



## National Interagency Incident Communications Division



March 11, 2016

**To:** Radio Users

**From:** Chief, National Interagency Incident Communications Division

**Subject:** Approved Radios

The following is a consolidated list of Fire Approved Radios, Cooperator Radios Accepted for Fire Use, and Radios Approved for Forest Health Protection. These are the only approved radios for interagency fire and Forest Health Protection (aviation) use.

### 1. Fire Approved Radios

The following radios are currently approved for interagency fire use. No new “analog only” radios will be added to this list.

#### VHF-AM

VHF-AM radios do not receive fire approval. Any FCC approved VHF-AM radio is acceptable. All VHF-AM radios used in aircraft shall meet the appropriate TSO category.

#### VHF-FM

##### Analog Portable Radios<sup>1, 2</sup>

B/K          GPH

##### Analog Mobile Radios<sup>1, 2</sup>

B/K          GMH

### P25 Digital Portable Radios

B/K	GPH upgraded to P25 digital <sup>3</sup>
Datron	Guardian G25PRV100
Midland	STP105B
Motorola	XTS 2500 <sup>4</sup>
Motorola	XTS 5000 <sup>4</sup>
Relm	DPH5102X
Relm	DPHX5102X
Relm	KNG-P150
Relm	KNG-P150S
Thales	25 PRC-6894

### P25 Digital Mobile Radios

B/K	GMH upgraded to P25 digital <sup>3</sup>
Datron	G25RMV100
Datron	G25RMV110
Datron	G25ASU001
Kenwood	TK-5710
Kenwood	TK-5720
Midland	STM-1050B
Midland	STM-1055B
Midland	STM-1115B
Relm	DMH5992
Relm	DMH5992X HP
Relm	KNG-M150

### P25 Digital Aeronautical Radios

Cobham (formerly Northern Airborne Technology)	NPX136D-000 <sup>5</sup>
Cobham (formerly Northern Airborne Technology)	NPX136D-070
Technisonic Industries	TDFM-136
Technisonic Industries	TDFM-136NV
Technisonic Industries	TDFM-136A
Technisonic Industries	TDFM-136A/NV
Technisonic Industries	TDFM-136B <sup>6</sup>
Technisonic Industries	TDFM-136B/NV <sup>6</sup>

## **UHF-FM**

### P25 Digital Portable Radios

Midland	STP404A
Motorola	XTS 2500 <sup>4</sup>
Motorola	XTS 5000 <sup>4</sup>
Relm	KNG-P400
Relm	KNG-P400S

### P25 Digital Mobile Radios

Kenwood	TK-5810
Kenwood	TK-5820
Relm	KNG-M400
Midland	STM-4040A
Midland	STM-4045A

## **Multi-band**

### P25 Digital Portable Radios Capable of Operating in More Than One Frequency

Band – 136-174 MHz, 380-520 MHz, 700-800 MHz, trunked

Thales	Liberty
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### P25 Digital Aeronautical Radios Capable of Operating in More Than One

Frequency Band – 136-174 MHz, 380-520 MHz, 700-800 MHz, trunked

Technisonic Industries	TDFM-9000 <sup>7</sup>
Technisonic Industries	TDFM-9100 <sup>7</sup>
Technisonic Industries	TDFM-9200 <sup>7</sup>
Technisonic Industries	TDFM-9300 <sup>7</sup>

## 2. Cooperator Radios Accepted for Fire Use

The following cooperator radios are currently accepted for interagency fire use. The US Forest Service, Department of the Interior and their contractors are not allowed to utilize these radios as “fire” radios. Cooperators may utilize these radios in addition to any radios listed in Section 1: Fire Approved Radios.

### Portable Radios

B/K	GPH-CMD
Motorola	APX 6000 (VHF-FM version)
Relm	DPHX5102X-CMD
Relm	KNG-P150-CMD

### Aeronautical Radio Conditions

Aeronautical cooperator radios accepted for fire use are allowed under the following conditions.

- Used solely by cooperators (law enforcement, EMS, military, etc.)
- Contain at least one conventional P25 digital VHF-FM RF module/transceiver operating from 136 to 174 MHz with front panel programmability (FPP).
- Any of the following options are acceptable to meet the Air Guard requirement (Tx & Rx 168.6250 MHz, TX CTCSS 110.9 Hz):
  - A second conventional P25 digital VHF-FM RF module/transceiver operating from 136 to 174 MHz with FPP.
  - A non-FPP conventional P25 digital VHF-FM RF module/transceiver operating from 136 to 174 MHz with a preset channel dedicated to Air Guard.
  - A P25 digital trunked VHF-FM RF module/transceiver operating from 136 to 174 MHz with a non-trunked preset channel dedicated to Air Guard.

### Multiband Aeronautical Radios

Cobham	RT-5000/C-5000 <sup>8</sup>
Technisonic Industries	TDFM-6000 Series <sup>9, 10</sup>
Technisonic Industries	TDFM-7000 Series
Technisonic Industries	TDFM-7300 Series

### 3. Radios Approved for Forest Health Protection

The following analog aviation radios are currently approved for Forest Service Forest Health Protection (FHP). FHP may also utilize approved P25 Digital Radios listed under Section 1: Fire Approved Radios. The below analog radios are not allowed to be used in any aspect of interagency fire (reconnaissance or air tactical).

#### Analog VHF-FM Aeronautical Radios<sup>11</sup>

AEM (formerly Northern Airborne Technology)	NTX138-050
Technisonic Industries	TFM-138 (serial number 1540 & up)
Technisonic Industries	TFM-138B/C/D
Technisonic Industries	TFM-500

Questions concerning radios and requirements on this list can be directed to: Bill Forsyth (208-387-5720) [bforsyth@fs.fed.us](mailto:bforsyth@fs.fed.us) (portable and mobile radios) or Frank Smith (208-387-5648) [fsmith@fs.fed.us](mailto:fsmith@fs.fed.us) (aeronautical radios). Radio vendors may contact Bill Forsyth to submit products for evaluation for inclusion on the Fire Approved Radios list.

/s/

**KIM McCUTCHAN**  
Chief, NIICD/NIFC

- <sup>1</sup> Purchases of new analog radios are not recommended. At some point in the future, fire will require that only P25 digital radios be used.
- <sup>2</sup> Several contracts specify that only P25 digital radios are acceptable. These “analog only” radios are not acceptable for contracts requiring P25 digital radios.
- <sup>3</sup> When a P25 digital radio is required and a BK GPH/GMH radio with P25 digital upgrade is used, the user must provide proof that the radio has been upgraded prior to it being accepted.
- <sup>4</sup> The Motorola XTS2500 and XTS5000 P25 digital portable radios are fire compliant when operating radio software R.15.00.05 or newer.
- <sup>5</sup> The Cobham (formerly Northern Airborne Technology) NPX136D-000 is only acceptable for fire when used as a substitute for the AUX-FM provisions and an Air Guard receiver for this radio is not contractually required. The NPX136D-000 is not acceptable as a stand-alone radio.
- <sup>6</sup> The Technisonic Industries TDFM-136B and TDFM-136B/NV are fire compliant when operating Radio Info: Main Code 1.1.4 or newer and has Modification #2 installed.
- <sup>7</sup> The Technisonic Industries TDFM-9000/9100/9200/9300 radios are highly dependent upon settings in Motorola’s CPS software. CPS software is very complex and settings should only be changed by a person trained in CPS use. TDFM-9000/9100/9200/9300 radios are fire compliant under the following conditions:
- Contain at least one conventional P25 digital VHF-FM RF module operating from 136 to 174 MHz with front panel programmability (FPP) enabled.
  - Any of the following options are acceptable to meet the Air Guard requirement (transmit & receive 168.6250 MHz with a transmit CTCSS tone of 110.9 Hz):
    - A second conventional P25 digital VHF-FM RF module operating from 136 to 174 MHz with FPP enabled.
    - A non-FPP conventional P25 digital VHF-FM RF module operating from 136 to 174 MHz with a preset channel dedicated to Air Guard.
    - A P25 digital trunked VHF-FM RF module operating from 136 to 174 MHz with a non-trunked preset channel dedicated to Air Guard.
  - Soft Keys (in order of use) (CPS = Menu Items):
    - Zone, FPP, Scan, Mute, Info.
    - The Zone containing FPP should be identified as “Zone 1 FPP” or similar. When only the Zone having FPP exists then the soft key “Zone” is not required.
  - Function Keys (CPS = Buttons - General):
    - F1 – Set to Monitor.
  - Keypad Keys (CPS = Switches):
    - M UP/M DN – Set as channel select.
    - TSW – Set as Blank (A)/PL Disable (B)/Blank (C).

- Power Knob:
  - Selections shall include Volume Adjust and Channel Changes.
- All features on the FPP screen shall be editable and have the ability to be saved to the selected channel.
- Other functions enabled:
  - DTMF operation
  - 90 second time-out-timer

<sup>8</sup> Acceptable RT-5000 transceiver versions are only those with MODs 34, 36, or 38 installed using a C-5000 controller with Software Identification 12 (SWID 12) loaded.

<sup>9</sup> A Technisonic AMS-6000 Audio Panel is highly recommended when using the TDFM-6000 series radio.

<sup>10</sup> The Technisonic TDFM-6148 radio does not meet the listed conditions for single radio installations.

<sup>11</sup> This category of approved radios will be removed once the Forest Service mandates that only P25 digital radios be used.