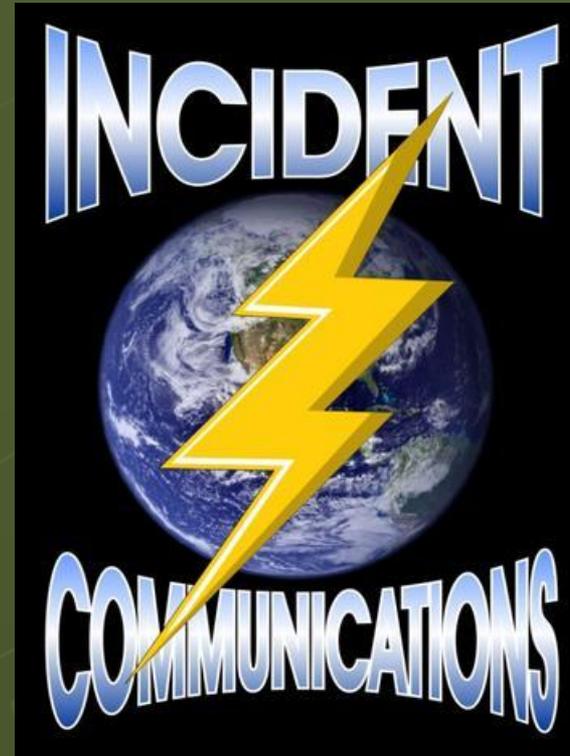


FTC AREA TYPE III INCIDENT MANAGEMENT TEAM



INCIDENT COMMUNICATIONS SET-UP GUIDELINES

Prepared by: Mark S. Nelson: COML

Revision: 2013

FTC Portable Repeater and Phone System Kits are stored in the Garden level Telecom room at the Forest Supervisors office: 2150 Centre Ave, Fort Collins, CO. DISPATCH HAS ACCESS CARD 970-295-6800

FTC IMG SOP's: Appendix D

- ▶ A copy of the Northern Front Range Interagency Radio Communications Plan is provided in Appendix D of the IMG SOP's.
- ▶ All FTC area Resources should have the NFRWFC Board approved Type 3 Communications Plan pre-programmed into one bank of their radios. (*Changes to ICS-205 will occur based on incident location*).
- ▶ Every effort should be made to isolate the incident from other local radio systems as rapidly as possible. The FTC Radio Starter System is to be ordered and is to include Command Repeater, Logistics and Aviation frequency capability.
- ▶ For incident communications purposes, the incident communication center at ICP will be referred to as "*Incident Name ICP*".
- ▶ The LSC will ensure an ICS 205 Radio Communications Plan is completed for the incident. (Use FTC T3 IMG Communications Plan)
- ▶ Locate Medical and Communications Units near each other to facilitate Med-A-Vac operations.

Communications Unit Responsibilities

WITHIN FIRST 12 HOURS:

- ▶ Determine location for Portable Repeater.
- ▶ Obtain, Transport, and Set-Up FTC Portable Command Repeater
- ▶ Implement FTC T3 IMT Communications Plan (ICS-205).
- ▶ Program/Clone Incident resource radios with FTC T3 IMT Communications Plan.
- ▶ Coordinate existing radio frequencies and obtain clear communications among Fire Ground Resources, ICP, and Fort Collins Dispatch Center.

WITHIN FIRST 48 HOURS (Order COMT or COML if complexity warrants):

- ▶ Install and begin operating on basic independent incident radio system.
- ▶ Order/obtain additional communications equipment (TAC Radio Kits, Handheld & Repeater Batteries) and personnel (RADO and/or INCM).
- ▶ Order Air-Air and Air-Ground Frequencies. (return IA frequencies to FTC use).
- ▶ Set-up and begin operation of a functional Communications Unit.
- ▶ Implement Medical Emergency Check List / Accident Communication Procedures.
- ▶ Monitor all incident related radio traffic.
- ▶ Coordinate radio traffic with Fort Collins Dispatch Center, Local County 911 Centers and County Emergency Operations Centers.

FTC TYPE 3 TEAM COMMUNICATIONS PLAN (ICS-205)

**** SAMPLE: See FTC Website or kit notebook for current year plan ****

INCIDENT RADIO COMMUNICATIONS PLAN		1. Incident Name FTC TYPE III TEAM COMM PLAN		2. Date/ Time Prepared		3. Operational Period Date/Time	
4. Basic Radio Channel Utilization Mode: W=Wideband Analog, N=Narrowband Analog, D=Digital, M=Mixed							
Channel	Function	Frequency	Tone	Mode	Assignment	Remarks	
1	TAC 1	RX: 168.6750		N	TAC 1	R2 FIRE TACTICAL	
		TX: 168.6750					
2	TAC 2	RX: 168.7750		N	TAC 2	R2 FIRE TACTICAL 2013 (New 2014 Arap Work Net)	
		TX: 168.7750					
3	TAC 3	RX: 164.1000		N	TAC 3	ARAPAHO WORK NET	
		TX: 164.1000					
4	FTC COMMAND REPEATER	RX: 169.9500		N	INCIDENT REPEATER	R2 SCENE OF ACTION (SOA)	
		TX: 165.2250	107.2				
5	AIR-GROUND	RX: 166.8500		N	AIR-GROUND	NIICD Assigned Interagency Zone Air-Ground AG7. Order new frequency if FTC area Initial Attack creates competition.	
		TX: 166.8500					
6	ROOSEVELT DIRECT	RX: 169.1750		N	FTC DISPATCH CENTER	ROOSEVELT DIRECT	
		TX: 169.1750					
7	ROOSEVELT REPEATER(S)	RX: 169.1750		N	FTC DISPATCH CENTER	SELECT REPEATER(s) AT TIME OF INCIDENT: TX Tones: Deadman: 110.9, Buckhorn: 123.0, Twin Sisters 131.8, Thorodin 136.5, Pawnee 167.9, Pawnee Buttes TBD 2014, Gunbarrel 103.5, Portable 151.4	
		TX: 169.9750	TBD				
8	ARAPAHO DIRECT	RX: 169.8750		N	FTC DISPATCH CENTER	ARAPAHO DIRECT	
		TX: 169.8750					
9	ARAPAHO REPEATER(S)	RX: 169.8750		N	FTC DISPATCH CENTER	SELECT REPEATER(s) AT TIME OF INCIDENT: TX Tones: Squaw: 110.9, Mines: 123.0, S Cottonwood 131.8, Blue Ridge 136.5; Lil Gravel 151.4, Griffith 114.8, Portable 151.4	
		TX: 170.4750	TBD				
10	RMNP FIRE	RX: 169.6750	110.9	N	RMNP FIRE REPEATER	TWIN SISTERS (SOUTH OF ESTES PARK)	
		TX: 164.4250	103.5				
11	VFIRE21	RX: 154.2800		N	MEDICAL EVACUATIONS	MEDICAL EVACUATIONS (Formerly FERN 1)	
		TX: 154.2800	156.7				
12	VFIRE22	RX: 154.2650		N	INTERAGENCY COMMUNICATIONS	BACK-UP INTERAGENCY USE (Formerly FERN 3)	
		TX: 154.2650	156.7				
13	LOGISTICS	RX: 166.5625		N	ICP LOGISTICS	ROOSEVELT WORK NET (BUCKHORN MTN BASE)	
		TX: 166.5625					
14	AIRGUARD	RX: 168.6250		N	EMERGENCIES	AIRGUARD	
		TX: 168.6250					
15	INCIDENT COUNTY 911 CENTER	RX: TBD		TBD	COUNTY 911 DISPATCH CENTER	SELECT APPROPRIATE COUNTY FREQUENCY FROM LIST BELOW.	
		TX: TBD	TBD				
16	LAW ENFORCEMENT/AIRGUARD	RX: 168.6250		N	TBD	LAW ENFORCEMENT: AIRGUARD IF NO NEED FOR LAW CHANNEL	
		TX: 168.6250	110.9				

5. Prepared by: FTC COML GROUP; Approved by NFRWC Board on:

Use Forest Repeater Network if FTC and ICP cannot communicate through the FTC Portable Command Repeater.

FTC T3 IMG Air-Air Frequency: 127.3250. Request additional A/A & A/G frequencies from FTC if Initial Attack activity in the FTC area creates competition.

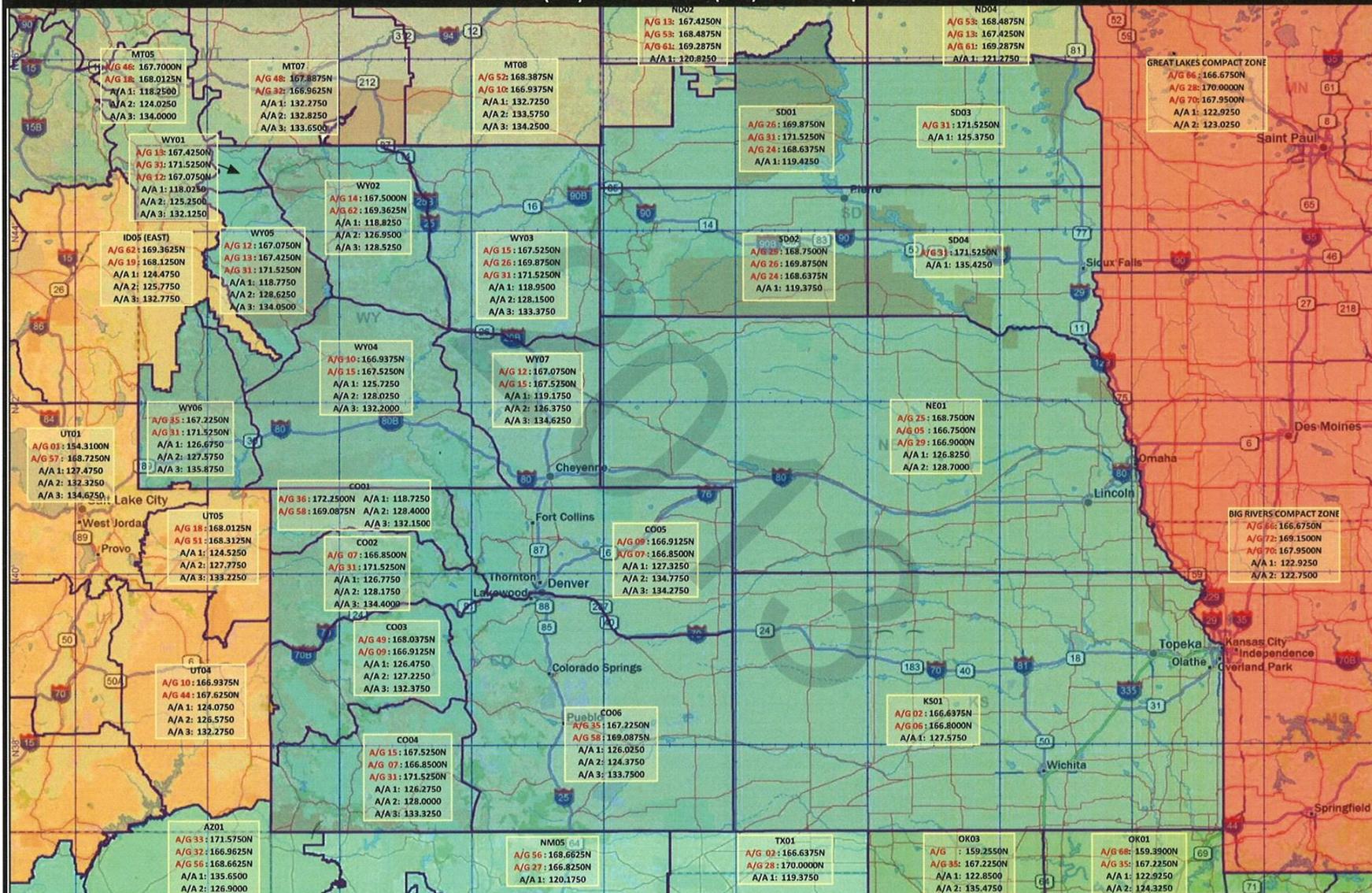
TONES: Program Forest Repeater(s) (refer to repeater coverage maps in reference book) and County 911 Center frequency and tones based on location of incident.

FTC Area County 911 Frequencies (Channel 15): Larimer 154.385 (RX/TX) Tone 156.7 Boulder: 154.3250 (RX/TX) Tone: 179.9 Gilpin: 153.8450 (RX) 156.0150 (TX) Tone: 100.0 Clear Creek: 155.0250 (RX) 155.7450 (TX) Tone: 100.0 Grand: 155.6850(RX) 158.8200 (TX) Tone: 156.7

TBD: To Be Determined at time of incident based on geographic/county location.

**** SAMPLE: See FTC Website or kit documents for current assignments ****

Rocky Mountain Coordination Center Air-to-Ground (FM) and Air-to-Air (AM) Radio Frequencies 2013



For Official Use Only

The data contained in this publication is Sensitive But Unclassified (SBU) and is not releasable under the Freedom of Information Act.

- Towns
- IA Zones Rocky Mountain GACC
- IA Zones Eastern Great Basin GACC
- IA Zones Northern Rockies GACC
- IA Zones Southern Area GACC
- IA Zones Southwest GACC
- IA Zones Eastern Area GACC
- Minor Roads
- River/Water



FTC T3 Radio Starter Kit Contents:

1 Portable Command Repeater (Battery/charge controller included in Orange Box)

1 Antenna System (Mast, Guy Ropes, stakes, Antenna, Coax)

1 Folding Solar Panel (with connector)

1 FTC Communications User Guide

(Medical Emergency Check List / Accident Communication Procedure Documents)

1 FTC IMG ICS-205 Communications Plans

(Should be pre-programmed group in FTC Cooperator radios)

1 Cloning Radio / Cloning Cable

2 Flats of AA Batteries for Handhelds

PORTABLE COMMAND REPEATER SITE SELECTION

- ▶ Planning Tools: Local Personnel, TOPO Software, Google Earth, CloudRF.com (must use "Google Chrome" Browser).
- ▶ Minimum Option: Site must cover fire ground area and ICP.
- ▶ Best Option: Site will cover Fire Ground, ICP, and communicate with Fort Collins Dispatch Center.
- ▶ Use forest repeater network for resource order and emergencies IF ICP cannot talk to Fort Collins Dispatch Center through the Portable Command Repeater.
- ▶ Consider access options and timeline:
Drive, Pack, or Helicopter.

FTC TYPE III COMMAND REPEATER DIAGRAM



RED: Must have link



Yellow: Link to FTC Desirable but not required. Use forest net if needed.



FTC Type III Command Repeater



Fort Collins Dispatch Center

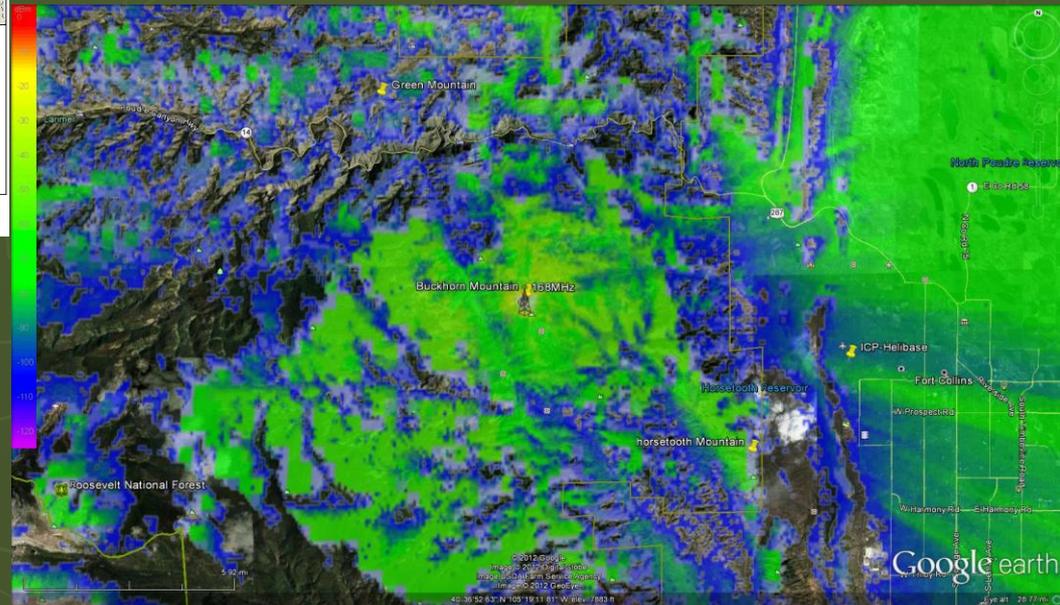
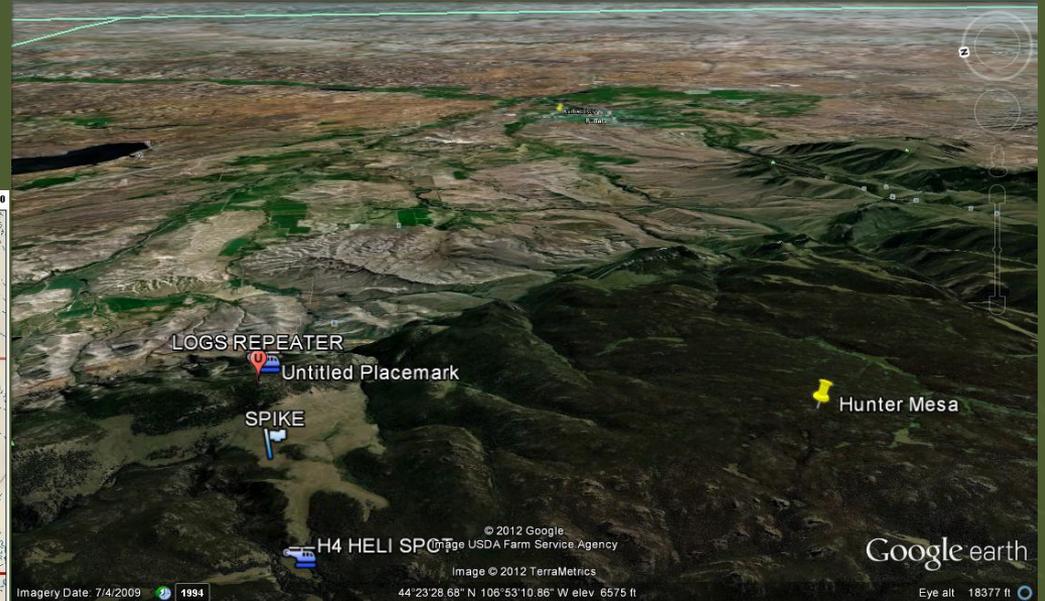
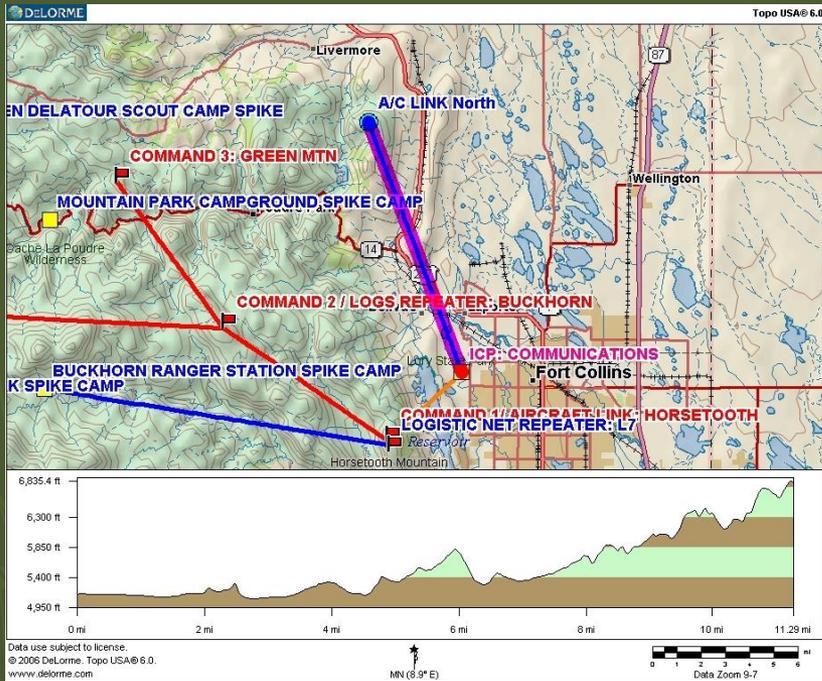


Incident Operations Area



Type III Incident Command Post

REPEATER SITE PLANNING TOOLS: TOPO USA / Google Earth / CloudRF.com



REPEATER SET-UP STEPS

- ▶ 1: Determine repeater location for best coverage.
- ▶ 2: Set-up Antenna system using directions below.
- ▶ 3: Connect antenna coax to repeater case.
- ▶ 4: Connect Solar Panel Assembly to the repeater case.
 - (Secure solar panel with stakes).
- ▶ 5: Turn on Power Switch on repeater case.
- ▶ 6: Test repeater with handheld radio(s).
- ▶ 7: GPS repeater coordinates and document access directions.
- ▶ 8: Advise IC and FTC that Command Repeater is "In Service".
- ▶ 9: Proceed to ICP to Clone Fire Resource radios to ICS-205.
- ▶ 10: Set-up Communications Unit to size and scale needed.



Command Repeater Case: (Also Shown mounted to backpack frame)
Master Power Switch-Right Side .Two connections to Repeater
Box: 1) Antenna Coax 2) Solar Panel cable.

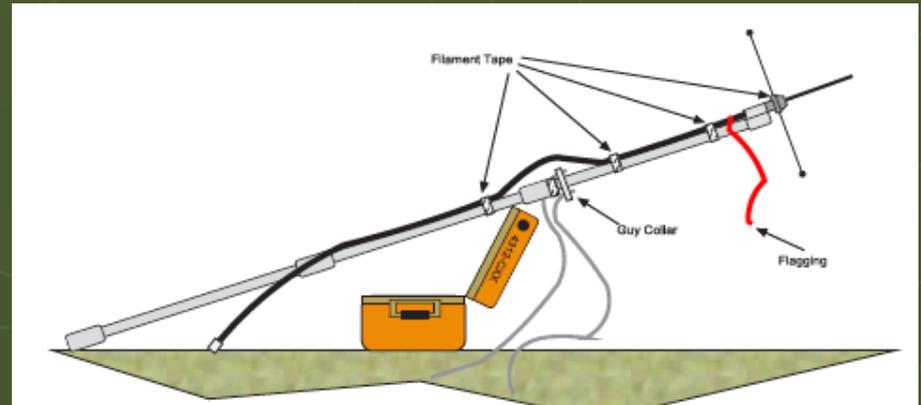


Inside Repeater case. **NO adjustments or settings need to be made.**

The right side module is a battery and charge controller (charged by folding solar panel).
The left side is a Daniels repeater and duplexer.



SOLAR PANEL/CHARGER: Shown deployed and folded for transport



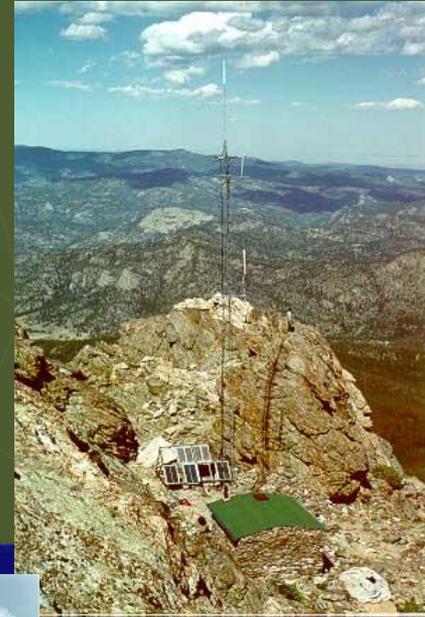
Example of Telescopic pole mast and Guy Rope antenna installation.
See slide for detailed antenna set-up instructions.
Antenna is stored inside of mast.

FTC has a remote base with the Command Repeater Frequency Pair programmed. Attempt should be made to place the repeater to cover the fire area and "See" the dispatch center in Fort Collins so that dispatch can monitor fire traffic and process resource requests. Use the ARF forest radio system if Command Repeater coverage to FTC is not possible.

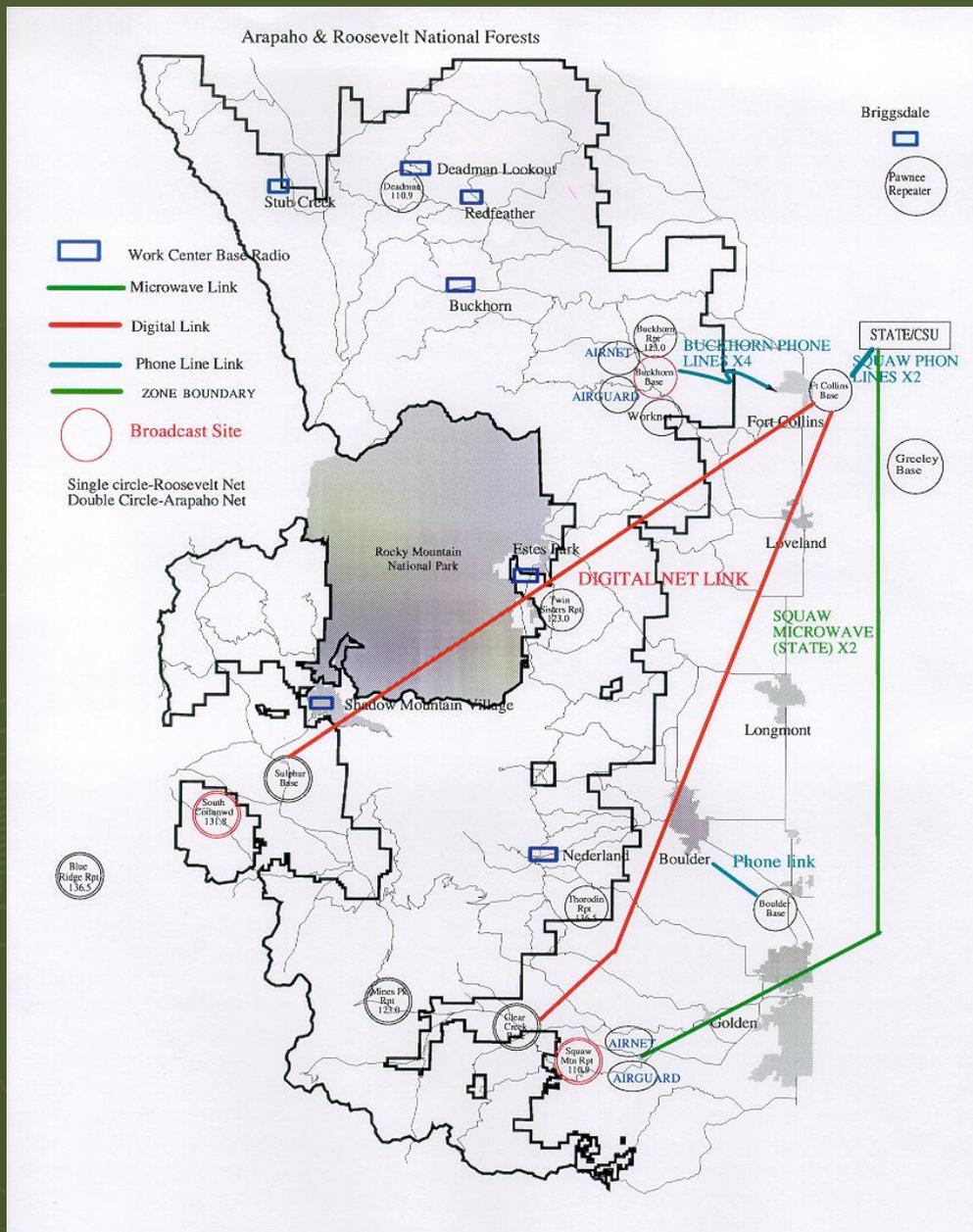


ARAPAHO-ROOSEVELT RADIO NETWORK

Provides FTC Area Backbone Radio Network



ARF RADIO SYSTEM NETWORK DESIGN



New ARF Repeaters 2012
 Little Gravel: SRD
 Gunbarrel: BRD

Proposed Repeaters 2014:
 Griffith: CCRD
 Pawnee NG

HANDHELD RADIO PROGRAMMING/CLONING



NATIONAL INTERAGENCY INCIDENT COMMUNICATIONS DIVISION DPH KING RADIO QUICK PROGRAM GUIDE

- Select a group and channel needed to program.**
Select a group by pressing the "# key followed by a 2-digit group number and press the "ENT" key.
- Program Access**
 - Insert programming plug into radio side connector.
 - Press and hold the master switch on plug.
 - While pressing the master switch, press and hold the "FCN" key for about 3 secs.
 - LCD should display "-- --ID". (Note: NIFC radio password is "000000")
 - Enter the SIX-DIGIT password and press the "ENT" key to enter program mode.
 - If the correct password was entered, the LCD will display "PRG CH 00".

- Programming a Channel (ANALOG ONLY)**
Once in the Program Mode, press a 2-digit channel number to program with the keypad.
 - "PRG CH 01".....Channel 01 Settings is currently selected.
 - "PRG CH 01N".....Press # to toggle between Narrow/Wide Band and press the "FCN" key.
 - "PRG RX 170.47500".....Press "CLR" and enter new RX Frequency and press the "ENT" key.
 - "PRG RX MODE-A".....Change RX Mode with "PRI" key to "A" for Analog and press the "ENT" key.
 - "PRG RX CG 000.0".....Press "CLR" and enter new RX Code Guard and press "ENT" key.
 - "PRG RX IDC^{GM} NAC0659".....RX NAC, DIGITAL ONLY, press the "ENT" key to skip to next field.
 - "PRG RX ID SQL-NRM".....Change "Squelch" with "NRM" and press the "ENT" key.
 - "PRG TX 170.47500".....Press "CLR" and enter new TX Frequency and press the "ENT" key.
 - "PRG TX MODE-A".....Change TX Mode with "PRI" key to "A" for Analog and press the "ENT" key.
 - "PRG TX CG 103.5".....Press "CLR" and enter new TX Code Guard and press the "ENT" key.
 - "PRG TX IDC^{GM} NAC0659".....TX NAC, DIGITAL ONLY, press the "ENT" key to skip to next field.
 - "PRG ID TG00001".....Talk Group ID, DIGITAL ONLY, press the "ENT" key to skip to next field.
 - "PRG CHAN 1".....Channel Label, press "ENT" to bring up the first programming field ("PRG CH 01N).

4. Channel Programming is complete. At this point the user may select another channel to program or exit the program mode by cycling power to the radio.

DPH Version 3.0/October, 2007

DPH SETTINGS & OPTIONS

ADD Channel to Scan List
Select CH with CH knob and press the "ENT" key. "SCN" will appear in upper display.

DELETE Channel from Scan List
Select CH with CH knob and press the "CLR" key. "SCN" will be removed from the upper display.
Note: Scan must be disabled to add/delete CH's from scan list.

ADD PRI Scan Channel
Select CH, Press "PRI" key, PRI will appear in display.
Priority Mode B, C or D must be enabled to change PRI Channel via the keypad.
Note: See DPH Help Files for more information.

Changing Groups
See Step 1 on front page.

HI/LOW Power Selection
Select LO Power by toggling the LO/HI Switch to the up position. (Toward the back of the radio)
Select HI Power by toggling the LO/HI Switch to the down position. (Toward the front of the radio)

TX User Selectable Tones
To Enable Tone, press number on keypad so select.
To Disable Tone, press the number "0" on keypad.

Disable/Enable Keypad
To Disable, press and hold "FCN" key.
To Enable, press and hold "FCN" key.

"P000000".....	Group Password Assignment
"0000000".....	Group ANI/DTMF ID
"120 SEC".....	Transmit Time-Out Timer
"2.0SEC".....	Scan Delay Time
"PR1 OFF".....	Priority 1 Channel Assignment
"PR2 OFF".....	Priority 2 Channel Assignment
Group 1: (NIFC Default is 1-12345)	
Battery Saver Disabled.....	1-12345
Group Scan.....	1-12345
TX ON PRI 1.....	1-12345
Priority Key Lockout.....	1-12345
Scan List Lockout.....	1-12345
Group 2: (NIFC Default is 2-12345)	
User Code Guard Enabled.....	2-12345
Busy Channel Indicator Enabled.....	2-12345
Busy Channel Lockout Enabled.....	2-12345
Busy Channel Lockout/Override.....	2-12345
ANI Enabled.....	2-12345
Manual DTMF Encoder.....	2-12345
Manual DTMF/ANI Encoder.....	2-12345
Group 3: (NIFC Default is 3-12345)	
Reserved.....	3-12345
Reserved.....	3-12345
LCD Backlight ON Display Change.....	3-12345
LCD Backlight ON Key Press.....	3-12345
Alphanumeric Mode Enabled.....	3-12345
"LITE OFF".....	Back Light Duration
"GROUP XX".....	Group Label

Bold= Flashing



NATIONAL INTERAGENCY INCIDENT COMMUNICATIONS DIVISION KING EPH/EPV PORTABLE RADIO CLONING SETTINGS V3.1, 2010



CLONING RADIO SETTINGS (See Figure 5)

- Turn both radios ON.
- Attach the Master end of the cloning cable to the side connector of the Master radio.
- Put the Master radio in programming mode by holding down the Master Switch and pressing the "FCN" key simultaneously on the radio until the LCD displays (-- -- ID). (See Figure 1)
- Enter a valid password, if requested, and press the "ENT" key. (NIFC Default Password is set to "000000")
The LCD will display either "PASS" or "CH 00" depending on the radio, if the correct password was entered. (See Figure 2)
Note: If the EPH radio displays "PASS" press the "ENT" key to proceed to "CH 00" parameters. If the radio does not display "PASS" it can not be used as a Master clone if Narrow-Band frequencies are used, only Flex-Mode Models can clone Narrow-band Frequency List.
- Attach the other end of the cloning cable to the side connector of the radio to be cloned.
- Press the "" key on the Master radio.
The LCD will flash "PROG", indicating that the radio is ready to download. (See Figure 3)
- Press the "FCN" key to download to clone/slave radio.
If the clone was successful, the Master radio will resume flashing "PROG" on the display.
If the clone was not successful, the Master radio will flash "FAIL" followed by continuous beeps. (See Figure 4)
Note: To stop "FAIL" mode, press the "CLR" key, turn off the radios, and start the cloning process again. When the Master radio downloads to a clone, the Scan List and Priority Channel designations are also downloaded to the clone radio.

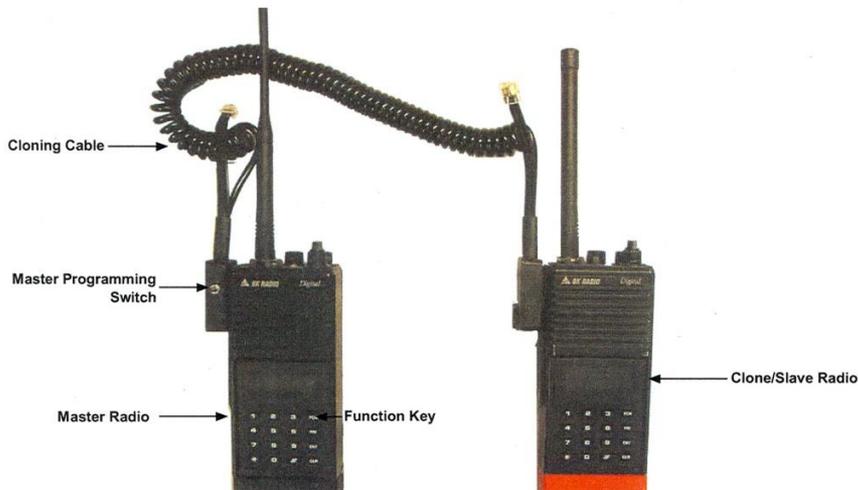


Figure 5

PRG

-- -- ID
Figure 1

PRG

CH 00
Figure 2

PRG

PROG
Figure 3

PRG

FAIL
Figure 4

FTC Type III Team Phone System Kit



Phone System Kit Contents (Box with yellow lid):

- 6 Cordless Phones
- 1 Punch Down Block / Tool
- 1 320' roll of 6 pair phone cable
- 2 180' rolls of 2 pair phone cable with blocks
- 1 100' roll of 2 pair phone cable with blocks
- 1 75' roll of 2 pair phone cable with blocks
- 1 25' roll of 2 pair phone cable with blocks
- 6 phone blocks
- 1 roll of tape and Safety Flagging



INCIDENT RADIO WEB SITES:

<http://www.nifc.gov/NIICD/index.html>

<http://www.nifc.gov/NIICD/documents.html>

http://gacc.nifc.gov/rmcc/dispatch_centers/r2ftc/FTCRadio.htm

<https://cloudrf.com/> (Must use Google Chrome web browser)