BRC PARTICIPANT EMERGENCY REPORTING

Reporting Emergencies in BRC

- Cellular coverage is very limited in Black Rock City. If you do manage to reach 9-1-1 from within the event site, the dispatch center you would eventually reach doesn't manage the available resources on playa. It's far faster to flag down a Ranger or send someone to fetch help at a Ranger Outpost or Emergency Services Department (ESD) Station. That said, there is a way to directly call for help wirelessly since ESD monitors a designated emergency channel. Keep reading for more information.

Didn't we use MURS in the past?

- MURS (Multi User Radio Service) is a service similar to FRS (Family Radio Service, the frequencies that Motorola Talkabouts and similar radios use). MURS is available to use without a license and can operate at a higher power than FRS so it can communicate across the entire playa. In years past, Burning Man's Emergency Services Department would monitor MURS channel 5 as a way for participants to report emergencies. MURS is also being used for many camps and participants to keep in touch with each other. Since there are only 5 channels available with MURS, the desire to dedicate one channel for emergencies limited users to only 4 channels. For the 2022 event, Burning Man has moved to monitoring a new licensed radio channel so that all of the MURS channels are available for general usage. ESD will no longer monitor MURS channel 5.

How do I report an emergency on the radio?

- You can purchase your own radio to contact BRC 911. Large camps or villages might choose to make a radio part of their planning efforts and store it in a public place for emergency use. You might also be able to rent a radio from your local radio rental shop.

- Program your radio to 451.9000 MHz with a PL tone of 91.5 and 12.5 kHz spacing to reach the Black Rock City 911 Dispatch. This is limited to 4-watt power output (typical limit of most handheld radios). Below is a generic programming guide and of course, our wonderful Burning Man community is full of people with a desire to help.

- FOR ALL RADIO USERS: you are responsible for following FCC rules regarding programming. Not all radios meet FCC regulations for this specific frequency. This channel is licensed to Burning Man and you are being granted access to use this channel as an emergency reporting channel only. Unauthorized use could face fines imposed by the FCC.

Questions? Email 911@burningman.org

"BRC 911 Alt" Usage guide

At the 2022 Burning Man event, the Burning Man Project (BMP) will be implementing a new emergency radio channel for participant use. This replaces the previous MURS channel, and will typically require new radios. This document describes the change, details how to use the radios in an emergency, and provides instructions to obtain and program these new radios. *MURS channel 5 will no longer be monitored by Burning Man.*

Licensed Radio Channel

BMP licenses many private radio channels for use on playa. One of those channels will now be available for use by participants to report emergencies; it is called "BRC 911 Alt." This channel will be monitored by the Emergency Services Department (ESD) and replaces the previous monitoring of MURS channel 5. This could require participants to obtain a different radio capable of being programmed with the "BRC 911 Alt" channel. The "BRC 911 Alt" channel is a private channel licensed to the Burning Man Project. Any use other than reporting an emergency, as described here, is not permitted by BMP, and unauthorized use is a violation of FCC rules which could result in fines.

Test Your Radio

We recommend that you test your radio before you need it in an emergency. This channel is only licensed for use on playa and you can test it as follows:

1. Select the "BRC 911 Alt" channel and Listen for a few seconds to see if anyone is currently using the channel.

2. When the channel is clear, make a test transmission:
   a. Press and hold your radio's PTT button.
   b. Pause for two seconds.
   c. Say "Black Rock, Black Rock, <your name> testing 911 Alt."
   d. Release the PTT button.

3. Wait to see if you can hear an acknowledgment of your test call on the radio.
   a. If you do hear an acknowledgment, you're good to go!
   b. If not, wait 15 minutes, then try *one more* test call.
   c. If you don't get a reply to this second test, **don't keep trying**.
      It's possible that your transmission is going out (and potentially interfering with other transmissions), but that you simply can't hear the reply.
   d. Find a Placer, an ARTery contact, or a Black Rock Ranger (or anyone else with an Org radio) and ask them to monitor "BRC 911 Alt" on their Org radio while you make one last test call on your radio.
      ● If they can't hear you on their radio, your radio *transmission* settings might not be correct.
      ● If they can hear you on their radio, but you still can't hear a reply, your radio *reception* settings might not be correct.

Questions? Email 911@burningman.org

BRC PARTICIPANT EMERGENCY REPORTING

Use Your Radio to Summon Help In An Emergency

Limitations:
BMP is providing this method of emergency contact as a courtesy for our participants, but makes no guarantees. Proper programming and maintenance of the radio is an individual responsibility though guidance and assistance maybe found within the Burning Man community such as on the ePlaya forum. Your mileage may vary on the ability to contact ESD given the many different factors such as make and model of radio you have purchased, programming, antenna quality, distance from ESD's tower, etc.

In an emergency, use your radio to summon help as follows:

1. Power on your radio and select the "BRC 911 Alt" channel.

2. Listen for a moment to see if anyone is currently using the channel.

3. If the channel is clear, initiate your emergency call:
   a. Press and hold your radio's Push-To-Talk (PTT) button.
   b. Say "Black Rock, Black Rock, <your name>."
   c. Release the PTT button.

4. When you hear "<your name>, go for Black Rock," press and hold your radio's PTT button and say the following things:
   a. What you need (i.e., ambulance, fire truck, police, etc.)
   b. Where you need it (i.e., at Esplanade and 7:30)
   c. Why you need it (i.e., a participant cut their foot on rebar and is bleeding badly)
   d. Then release the PTT button.

5. Continue to monitor your radio and answer any follow-up questions.

Other Options to Get Help In An Emergency

If you don't have a radio, or if you are unable to obtain help using this radio, you can obtain help by flagging down a Black Rock Ranger, a member of law enforcement, or any other event staff or volunteer with a radio, or send someone to fetch help at a Ranger Outpost or ESD Station.

Questions? Email 911@burningman.org

Appendix A: Selecting a Radio

In order to use the new "BRC 911 Alt" channel, you'll need an appropriate radio. This would need to be a two-way UHF radio that can be configured to use 451.9000 MHz with a PL tone of 91.5 and 12.5 kHz spacing to transmit at no more than 4 Watts.

There are many radios that will work on "BRC 911 Alt" but in order to be compliant with FCC rules your radio should be FCC Part 90 certified for commercial service in the United States. BMP has no intention of making sure your radio is Part 90 certified, but in theory the FCC could.

There are many manufacturers of Part 90 certified UHF radios. The following is a partial list of such manufacturers in alphabetical order, though this is not an endorsement for any of them:

Baofeng (aka Pofung)
Icom
Kenwood
Motorola
Wouxun
Yaesu

Note that these manufacturers make many different radio models; not all are compatible with the "BRC 911 Alt" channel and not all are Part 90 certified.

The ePlaya community (at http://eplaya.burningman.org) will be exploring this topic as it relates to the "BRC 911 Alt" channel.

Questions? Email 911@burningman.org

Appendix B: Using CHIRP to Program a Radio

Though most radios can be programmed using a variety of different methods, one of the most common is to use the free, open-source software tool called CHIRP. This Appendix describes using CHIRP to add the "BRC 911 Alt" channel to a Baofeng UV82C radio, but the steps are very similar for any radio supported by CHIRP.

1. Obtain the CHIRP software.
   CHIRP can be downloaded from http://trac.chirp.danplanet.com/chirp_daily/LATEST/
   CHIRP is easiest to run in Windows, but can run in Mac OS X or Linux with some additional effort.

2. Install the CHIRP software on your computer.

3. Download a sample configuration file. The Burning Man community is a wealth of knowledge and a sample file might be available from someone on the ePlaya forum. (This step is optional; you can also enter the configuration manually, as described below.)

4. Obtain a programming cable for your radio.
   This will probably be a cable made specifically for use with your radio model. It will typically have a USB plug on one end (to connect to your computer) and a proprietary plug on the other (to connect to your radio). Some cables, especially cheap ones, use a counterfeit Prolific PL-2303 USB chip, which can make the cable more difficult to use.
   For a *much* deeper discussion of this topic, see:
   https://chirp.danplanet.com/projects/chirp/wiki/CableGuide

5. Connect the radio to your computer with the programming cable.

6. Download your radio's initial configuration from your radio to your computer.
   a. In CHIRP, select **Radio** from the menu.
   b. Select **Download from Radio**.
   c. In the pop-up window, select the appropriate options:
      Port: This is the serial port to which your radio is connected. If you're not sure which port, you can try each of the available options until one works.
      Vendor: This is the manufacturer of your radio (for example, Baofeng)
      Model: This is the model of your radio (for example, UV82C)
   d. Click **OK**.
   e. Follow the instructions.

7. Starting with your radio's initial configuration, edit the configuration to include the BRC 911 Alt channel:
   a. Open the sample configuration file you downloaded:
      i. In CHIRP, select **File** from the menu.
      ii. Select **Open**.
      iii. Browse to the sample configuration file you downloaded.
   b. Copy the first entry from the sample configuration file:
      i. In CHIRP, click on the first line (line 0).
      ii. Type **<Control-C>**.
      iii. Click the **X** on the sample configuration file tab to close that file.

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    iv.   You should now be back at your radio's initial configuration.

  c.   Decide which "slot" in your radio you want to use for BRC 911 Alt.
(To make it quick to find in an emergency, we recommend you use the first slot.)

  d.   Click on the line for your desired slot.

  e.   Paste the entry from the sample configuration file by typing **<Control-V>**.
You might see a warning pop up asking if you want to overwrite the location you selected; you'll need to choose **Yes**.

  f.   If you'd rather program the slot manually, use these values:
Note: The below fields are for a Baofeng UV82C. Other brands and models might be slightly different.
Frequency: 451.9000
Name: BRC 911 Alt
Tone Mode: Tone (or CTCSS)
Tone: 91.5
ToneSql: <leave blank>
DTCS Code: <leave blank>
DTCS RX Code: <leave blank>
DTCS Pol: <leave blank>
Cross Mode: <leave blank>
Duplex: <leave blank>
Offset: <leave blank>
Mode: NFM (for 12.5 kHz spacing)
Power: High
Skip: <leave blank>

8. Save the new configuration to your computer.
  a.   In CHIRP, select **File** from the menu.
  b.   Select **Save As**.
  c.   Name the file something descriptive, then select where you want to save it.

9. Upload the new configuration to your radio.
  a.   In CHIRP, select **Radio** from the menu.
  b.   Select **Upload to Radio**.
  c.   In the pop-up window, select the appropriate options:
Port: This is the serial port to which your radio is connected. If you're not sure which port, you can try the available options until one works.
Vendor: This is the manufacturer of your radio (for example, Baofeng)
Model: This is the model of your radio (for example, UV82C)
  d.   Click **OK**.
  e.   Follow the instructions.

10. Test your radio (but wait until you're on playa!).
Because BMP's license to use the "BRC 911 Alt" frequency is only for the playa, you can't legally test your configuration until you're on playa.
Once you are on playa, however, you can test the radio as described above in **Test Your Radio**.

Questions? Email 911@burningman.org