

# VHF Interoperable Channel Usage

## SUMMARY

In Colorado, many agencies still utilize VHF as a primary communications system. The standard template should include all the local National Interoperability Field Operations Guide (NIFOG) channels as published by the Office of Emergency Communications (OEC). Any Federal channels listed are only to be used to communicate with Federal agencies, when authorized, and should not be included in the standard template.

Several of the local interoperability channels are not authorized on a nation-wide scale, but instead require licensing at some level to authorize their use by local agencies. The Search and Rescue (SAR) channels, and VFIRE 24-26 require licensing before operations. The main SAR channel (155.1600 MHz.) and VFIRE 21-26 are currently licensed by the State of Colorado for mobile use by local agencies. The State-wide Interoperability Coordinator (SWIC) should be

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frequencies. An email authorization fulfills the FCC requirement for permission.

### USAGE

The best way to use the VHF interoperability frequencies is to plan for the use. This means including the use in Annual Operating Plans (AOPs), Initial Attack (IA) plans for local agencies, and Mutual Aid plans for neighboring agencies. The local, county, or Regional Communications Committees should include these frequencies in the planning for local incidents, so that the usual confusion at the outset of an incident is reduced. The plan(s) can be included in the Regional Tactical Interoperability Plans (TICPs) for each Region.

Units arriving from outside the local area can be advised of the VHF channel to be used at the Staging Area, based upon the plan set up in the Incident Action Plan (IAP), the local plan as agreed upon by the various agencies, or their assignment on the incident. The statewide recommended channel for staging is VCALL10.

Colorado has begun implementing several “standard” response VHF frequencies based upon specific agencies. The Colorado National Guard has implemented VHF and DTR radios in the Blackhawk and Chinook helicopters to assist in communications with Colorado first responders and the US Forest Service (USFS) for fire activities. The National Guard will come up on VFIRE 23 (154.2950 MHz.) to communicate with VHF units, and SIMPLEX 3 for units using the Digital Trunked Radio (DTR) system. Once on the scene, they can be directed to other channels/talkgroups/frequencies based upon the incident communications plan or other reasons. This is noted in the North Central Region TIC plan.

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When requesting the National Guard, information should be provided in the request to facilitate communications – VHF/DTR channel/talkgroup, location, and unit identification of the ground contact at the scene. This is normally done through the Div. of Homeland Security and Emergency Management, and should follow their process. The request should identify the name of the channel as well as the frequency, such as VFIRE 23, 154.2950 MHz. as an example.

This is particularly necessary if the helicopters come from Ft. Carson, as these aircraft will have to program in the designated frequency into their VHF radio, as they do not have the pre-programmed names and frequencies in the radios.

On an incident, the use of VFIRE 24-25-26 should be carefully considered, as these are “interstitial” frequencies and are interleaved between VFIRE 21-22-23. In close proximity, the use of the higher-numbered VFIRE channels can cause interference issues with the other VFIRE channels. The local COML should be aware of this issue, and consider it in the planning for the incident.

This holds true for VCALL 10, VTAC 12, VTAC 14 as well, and can cause difficulties with the other VTAC channels in that are in close proximity. Note: VTAC33-38 are only reuses of VTAC11-14 and shouldn't cause interference unless you use them as TAC channels instead of repeater function.

The Bureau of Land Management (BLM) has begun implementing VMED 28 in Wyoming and western Colorado for medical helicopters responding to their incidents. This should be information provided in our planning as well. Because VFIRE21 is so heavily relied upon for fire-ground operations needs, it is recommended that agencies and incidents consider using VMED28 as their primary air-ambulance air-to-ground channel when operating in the VHF band.

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When using the VTAC 17 repeater functionality, the local Communications Unit Leader (COML) may be using a non-NIFOG continuous tone-coded squelch (CTCSS) feature. In this case, the COML should alert adjoin areas/agencies of this use. With proper notice and programming, interference with other potential VTAC 17 users will be reduced.

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## REFERENCE DOCUMENTATION

The National Interoperability Field Operations Guide (NIFOG) is available as a cell-phone download for both Apple and Android devices.

The Colorado Field Operations Guide (CO-FOG) is a comprehensive listing of the All Hazards Regional Tactical Interoperability Communications (TIC) Plans and includes the NIFOG information as well. It is available on-line as an app.

The state of Kansas has also published the Kansas Field Operations Guide (KS-FOG). It is a collection of technical reference material to aid communications personnel in using the Kansas Statewide Interoperable Communications System (KSICS). This guide is also available on-line.

All are available at:

**<https://www.cisa.gov/safecom/public-safety-library-app>**

then VHF Interoperable Channel Usage V1.4.docx you can select from the library as listed