

# C. A. P. RADIO FOR COMMO DUMMIES



The E. F. Johnson radios that we use in the aircraft, in the vans, and carry around in our hands are programmed for 256 channels. These are organized into 16 ZONES with 16 CHANNELS each. Fortunately, we don't use all of these. However, there are several channels you should know how (and when) to access.

- Zone 1 Channel 1 Shows as CC1 "Command & Control 1"
- Zone 1 Channel 2 Shows as CC2 "Command & Control 2"

During an actual or practice mission, these channels would be used for radio communication within the Incident Command Staff. When not on a mission, CC1 and CC2 could be used for training.

- Zone 1 Channel 5 Shows as GUARD or CAPGUARD

Field units (air and ground) should begin any actual or practice mission on this channel (unless the Mission Communications Plan directs otherwise). Once initial contact is made between units that are working together, they should agree to move to another channel and leave GUARD free.

Options Include:

- Zone 1 Channel 3 Shows as AIR1 "Aircraft 1"
- Zone 1 Channel 4 Shows as AIR2 "Aircraft 2"
- Zone 1 Channel 6 Shows as TAC1 "Tactical 1"

For long-distance communications, (not line of sight) we need to use a "Repeater". A repeater receives your signal, amplifies it, and sends it back out. Therefore, repeaters are usually located on high ground or on the roof of tall buildings. If necessary, however, we can put a repeater on an airplane and have it orbit above the operation. These "roaming" repeaters are found at:

- Zone 6 Channels 7 or 8 These show as "PC" or "PD"

The fixed repeaters in SD Wing are scattered around the state. Always use the one nearest you. If you have trouble reaching a repeater with your signal, go to higher ground or a higher altitude.

Location	Analog	Designator	Digital	Designator
Spearfish (Terry Peak)	Zone 11 Ch 8	R56	Zone 15 Ch 8	R56P
Rapid City (Legacy)	Zone 6 Ch 9	RAP		
Rapid City	Zone 9 Ch 9	R25	Zone 13 Ch 9	R25P
Custer (Mt. Coolidge)	Zone 11 Ch 10	R58	Zone 15 Ch 10	R58P
White			Zone 12 Ch 16	R16P
Pierre	Zone 11 Ch 9	R57	Zone 15 Ch 9	R57P
Yankton (Turkey Ridge)	Zone 11 Ch 10	R58	Zone 15 Ch 10	R58P
Aberdeen	Zone 11 Ch 8	R56	Zone 15 Ch 8	R56P
Sioux Falls	Zone 9 Ch 9	R25	Zone 13 Ch 9	R25P

## WORKING THE RADIOS

### HAND-HELD

1. Turn the radio on and adjust volume (knob on top of radio)
2. Use the UP-DOWN buttons on the face of the radio to select the correct ZONE.
3. Select the desired CHANNEL using the dial on the top of the radio.
4. Note: Leave the Option Switch (top) on "A" (off).
5. At night, press the middle button on the side of the radio for light.

### MOBILE (Van and Mission Base)

1. Push the ON/OFF knob in and then adjust the volume.
2. To pick a ZONE, push the "Select" knob in until a bar appears over the left-hand number on the screen. Then turn the "Select" knob until you get to the desired Zone.
3. To pick a CHANNEL within the zone, push the "Select" knob in until a bar appears over the right-hand number on the screen. Then turn the knob until you find the desired Channel.
4. Note: Leave the SCAN and RWS (Radio-wide Scan) functions OFF.

## AIRCRAFT (C-172)

The aircraft radio is a Technisonic TDFM 136A. While it operates quite differently than the E.F. Johnson radios, it is programmed with the same key channels. The TDFM does not deal with Zones, so you just need to find the desired channel.

The radio screen displays two lines. The bottom line shows the Guard channels: 1 or 2. The top line shows where you are in the MAIN group of channels.

To scroll through the channels under MAIN, press the left arrow (4) or the right arrow (6) until you find the channel you want. Alternatively, if you know the channel number, you can

1. Press the CHAN button
2. Press the number buttons for the three digit channel number.
3. Press the ENTER button

Here are the channels you are most likely to use:

001	=	CC1	076	=	R16P White Repeater
002	=	CC2	077	=	R25P Rapid City / Sioux Falls
003	=	AIR1	078	=	R56P Terry Peak / Aberdeen
004	=	AIR2	079	=	R57P Pierre
005	=	TAC1	080	=	R58P Mt. Coolidge / Turkey Ridge
042	=	Mutual Aid 1			
043	=	Mutual Aid 2			

In General, aircraft should avoid broadcasting on a repeater channel. Because of its altitude, an aircraft can easily activate repeaters in a broad geographic area.