



WHITE PAPER

October 9, 2025

TO: FIRESCOPE Board of Directors
23300 Castle Street
Riverside, CA 92518-2200

FROM: FIRESCOPE Operations Team, Task Force, and Communications

Subcommittee TOPIC: Motorola APX Multi-Band Radio Cloning

APPROVAL: The FIRESCOPE Board of Directors approved this document on
October 9, 2025

SUMMARY

Due to requirements of local and regional radio systems used by public safety agencies in the State of California, the Motorola APX Portable Radio platform has been deployed. With the advent of multi-band radios many fire service agencies have deployed Motorola APX multi-band radios to meet their operational needs and eliminate the need to carry multiple radios. As agencies continue to invest and deploy multi-band radios the FIRESCOPE Communications Subcommittee has identified the need to provide guidance, and best practices recommendations to agencies, Incident Management Teams, and Communications Unit Leaders on the use and support of Motorola APX multi-band radios on wildland and all-hazard incidents.

The FIRESCOPE Communications Subcommittee worked with Motorola Solutions to improve the incident cloning capabilities of the Motorola APX line of portable radios to support wildland and all-hazard operations. The APX Zone Cloning Tool is a standalone tool that provides the ability to build and clone multiple radio templates in a simple PC application. This feature enables Radio-to-Radio and PC-to-Radio cloning by editing only the Front Panel Programming (FPP) functions. This application is agnostic to the presence of Trunked Radio Systems, System Keys, Encryption Keys, in the target radio and makes no changes to the code plug that would be identified as a modification in the radio and Radio Management Systems.

Cal OES Public Safety Communications has committed to training technicians that respond to incidents in the use of this cloning tool.



RECOMMENDATIONS

The Communications Subcommittee recommends the approval of a Radio Communications Job Aid that informs agencies of this capability and defines the best practices related to the purchase and deployment of Motorola APX portable radios at incidents. The information includes the following.

- Radios must be pre-configured by home agency to support zone cloning/Front Panel Programming (FPP) Prior to Incident
- Q52 or Q53 Feature Set Required
- Radios must be running APX FW Version: R34.00.00 (or later)
- Minimum 4 Zones-Clone & FPP Enabled
- Zone Password Shall Be "000000"
- Conventional Scan list Selection- Enable Clone Zone Personalities
- MPL Clone Configuration List populated with CA/NIFC CTCSS Tones 1-32

This Job Aid will be distributed through Cal OES Fire and Rescue to all Op Areas. The Job Aid would also be available on the FIRESCOPE website.

IMPLEMENTATION PLAN

Once approved the Job Aid would be distributed by Cal OES to Op Area Coordinators and to local agencies. The Job Aid would also be available on the FIRESCOPE website.

FINDINGS

The Communications Subcommittee has determined the development and implementation of the Job Aid will provide local agencies utilizing these radios with the ability to have radios cloned at incidents and eliminate the cost and need to have multiple radios on apparatus. This will provide efficiencies for Communications units when deploying radio systems and cost savings for local agencies. The end user will also not be required to become familiar with the use of multiple radios.

CONCLUSION

The adoption and implementation of the Job Aid will benefit the California Fire Service by providing an avenue for the use of communications equipment that local agencies have invested in at wildland incidents. Resources will be able to deploy quicker and communicate more efficiently at incidents. Communication units will be able to implement communications plans and radio systems more efficiently.

ATTACHMENTS

[Portable Radio Cloning Tool Guideline](#)
[Motorola Zone APX Radio Cloning Requirements](#)
[Motorola Zone Cloning Tool Release Notes](#)