rich Weddle, N7GC
- Tres.: Dan Stinson, KC7KKH
- Newsletter Editor: John McDougall K7JM
- Training: John Geach, KS7R
- Technical: Don Heide, W7MRI
- Volunteer Exam Team Leader: John Geach, KS7R

### Upcoming Events

Some dates to remember:

Hamfests

- Oct. 15 Gallatin Valley Hamfest -- Bozeman, MT
  - Oct. 22 Swaptoberfest -- Rickreall, OR
  - Oct. 29 Mt. Baker Hamfest -- Lynden, WA
- Special Events for Lewis & Clark in Idaho
- Oct 1st and 2nd from Canoe Camp W7S all bands
  - Oct 11th and 12th from Clarkston, ID W7C all bands.

For more information,  
cavalryjoe@hotmail.com

**(Cont from P.1 PRES)**

The next is that the October club meeting will be similar to last month's. That is, a fairly short meeting since there isn't a lot to cover. We will be discussing some things related to elections and other end-of-the year items. After the meeting I will have the remaining DF circuit kits and antenna kits for sale. If anyone needs help assembling the kits, I will also be bringing the tools needed to assemble, troubleshoot, and test the kits. Last meeting most people just needed some guidance as to assembly. I plan on being flexible as to what is done in relation to the DF kits based on what assistance people need to get their DF kits working.

Third, is a short reminder that the Ham of the Year committee members are accepting recommendations for the Ham of the Year. If you have someone who you think is deserving of the Ham of the Year award, please contact Rich, N7GC (formerly known as KC7VVZ) or Dave, WA7YFF. There's also a third member of the committee but there was some confusion over who was the ham of the year three years ago. We'll try to clear this up at the next meeting.

I think that's all the items I have for right now. I've probably forgotten something, but if I have, it will hopefully wait for next month.

73's  
Forrest  
AC7DE

**ARES Notes...**

The State of Montana realized the importance of Amateur Radio. The following is a reprint of the Mutual Aid and Common Frequencies document by the State.



**Part VII Amateur Radio**

Amateur radio has a long and distinguished history of volunteer service to public safety. From yesteryear's spark gap transmitters through today's satellites, hams have been on the cutting edge of technology. Montana amateur radio operators can provide invaluable service to the state's public safety agencies and are eligible to use mutual aid and common frequencies while formally doing so. In addition, their own special voice, data, and video communications abilities can add tremendous depth and breadth to incident response.

**The Amateur's Authority**

Amateur operators are individually licensed by the FCC under authority of 47 CFR, Part 97. Public safety communications is one of the primary reasons for the amateur radio service. Several classes of license exist, ranging from Novice to Extra, but this is less important to public safety officials than it is to those who organize hams for emergency service.

Two official organizations are most likely to be of use: Radio Amateur Civil Emergency Service (RACES), which is recognized in FCC rules, and Amateur Radio Emergency Service (ARES), which is a well regulated branch of the national amateur radio league. State and local coordinators are available to help explain their groups' capabilities; DES officials can generally direct interested parties to the responsible individuals.

**The Amateur's Role**

Several likely roles are open to amateur operators in emergency response. ARES and RACES groups can provide supplemental local area, point-to-point, and long distance communications. They have been incorporated into state and local disaster communications plans, but may also be of assistance during lesser emergencies. While not an exhaustive list, the potential functions below are offered along with where they may fall in an Incident Command System (ICS) structure:

**Field or Weather Observer - Situation Unit, Planning Section**

Observers are used to feed incident information to the command post for planning purposes. Though generally given specific and narrow responsibilities as an incident progresses, observers may be pre-designated or organized during emergency preparedness planning. In the latter role they may provide the initial information which gives managers a clear picture of the incident's scope. Large-scale emergencies and disasters often disrupt normal lines of communications, further complicating situation assessment,

Information from observers may be channeled into the incident response in several ways. Reports from observers may be made directly to the Incident Communications Center (ICC) and relayed from there to the ultimate receiver. A more direct route may be preferable, though, particularly if the ICC is heavily involved with command or tactical traffic as it usually is early in an incident.

Alternately, amateurs may report to network control station @NCS - another ham) outside the command post which then relays reports to the Situation Unit. The network control station would be ideally located at the command post for most direct information flow, but the physical site may not be ideal for communicating with wide-ranging resources.

However they are channeled, observer communications will most likely be done via voice. Preplanning should give priority to mobile, lightly equipped resources In most cases.

### Network Control Station

The NCS is an amateur radio construct and has no direct analogue under the Incident Command System. For hams, the net control station maintains communications discipline and acts as the hub for a number of stations/operators. In the hierarchical structure of ICS, a "net" hub is either the Incident Communications Center, located at the Command Post, or simply the supervisory end of any communications path. For example, the NCS may be a radio operator assigned to the Situation Unit Leader in the Planning Section who is directly receiving observer reports from along a flooding river.

Hams are well advised to remember that network control stations are not commonly recognized in routine public safety communications so the term may be meaningless to professionals in the field. With a firm understanding of ICS, amateur radio operators can effectively conduct a traditional net while recognizing it may have a different control station name or expanded functional responsibilities under ICS.

### Incident Dispatcher — Communications Unit, Logistics Section

One or more incident dispatchers *staff* the Incident Communications Center (ICC) and are typically activated early in an incident. The term "dispatcher" does not adequately describe all the communications functions of this position which include passing messages internal and external to the incident and maintaining logs of certain occurrences.

Amateur operators may serve as incident dispatchers in several ways. Appropriately trained, they may serve in a general capacity using regular public safety communications facilities. They may serve as the de facto network control station for other amateurs passing operational, planning, or logistics traffic. Or they may be the packet (data radio) operator for an equally wide variety of communications types.

An incident dispatcher may be the initiator or recipient of "health and welfare traffic", a traditional amateur radio role in times of disaster. A dispatcher may logically be the point of contact between the outside world and the incident for information about victims and near-victims. Many modes of communications are used to carry such traffic and hams diligently exercise their National Traffic System on a day-to-day basis. They take special precautions to assure the original message is delivered verbatim.

### Communications Assistant - Communications Unit, Logistics Section

A person in this position provides assistance away from the ICC, typically at one of the other ICS fixed facilities: base camp, a helicopter base or landing spot, or spike camp. In a disaster, spike camps may be organized at triage sites, victim shelters, or aid stations, for example. The communications assistant is effectively the Communication Unit's "field staff", coordinating with camp managers to see their needs are met.

Similarly, assistants may be assigned to the incident commander, his general *staff*, or command staff (such as section chiefs, information officer, safety officer, and liaison officer). In this instance, the communications assistant serves much as does a radio-telephone operator in the military: a personal and technical resource to persons with heavy communications needs. This is an ideal function for properly trained hams.

### Communications Technician - Communications Unit, Logistics Section

Even during small incidents, the need for communications technicians becomes readily apparent. Qualified persons are needed for setting up the Incident Communications Center, bringing telephone access to the Command Post, installing remote radio facilities, and testing equipment prior to fielding it. Amateur radio operators may be a valuable resource in this area. Often professional technicians are licensed amateurs whose vocation and avocations are inseparable and who may be invaluable in making an incident communications system work.

All told, hams offer a tremendous range of skills and capabilities - ones which make them valued members of an incident response. With appropriate training in ICS and public safety communications as it is practiced in a jurisdiction, amateur radio operators have a great deal to offer.

## From The Editor

It is now October. Have you taken a drive lately? Fall is definitely here and the beautiful trees and shrubs show it. Since you are now reading page 3 of this newsletter, you have

probably read Forrest's presidents column. In it he talks about checking our outside stuff to see if it is ready for the soon coming winter. I am doing the same thing for my job. As many of you know, I have recently acquired a job as an electronics technician with the Montana Department of Transportation. I am traveling the state over getting outdoor sites ready for winter. I see the beauty of this season, and I know the importance of getting our stuff ready for Winter. I plan on bring APRS along with me on some of my travels so look for K7JM-15 on your APRS screen trucking around the state.

The next couple of meetings are very strategic for the Capital City Amateur Radio Club. We are in that season of nominating and electing officers for the next year. Forrest has valiantly led our club through the last few years. We have done a lot of projects and have been involved in many events. Thanks for leading us Forrest. We appreciate the time you have given us. Now, as with any administration change, there will be changes. Let us all support the person that will take the reigns next and continue to make this the great club that it is.



Mark October 15 down. It is the annual Bozeman Hamfest. I plan on making it this year and I hope to see you there too. It is a fun one day event. That same weekend is JOTA. If you are not driving over to the hamfest, why not get on the air and talk to some scouts? In the mean time, I hope to see you at the meeting on Monday.

God bless to you all,

73,

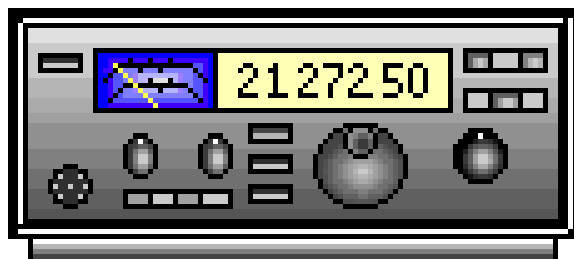
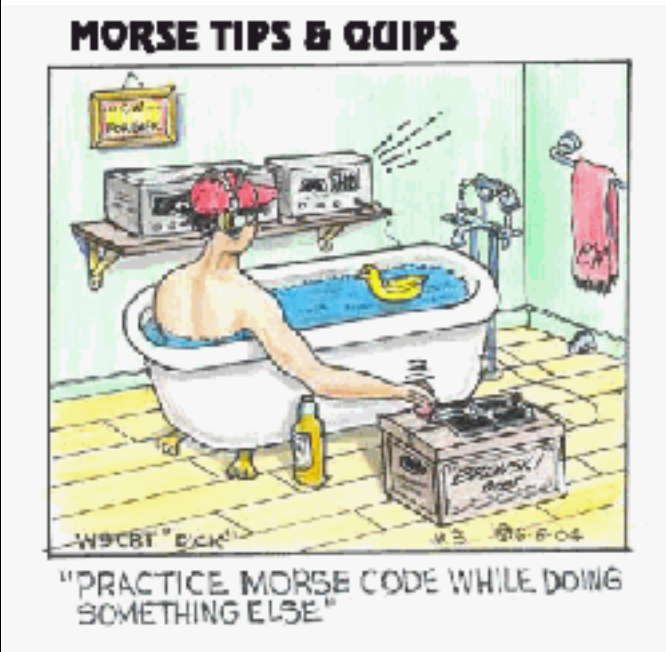
John K7JM – Editor



CCARC's new Mobile Communications Unit

### 48th Jamboree on the Air - 15-16 October 2005

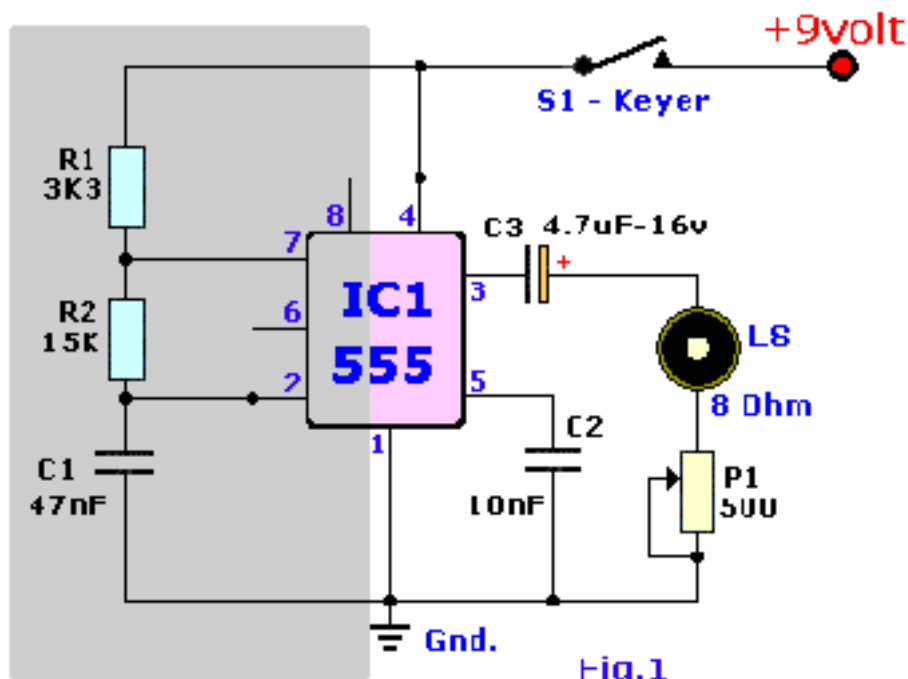
JOTA is an annual event in which about 500,000 Scouts and Guides all over the world make contact with each other by means of amateur radio. It is a real Jamboree during which Scouting experiences are exchanged and ideas are shared, thus contributing to the world brotherhood of Scouting. The JOTA is a world-wide event. Units may operate for 48 hours or any part thereof, from Saturday 00.00 h until Sunday 24.00 h local time. It is for members of the World Organization of the Scout Movement (WOSM), and also for members of the World Association of Girl Guides and Girl Scouts (WAGGGS).



# Morse Code Practice Oscillator

by Tony van Roon

Here is a very simple code practice oscillator that will work great while you improve your code skills. Try it! CW IS FUN!



<http://www.uoguelph.ca/~artoon>

Fig.1

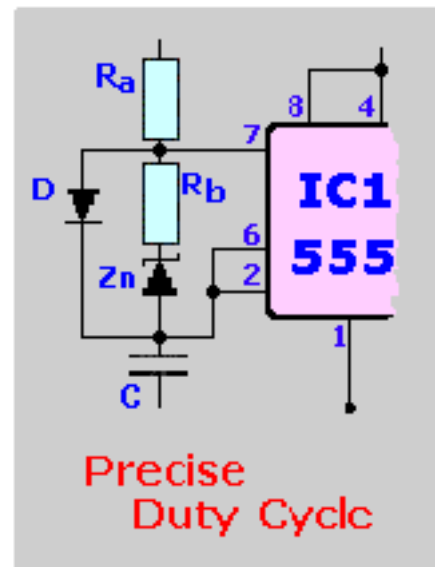


Fig.2

by Tony van Roon

## Parts List

- R1 = 3K3
- R2 = 15K
- P1 = 500 ohm
- C1 = 0.047uF (47nF)
- C2 = 0.01uF (10nF)
- C3 = 4.7uF/16v
- IC1 = 555 Timer IC
- S1 = Morse Keyer

## Additional Notes

The speaker (LS) can be any 8-ohm type up to 2-watts. C1 and C2 are ceramic capacitors. C3 is an electrolytic type.

IC1 is a CMOS MC1455P or equivalent. The cmos type consumes a lot less current when used with the 9-volt battery, but if you don't want to spent the money then the LM555, NE555, etc. are fine too and are pin-for-pin compatible with each other. And obviously, S1 is your Morse-keyer. To get a

more precise duty-cycle replace the components within the shaded gray area from Fig. 1 with the ones in Fig. 2. The diode can be 1N4148 or equivalent. The zener diode is between 5.2 and 5.8 volt. Ra and Rb are experimental to suit your personal taste. C is about the same.



The W7TCK Newsletter is published by the  
Capital City Amateur Radio Club.

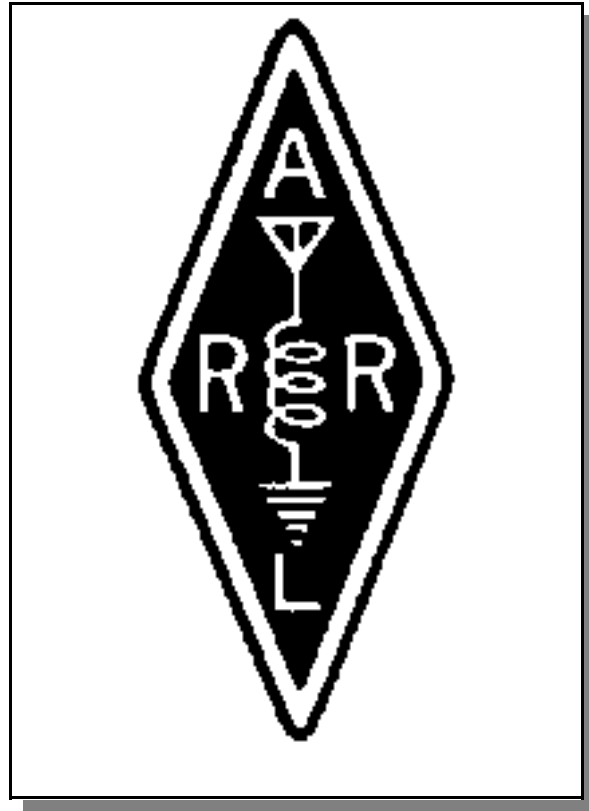
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CCARC Regular meetings are at 7:00 pm on the  
first non-holiday Monday of each month at the  
Salvation Army Church 1905 Henderson.

VE exams are offered monthly, just prior to the regular  
CCARC meeting, but on an appointment only basis. If  
no appointments are made, VE exams will not be  
scheduled for that month. Those wishing to take an  
exam should contact John Geach, KS7R, 442-7107 at  
least two days prior to the CCARC meeting to schedule  
an exam.

W7MRI Repeater: 147.82 (-offset)  
**Net every Tuesday at 7:30 pm local time on the  
147.82 (-offset) repeater.**



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All expressions of opinions and all statements of  
supposed facts are published on the authority of  
the author and are not to be regarded as  
expressing the view of CCARC.

### Biscuits and Gravy

**Come to Hardee's on Saturday. Every Saturday  
morning between 9:30 and 11:00, as many as  
twenty hams show up for "EYEBALL" QSOs.**

**COME JOIN THE FUN!**

**First Class Mail**