

# Introduction to Network Control



CAVERN is a cooperative effort between the **CryptoRights Foundation** (a nonprofit) and the **Cobb Area Council** communications committee.

## Introduction to Network Control

This document demonstrates **How You Can Be "Network Control"** on the CAVERN directed radio network. Basically, it's how to be **"air traffic control"** so we don't miss counting everyone. Having the fewest possible mid-air collisions (signals that block each other at our signal Repeater on the hill) makes CAVERN's radio network useful in emergencies.

**NetCon** makes sure everyone gets heard, as if you were presiding over a meeting using only your voice and protocol — *and no gavel!*

**On this page** is our optional **RS Code matrix**, which helps you tell people quickly how well you can hear them (maybe they can improve their signal, e.g. by standing elsewhere/higher/etc). It's good to know these, but not required.

**The next few pages** are a working draft (version# in footer) of our Radio Check-in **Network Control Script**, customized for the CAVERN network.

**The last page** is a **Roll Call Sheet (RCS)**, included for anyone who wants to try serving as Network Control during future Check-ins. It's quite easy to do — just stick to a script (this one or an improved version) and jot down who you hear, or speak with, on a printout of the last page or any handy notepad.

**If your listing needs updating, send an email to:**

[NetCon @ CAVERN.mobi](mailto:NetCon@CAVERN.mobi)

**Everyone on the Mountain can learn how to be Network Control** in case there's an emergency in their backyard and they need others to help them.

## RS Code Matrix

### Readability & Strength (RS) Codes for Voice Radio Communication

<b>R</b> = Readability ( <i>Information</i> )	<b>S</b> = Strength ( <i>Signal</i> )
<b>1</b> NOT READABLE	<b>1</b> Faint — Barely Perceptible
	<b>2</b> Very Weak
<b>2</b> Barely Readable, occ'l words distinguishable	<b>3</b> Weak
	<b>4</b> Fair
<b>3</b> Readable w/Considerable Difficulty	<b>5</b> Fairly Good
	<b>6</b> Good
<b>4</b> Readable w/Practically No Difficulty	<b>7</b> Moderately Strong
	<b>8</b> Strong
<b>5</b> Perfectly Readable	<b>9</b> Extremely Strong

CAVERN NETWORK CONTROL SCRIPT • WEEKLY RADIO CHECK-IN	ACTION ITEMS & NOTES
<p>[ SAY your GMRS_Callsign TWICE ]</p>	<p><b>MAIN REPEATER CHANNEL:</b> DCS Tone = D071N or "0-7-1-November"</p>
<p><b>This is the Cobb Area Volunteer Emergency Radio Network, also known as "CAVERN"</b></p>	
<p>You are listening to the CAVERN Member Check-In for TODAY...</p>	
<p>[WEEKDAY], the [DAY] of [MONTH],[YEAR] <small>(e.g. Monday, the 32nd of Januvenber, 2020)</small></p>	
<p><b>THE TIME IS NOW: _____ [HOUR] _____ [MIN] (Pacific Time)</b></p>	<p><b>INTRODUCTION</b></p>
<p>CAVERN Radio Check-ins for today will begin AFTER WE TEST the EMERGENCY CHANNEL on the CAVERN-programmed FRS and GMRS radios.</p>	
<p>Visit us on the web at "CAVERN [dot] mobi" for frequency info &amp; more.</p>	
<p><b>OKAY! next... For the next few seconds, please tune to our TEST ALERT TEST on the CAVERN Emergency Alert Channel...</b></p>	<p><b>EMERGENCY ALERT CHANNEL:</b> CTCSS Tone = 103.5 Hertz</p>
<p><b>EVERYBODY... SWITCH to the Emergency Alert Channel... in FIVE SECONDS... 5-4-3-2-1... SWITCH!</b></p>	
<p><b>BEFORE we begin our ALERT TEST...</b></p>	<p><b>ALERT CHANNEL TEST</b></p>
<p><i>Is this frequency needed for any other emergency traffic? If this frequency is already in use, please advise: how much longer?</i></p> <p style="text-align: center;"><b>Please Go Ahead... ???</b></p>	
<p style="text-align: center;">HEARING NOTHING – let's begin the TEST ALERT TEST...</p> <p>This is a <u>Test Transmission</u> using the CAVERN <u>Emergency Alert Channel</u>.</p>	<p>Listen -10 Seconds for other networks...</p> <p style="text-align: center;"><b>START • TEST ALERT TEST</b></p>
<p style="text-align: center;"><b>TEST... TESTING... Alert! TEST-Alert! TEST-Alert! Alert-TEST... TESTING!</b></p>	<p style="text-align: center;"><b>READ THIS VERY ROBOTICALLY SO PEOPLE CAN TELL IT'S JUST A TEST.</b></p>
<p style="text-align: center;"><b>This is a TEST – NOT AN ACTUAL EMERGENCY...</b></p> <p style="text-align: center;">REPEAT: <i>this is NOT an emergency!</i></p> <p><i>You should be hearing this on CAVERN's Emergency Alert Channel programmed into your radio. For more frequency and channel info, see: CAVERN.mobi on the web, or contact Network Control directly by sending email to... "Net Con [at] CAVERN [dot] mobi" (that's "[dot] Mary Oscar Bravo India").</i></p>	
<p style="text-align: center;">[OPTIONAL]</p> <p><i>NEXT, we'll pause to relay the test to the other side of the Mountain... Seigler Relay, prepare to relay "Test Alert Test" on Simplex 15 and confirm, THEN we'll begin our regular check-ins on the non-emergency channel.</i></p>	
<p style="text-align: center;">We will pause now for a few moments... while the Siegler Relay transmits the TEST ALERT TEST to folks on the other side of the mountain, and then confirms the relay to Network Control through the Repeater. This is how we currently connect people who can't reach each other by radio.</p> <p style="text-align: center;">[ COMPLETE the EMERGENCY ALERT RELAY ]</p>	
<p style="text-align: center;"><b>OKAY... the Emergency Alert Channel Test is COMPLETE!</b></p> <p><b>NOW, let's all switch our radios back to the non-emergency channel, for the main check-ins starting in FIVE SECONDS...</b></p> <p style="text-align: center;">5-4-3-2-1...</p>	<p>Wait 30 secs for Primary Relay operator to relay the short TEST ALERT TEST to their neighbors and confirm when done.</p>

**Welcome to the Main CAVERN Check-in!**

**Normal Channel: DCS Tone = D071N**  
*[Stay on this channel for the remainder...]*

My name is: \_\_\_\_\_ [YOUR FIRST NAME]  
 I'm serving as CAVERN Network Control today – and *you can do it too!*  
 My CAVERN ID is: \_\_\_\_\_ [YOUR CAVERN ID] and  
 My GMRS Callsign is \_\_\_\_\_ [YOUR GMRS CALLSIGN].

**The purpose of the Cobb Area Volunteer Emergency Radio Network**  
 is to **organize everyone in our community to be prepared** for adverse events like wildfires or storms, to **practice basic radio communications**, to **get to know other radio operators** and to **maintain our general readiness** for the next emergency coming our way.

**We do a Radio Check-In every Wednesday at 6:30 pm, all year around.**  
**During a Pandemic, we have informal check-ins every weeknight at 6:30pm.**  
**During fire season, GMRS users check in Saturdays at 1:00 PM.**

CAVERN broadcasts on this frequency: **462 [point] 550 megahertz**.  
 That's also the **standard FRS/GMRS Channel Location 15**.  
 On a pre-programmed CAVERN FRS radio, use **Channel Location 8**, or **hear Emergency Alerts Only on Channel Location 9**.  
**Licensed GMRS radio operators** can tune into our alert-only emergency traffic at the **regular 462.550 frequency** with a **CTCSS Tone of 103.5 Hertz**.

**CAVERN IS A DIRECTED NETWORK**, meaning all communication should be directed through **Network Control**, who queues people up to speak. *That's my role today, but you can easily do it too with the script I'm using now.*

Alert net control **that you wish to speak** using a short transmission.  
 For example: "Question", "Comment", "Info" or "Relay".  
 Please **DO NOT begin speaking until** Net Control gives you the go-ahead!  
 Please note: the word "**break**" is reserved for interrupting to announce a **serious emergency**, so **avoid that word** – unless there's big trouble!

**Anyone with an FRS or GMRS radio is welcome to check in**, you do not need a callsign to participate, but if you have a CAVERN ID or a GMRS callsign, please share those when you check in.  
 CAVERN's GMRS-licensed volunteer operators are welcome at any time to use the CAVERN repeater on this frequency with the DCS Tone 071N, that's 0-7-1-November.

**Everyone is reminded to be brief at all times!**  
**Leave space so others may speak** and  
**Listen attentively for low-power radios** that others might not hear (and **relay their messages** to the whole network).

**Before we begin check-ins:** are there any urgent communications that cannot wait until the announcements and discussions we save for the end?

Please say your **FIRST NAME** and your **URGENT MESSAGE** if any...  
 COME NOW...

**OK: Let's begin the Main CAVERN Check-in procedure...!**

**We will now check in CAVERN Group Leaders from Group 1 through 6.**  
 A **Group Leader** is a GMRS User *who's counting everyone in your Group today*.  
**Network Control** calls for the **CAVERN ID of Group Leaders, 1 through 6**.  
 Whoever the Group Leaders are, they say their **CAVERN\_ID and GMRS Callsign**.  
 Once the Group Leaders check themselves in: we'll go **Group-by-Group**, with **Group Leaders checking in their groups on the repeater and radio-to-radio**.

**INSTRUCTIONS / PROCEDURES**

Wait about 10 seconds...  
 If nobody speaks, say:  
**"Hearing nothing, let's proceed..."**

This is a new approach as of script v084.

**Let's Check In Group Leaders & Groups 1 through 6...****CHECK-INS**

**Group 1 is the Boggs Group, which is the Boggs Mountain area, including:**  
 South of Boggs Mountain and East of Highway 175; Gifford Springs;  
 Black Rock and; the Firewise Group at **Jones Creek Crossing**.  
**CAVERN Network Control** calling **Boggs Group Leader**..  
 [Boggs Group Leader replies with CAVERN\_ID & Callsign]  
 Thank you, Boggs Group Leader: please Check In your Group:  
 [Boggs Group Leader calls for check-ins by:  
 "Boggs Group: please check in with your CAVERN ID and FIRST NAME...  
**Listening.."**

A 'Group Leader' should reply with:

"Hi, this is Boggs Group Leader,  
**CAVERN\_ID <Boggs XX>**  
**Callsign <Wxxx123>**"

**Group 2 is the Cobb Group, which is the Cobb Mountain area, including:**  
 Downtown Cobb; the West side of Highway 175 down to Whispering Pines;  
 and South to Socrates Mine Road.  
**CAVERN Network Control** calling **Cobb Group Leader**..  
 [Cobb Group Leader replies with CAVERN\_ID & Callsign]  
 Thank you, Cobb Group Leader: please Check In your Group:  
 [Cobb Group Leader calls for check-ins by:  
 "Cobb Group: please check in with your CAVERN ID and FIRST NAME...  
**Listening.."**

"Thank you \_\_\_\_\_ you are checked in"

**Group 3 is the BottleRock Group, the Bottle Rock Road corridor, including:**  
 High Valley in The Geysers; Glenbrook; and Harrington Flat Road.  
**CAVERN Network Control** calling **BottleRock Group Leader**..  
 [BottleRock Group Leader replies with CAVERN\_ID & Callsign]  
 Thank you, BottleRock Group Leader: please Check In your Group:  
 [BottleRock Group Leader calls for check-ins by:  
 "BottleRock Group: please check in with your CAVERN ID and FIRST NAME...  
**Listening.."**

"Thank you \_\_\_\_\_ you are checked in"

**Group 4 is the Hobergs Group, which is Hobergs Hill including:**  
 Summit; Adams Springs & the Hill Above; and Cobb View Firewise group.  
**CAVERN Network Control** calling **Hobergs Group Leader**..  
 [Hobergs Group Leader replies with CAVERN\_ID & Callsign]  
 Thank you, Hobergs Group Leader: please Check In your Group:  
 [Hobergs Group Leader calls for check-ins by:  
 "Hobergs Group: please check in with your CAVERN ID and FIRST NAME...  
**Listening.."**

"Thank you \_\_\_\_\_ you are checked in"

**Group 5 is the Siegler Group, which is Siegler Mountain including:**  
 Mount Siegler; Loch Lomond; Ridge Road; and Siegler Springs.  
**CAVERN Network Control** calling **Siegler Group Leader**..  
 [Siegler Group Leader replies with CAVERN\_ID & Callsign]  
 Thank you, Siegler Group Leader: please Check In your Group:  
 [Siegler Group Leader calls for check-ins by:  
 "Siegler Group: please check in with your CAVERN ID and FIRST NAME...  
**Listening.."**

"Thank you \_\_\_\_\_ you are checked in"

**Group 6 is the Hannah Group, the areas surrounding Mount Hannah including:**  
 Salminas.  
**CAVERN Network Control** calling **Hannah Group Leader**..  
 [Hannah Group Leader replies with CAVERN\_ID & Callsign]  
 Thank you, Hannah Group Leader: please Check In your Group:  
 [Hannah Group Leader calls for check-ins by:  
 "Hannah Group: please check in with your CAVERN ID and FIRST NAME...  
**Listening.."**

"Thank you \_\_\_\_\_ you are checked in"

**Thank You Group Leaders.**

**This is CAVERN Network Control [Give GMRs Callsign]**

GMRs licensees like Network Control are obliged to repeat their GMRs Callsign every 15 minutes at least while on the air continuously.

Now, we'll call for any late check-ins...

Anyone we missed out there – or in places beyond Cobb... COME NOW!

CAVERN is now calling for any late or missed members from any group, as well as radio visitors from outside the Cobb area in places like Middletown, Kelseyville, Nice, Lower Lake and Beyond... **FIRST NAME** please!

If you were unable to be heard or have questions please email us at:  
Net coN [at] CAVERN [dot] mobi

CATCH-UPS + ANNOUNCEMENTS

Any Last-Minute General Interest Announcements... COME NOW!

Does anyone on the network have any last-minute comments or announcements to share with everybody? Please come with your **FIRST NAME** and **CAVERN\_ID**:

**REMEMBER** – Every Wednesday at 6:30pm all year around, the Cobb community checks everyone in on this frequency to make sure everyone else is OK. During Fire Season, which is [NOW / roughly June through November], we also have a check-in every Saturday afternoon at 1:00pm. We are also meeting informally on the Repeater every weeknight at 6:30pm.

PLEASE keep your CAVERN radio switched on and monitoring – either for alerts only on the emergency channel -- or this channel for all CAVERN traffic including casual daily calls.

IN THE EVENT of an emergency or a siren test please meet here on the radio to exchange information.

SUBSCRIBE to one of our three CAVERN mailing lists at **LISTS.cavern.mobi** that's **L-I-S-T-S [dot] CAVERN [dot] mobi**  
For the latest news in, low-volume, we recommend the Announcements list.

For information on our digital radio mesh network research & development, please visit our new website currently under construction at:  
**VERN.org** ...that's **V-E-R-N [dot] [ohh] [arr] [gee]** .

Are there any closing questions or comments of interest to the network?  
Please say "QUESTION" or "COMMENT" – COME NOW...

REMINDERS

Listen for at least 10 seconds...

Hearing no other traffic,  
I will now proceed to close the network.

Thank you to Everyone who checked in for playing your part in taking us one small step closer to full emergency communications readiness.

From the Tough Little Town of Cobb,  
On the GIANT, green Cobb Mountain,  
Up in beautiful Lake County,  
In the high Northern California wilderness, among the whispering trees...  
I have been your host, and CAVERN's Network Control:  
\_\_\_\_\_ [give your CAVERN\_ID] aka [GMRS\_Callsign].

THIS CONCLUDES the Cobb Area Volunteer Emergency Radio Network check-in for: [WEEKDAY]\_\_\_\_\_ [DAY]\_\_\_\_\_ [MONTH]\_\_\_\_\_ 2020.

The Time is now: \_\_\_\_\_ [HOUR] \_\_\_\_\_ [MIN], Pacific Time

CLOSING...

This Frequency is Now Released to All Radio Traffic.

NETWORK CLOSED !

